Air Quality Assessment

Fitzgerald Trailers, LLC
(AI# 3163)

Prepared with the assistance of

Process Description and Emission Calculations
Fitzgerald Trailers, LLC (AI# 3361)

Process Description

Fitzgerald Trailers is a new company located in Tompkinsville, Kentucky that will manufacture 53' dry van composite trailers. The facility has spent the past two years designing the trailer and working to attract investment and hopes to begin the manufacturing process by June of 2024.

Once production begins finished 53' composite dry van (trailers) will be assembled at the facility. As part of the assembly process the facility will utilize two MIG welding units to assemble the frame and other sub structural components of the dry vans. The welding units will be used indoors with open bay doors (during the warm months) with no control devices.

The dry van trailers will have logistics post that are riveted together to combine composite panels on either side. The posts are extruded aluminum and will be purchased from an unrelated third party. These posts will be painted in the paint booth once a permit is secured. Prior to securing the permit any painting of the post will occur with a vendor in Tennessee. The composite panels which will make up most of the trailer surface area will come pre-painted from a third-party supplier. Once a permit is received and the spray booth becomes operational the aluminum posts will be cleaned using OTO Quick Degreaser from AkzoNobel. The cleaner comes ready to use and will be hand applied using towels. An SDS for this material has been included as part of this application package. Once the material is cleaned the posts will be taken to the spray booth to be coated using LV151 Direct-To-Metal topcoat mixture made up of 95% ready mix color (Fitzgerald Trailer White) and five % Air Dry Additive, which is then mixed with Hardener at a ratio of five parts to one. A technical data sheet with mixing information has been included with this permit application.

The spray booth contains an intake fan, a natural gas heater, and a filtered exit stack, which exits through the roof of the building. The facility has two Kremlin Xcite spray guns, but only one gun can be used at a time. Drying will occur in the spray booth, which is heated to 130°F using a 1.20 MMBtu/hr. natural gas burning direct heat exchanger. Painting will take approximately 30-60 minutes per batch of logistics posts depending on the number of posts in the batch. Drying will take approximately 30 minutes and the booth cannot be used for painting during the drying cycle. Equipment specifications for the spray booth and guns have been included along with SDS for the coating materials and the spray gun cleaning solvent.

The facility will operate four days a week, ten and a half hours a day Monday through Thursday. The facility will operate year-round with exceptions being made for six holidays.

Emission Calculations

Based on operational and manufacturer data provided by the facility, actual rates were determined and then modified to represent potential usage rates for all emission point sources. Potential operating hours for all units is 8760 hours per year, except for the spray coating operations. Painting cannot occur while the trailers are drying and curing inside the spray booth, a process that takes 30 minutes per trailer. Therefore, there is a bottleneck that limits painting to 5840 hours per year, and use of the natural gas heater in the spray booth (for drying and curing) to 2920 hours per year.

Emission Point

EP01-1 – Spray Booth Topcoat Mixture (Franklin Trailer White)

- Throughput: 24.83 gal/hr.
- Emission Factor Source: SDS
- Control: Fabric Filter, Transfer Efficiency
    - Particulate matter control of 90.00% for filters
    - Transfer Efficiency of 86.00% for particulate matter

EP01-2 – Spray Booth Topcoat Mixture (Hardener)

- Throughput: 5.28 gal/hr.
- Emission Factor Source: SDS
- Control: Fabric Filter, Transfer Efficiency
    - Particulate matter control of 90.00% for filters
    - Transfer Efficiency of 86.00% for particulate matter

EP01-3 – Spray Booth Topcoat Mixture (Air Dry Additive)

- Throughput: 1.59 gal/hr.
- Emission Factor Source: SDS
- Control: Fabric Filter, Transfer Efficiency
    - Particulate matter control of 90.00% for filters
    - Transfer Efficiency of 86.00% for particulate matter

EP01-4 – Spray Booth - Heater

- Throughput: 1.18E-03 MMScf/hr.
- Emission Factor Source: AP-42 Chapter 1.4
- Control: None Known

EP02 – Spray Booth Cleanout (Solvent Usage)

- Throughput: 1.67E-01 gal/hr.
- Emission Factor Source: SDS
- Control: None Known

EP03 - Hand Applied – Metal Degreaser

- Throughput: 1.90E-01 gal/hr.
- Emission Factor Source: SDS
- Control: None Known, Transfer Efficiency
    - Transfer Efficiency of 100% for particulate matter

Insignificant Activities

IA01 – MIG Welding (2 Units)

- Throughput: 7.42E-03 lb/lb_{1000}
- Emission Factor Source: AP-42 Chapter 12.19
- Control: Partial Enclosure
    - Particulate Matter control of 50.00% partial enclosure

Potentially Applicable Regulations

- 401 KAR 59:010 - New process operations
- 401 KAR 63:020 - Potentially hazardous matter or toxic substances
- 401 KAR 52:030 – Federally-enforceable permits for nonmajor sources

Non-applicable Regulations:

- 40 CFR 63 Subpart XXXXXX - National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories
    - Facility is under SIC 3537, which does not appear in list of applicable SIC codes.

- 40 CFR 63 Subpart HHHHHH - Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources
    - Facility does not spray apply any coatings with target HAPs (chromium, lead, manganese, or nickel).

Recommendation

Based on potential emission calculations and applicable requirements, the Kentucky Environmental Compliance Assistance Program (ECAP) is recommending that ***Fitzgerald Trailers, LLC*** file an application for a ***Conditional Major Permit***. Facility-wide emissions are included below.

Facility-wide Emissions

Pollutant	Uncontrolled TPY	Controlled TPY
PM	70.71	7.15
PM_{10}	70.71	7.15
VOC	342.42	342.42
SO_2	1.03E-03	1.03E-03
NO_X	1.72E-01	1.72E-01
Lead	8.59E-07	8.59E-07
CO	1.44E-01	1.44E-01
N_2O	3.86E-03	3.86E-03
CH_4	3.95E-03	3.95E-03
Formaldehyde	1.29E-04	1.29E-04
Benzene	3.61E-06	3.61E-06
Toluene	2.34	2.34
Ethylbenzene	1.18	1.18
Xylene	4.43	4.43
Naphthalene	1.05E-06	1.05E-06
Total Haps	7.95	7.95

Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

(502) 564-3999

DEP7007AI

Administrative Information

___ Section AI.1: Source Information

___ Section AI.2: Applicant Information

___ Section AI.3: Owner Information

___ Section AI.4: Type of Application

___ Section AI.5: Other Required Information

___ Section AI.6: Signature Block

___ Section AI.7: Notes, Comments, and Explanations

Additional Documentation

___ Additional Documentation attached

Source Name: **Fitzgerald Trailer LLC**

KY EIS (AFS) #: **21-**

Permit #:

Agency Interest (AI) ID: **3163**

Date: **4/24/2024**

Section AI.1: Source Information

Physical Location Address:	**Street:**	667 Capp Harlan Rd				
	City:	Tompkinsville	**County:**	Monroe	**Zip Code:**	42167
Mailing Address:	**Street or P.O. Box:**	same as above				
	City:		**State:**		**Zip Code:**	

Standard Coordinates for Source Physical Location

Longitude: -854029.72 (decimal degrees) **Latitude:** 364150.77 (decimal degrees)

Primary (NAICS) Category: 31-33 Manufacuring **Primary NAICS #:** 336212

#

Classification (SIC) Category: D- Manufacuring **Primary SIC #:** 3537

Briefly discuss the type of business conducted at this site: The company will be manufacuring 53' dry van composite trailers.

Description of Area Surrounding Source: ☑ Rural Area ☐ Industrial Park ☐ Residential Area ☐ Urban Area ☐ Industrial Area ☐ Commercial Area

Is any part of the source located on federal land? ☐ Yes ☑ No

Number of Employees: 15

Approximate distance to nearest residence or commercial property: *.05 miles*

Property Area: **236,000 sq ft, 35 ac**

Is this source portable? ☐ Yes ☑ No

What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?

NPDES/KPDES:	☐ Currently Hold	☐ Need	☑ N/A
Solid Waste:	☐ Currently Hold	☐ Need	☑ N/A
RCRA:	☐ Currently Hold	☐ Need	☑ N/A
UST:	☐ Currently Hold	☐ Need	☑ N/A

Type of Regulated Waste Activity:

☐ Mixed Waste Generator ☐ Generator ☐ Recycler ☐ Other: _____

☐ U.S. Importer of Hazardous Waste ☐ Transporter ☐ Treatment/Storage/Disposal Facility ☑ N/A

Section AI.2: Applicant Information

Applicant Name: Fitzgerald Trailers LLC

Title: (if individual)

Mailing Address:
Street or P.O. Box: 667 Capp Harlan Rd
City: Tompkinsville **State:** KY **Zip Code:** 42167

Email: (if individual)

Phone:

Technical Contact

Name: Len Braner

Title: COO

Mailing Address:
Street or P.O. Box: 667 Capp Harlan Rd
City: Tompkinsville **State:** KY **Zip Code:** 42167

Email: lenb@fitzgeraldtrailers.com

Phone: 1-866-216-0161

Air Permit Contact for Source

Name: Nick Forbes

Title: Engineer

Mailing Address:
Street or P.O. Box: 667 Capp Harlan Rd
City: Tompkinsville **State:** KY **Zip Code:** 42167

Email: nickf@fitzgeraldtrailers.com

Phone: 1-866-216-0161

Section AI.3: Owner Information

☐ **Owner same as applicant**

Name: Robert Fitzgerald

Title: President

Mailing Address:
Street or P.O. Box: 320 Oak Hill Rd
City: Livingston **State:** TN **Zip Code:** 38580

Email:

Phone: 866-216-0161

List names of owners and officers of the company who have an interest in the company of 5% or more.

Name	Position
Only owner and officer with 5% or more is already listed	

Section AI.4: Type of Application

Current Status: ☐ Title V ☐ Conditional Major ☐ State-Origin ☐ General Permit ☐ Registration ☑ None

Requested Action: *(check all that apply)*

☐ Name Change	☐ Initial Registration	☐ Significant Revision	☐ Administrative Permit Amendment
☐ Renewal Permit	☐ Revised Registration	☐ Minor Revision	☑ Initial Source-wide OperatingPermit
☐ 502(b)(10)Change	☐ Extension Request	☐ Addition of New Facility	☐ Portable Plant Relocation Notice
☐ Revision	☐ Off Permit Change	☐ Landfill Alternate Compliance Submittal	☐ Modification of Existing Facilities
☐ Ownership Change	☐ Closure		

Requested Status: ☐ Title V ☑ Conditional Major ☐ State-Origin ☐ PSD ☐ NSR ☐ Other: _____

Is the source requesting a limitation of potential emissions? ☑ Yes ☐ No

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☐ Particulate Matter		☐ Single HAP	
☑ Volatile Organic Compounds (VOC)	90 TPY	☐ Combined HAPs	
☐ Carbon Monoxide		☐ Air Toxics (40 CFR 68, Subpart F)	
☐ Nitrogen Oxides		☐ Carbon Dioxide	
☐ Sulfur Dioxide		☐ Greenhouse Gases (GHG)	
☐ Lead		☐ Other	

For New Construction:

Proposed Start Date of Construction: *(MM/YYYY)* Exsiting

Proposed Operation Start-Up Date: *(MM/YYYY)* 06/2024

For Modifications:

Proposed Start Date of Modification: *(MM/YYYY)* N/A

Proposed Operation Start-Up Date: *(MM/YYYY)* N/A

Applicant is seeking coverage under a permit shield. ☐ **Yes** ☐ **No**

Identify any non-applicable requirements for which permit shield is sought on a separate attachment to the application.

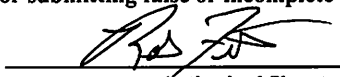
Section AI.5 Other Required Information

Indicate the documents attached as part of this application:

- [ ] DEP7007A Indirect Heat Exchangers and Turbines
- [x] DEP7007B Manufacturing or Processing Operations
- [ ] DEP7007C Incinerators and Waste Burners
- [ ] DEP7007F Episodc Standby Plan
- [ ] DEP7007J Volatile Liquid Storage
- [x] DEP7007K Surface Coating or Printing Operations
- [ ] DEP7007L Mineral Processes
- [ ] DEP7007M Metal Cleaning Degreasers
- [x] DEP7007N Source Emissions Profile
- [ ] DEP7007P Perchloroethylene Dry Cleaning Systems
- [ ] DEP7007R Emission Offset Credit
- [ ] DEP7007S Service Stations
- [ ] DEP7007T Metal Plating and Surface Treatment Operations
- [x] DEP7007V Applicable Requirements and Compliance Activities
- [ ] DEP7007Y Good Engineering Practice and Stack Height Determination
- [ ] DEP7007AA Compliance Schedule for Non-complying Emission Units
- [ ] DEP7007BB Certified Progress Report
- [ ] DEP7007CC Compliance Certification
- [x] DEP7007DD Insignificant Activities
- [ ] DEP7007EE Internal Combustion Engines
- [ ] DEP7007FF Secondary Aluminum Processing
- [x] DEP7007GG Control Equipment
- [ ] DEP7007HH Haul Roads
- [ ] Confidentiality Claim
- [ ] Ownership Change Form
- [x] Secretary of State Certificate
- [x] Flowcharts or diagrams depicting process
- [ ] Digital Line Graphs (DLG) files of buldings, roads, etc.
- [x] Site Map
- [x] Map or drawing depicting location of facility
- [x] Safety Data Sheet (SDS)
- [ ] Emergency Response Plan
- [x] Other: _____

Section AI.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.



Authorized Signature

4-27-2024

Date

Robert Fitzgerald

Type or Printed Name of Signatory

Ceo

Title of Signatory

*Responsible official as defined by 401 KAR 52:001.

Section AI.7: Notes, Comments, and Explanations

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007N

Source Emissions Profile

__ Section N.1: Emission Summary
__ Section N.2: Stack Information
__ Section N.3: Fugitive Information
__ Section N.4: Notes, Comments, and Explanations

Additional Documentation

___ Complete DEP7007AI

Source Name: Fitzgerald Trailers, LLC
KY EIS (AFS) #: 21-
Permit #:
Agency Interest (AI) ID: 3163
Date: 4/23/2024

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)*	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
EP01	Spray Booth Topcoat Mixture	1	Franklin Trailer White	Fabric Filter	1	1	24.83 gal/hr.	PM	7.04E-01 lb/gal	SDS	100.00%	90.00%	17.48	1.75	51.03	5.10
								PM_{10}	7.04E-01 lb/gal	SDS	100.00%	90.00%	17.48	1.75	51.03	5.10
								VOC	4.00 lb/gal	SDS	0.00%	0.00%	99.34	99.34	290.07	290.07
EP01	Spray Booth Topcoat Mixture	2	Hardener	Fabric Filter	1	1	5.28 gal/hr.	PM	1.16 lb/gal	SDS	100.00%	90.00%	6.14	6.14E-01	17.92	1.79
								PM_{10}	1.16 lb/gal	SDS	100.00%	90.00%	6.14	6.14E-01	17.92	1.79
								VOC	9.73E-01 lb/gal	SDS	0.00%	0.00%	5.14	5.14	15.02	15.02
EP01	Spray Booth Topcoat Mixture	3	Air Dry Additive	Fabric Filter	1	1	1.59 gal/hr.	PM	3.41E-01 lb/gal	SDS	100.00%	90.00%	5.40E-01	5.40E-02	1.58	1.58E-01
								PM_{10}	3.41E-01 lb/gal	SDS	100.00%	90.00%	5.40E-01	5.40E-02	1.58	1.58E-01
								VOC	5.70 lb/gal	SDS	0.00%	0.00%	9.04	9.04	26.38	26.38

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)*	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
EP01	Spray Booth	4	Heater	None Known	N/A	1	1.18E-03 MMscf/hr.	CO	84.00 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	9.88E-02	9.88E-02	1.44E-01	1.44E-01
								NOx	100.00 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	1.18E-01	1.18E-01	1.72E-01	1.72E-01
								PT	7.60 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	8.94E-03	8.94E-03	1.31E-02	1.31E-02
								PM_{10}	5.70 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	6.71E-03	6.71E-03	9.79E-03	9.79E-03
								SO_2	6.00E-01 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	7.06E-04	7.06E-04	1.03E-03	1.03E-03
								VOC	5.50 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	6.47E-03	6.47E-03	9.45E-03	9.45E-03
								Lead	5.00E-04 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	5.88E-07	5.88E-07	8.59E-07	8.59E-07
								TOC	11.00 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	1.29E-02	1.29E-02	1.89E-02	1.89E-02
								CO_2	120000 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	141.18	141.18	206.12	206.12
								N_2O	2.20 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	2.59E-03	2.59E-03	3.78E-03	3.78E-03
								CH_4	2.30 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	2.71E-03	2.71E-03	3.95E-03	3.95E-03
								Formaldehyde	7.50E-02 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	8.82E-05	8.82E-05	1.29E-04	1.29E-04
								Benzene	2.10E-03 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	2.47E-06	2.47E-06	3.61E-06	3.61E-06
								Naphthalene	6.10E-04 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	7.18E-07	7.18E-07	1.05E-06	1.05E-06
								Toluene	3.40E-03 lb/MMscf	AP-42 Chap 1.4	0.00%	0.00%	4.00E-06	4.00E-06	5.84E-06	5.84E-06

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)*	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
EP02	Spray Gun Cleanout	N/A	N/A	None Known	N/A	N/A	1.67E-01 gal/hr.	VOC	6.92 lb/gal	SDS	0.00%	0.00%	1.15	1.15	5.05	5.05
								Toluene	3.11 lb/gal	SDS	0.00%	0.00%	5.19E-01	5.19E-01	2.27	2.27
EP03	Hand Applied Materials Metal Degreaser	N/A	N/A	None Known	N/A	N/A	1.90E-01 gal/hr.	VOC	7.06 lb/gal	SDS	0.00%	0.00%	1.34	1.34	5.89	5.89
								Xylene	5.31 lb/gal	SDS	0.00%	0.00%	1.01	1.01	4.43	4.43
								Ethylbenzene	1.41 lb/gal	SDS	0.00%	0.00%	2.69E-01	2.69E-01	1.18	1.18
								Toluene	8.12E-02 lb/gal	SDS	0.00%	0.00%	1.55E-02	1.55E-02	6.77E-02	6.77E-02
IA01	MIG Welding (2 units)	N/A	N/A	Partial Enclosure	2	N/A	7.42E-03 lb/lb_{1000}	PM	5.20 lb/lb_{1000}	AP-42 Chap 12.19	100.00%	50.00%	3.86E-02	1.93E-02	1.69E-01	8.45E-02
								PM_{10}	5.20 lb/lb_{1000}	AP-42 Chap 12.19	100.00%	50.00%	3.86E-02	1.93E-02	1.69E-01	8.45E-02
								Chromium	1.00E-02 lb/lb_{1000}	AP-42 Chap 12.19	100.00%	50.00%	7.42E-05	3.71E-05	3.25E-04	1.62E-04
								Cobalt	1.00E-02 lb/lb_{1000}	AP-42 Chap 12.19	100.00%	50.00%	7.42E-05	3.71E-05	3.25E-04	1.62E-04
								Manganese	3.18 lb/lb_{1000}	AP-42 Chap 12.19	100.00%	50.00%	2.36E-02	1.18E-02	1.03E-01	5.17E-02
								Nickel	1.00E-02 lb/lb_{1000}	AP-42 Chap 12.19	100.00%	50.00%	7.42E-05	3.71E-05	3.25E-04	1.62E-04

Section N.2: Stack Information

UTM Zone:

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter *(ft)*	Height *(ft)*	Base Elevation *(ft)*	Northing *(m)*	Easting *(m)*	Flowrate *(acfm)*	Temperature *(° F)*	Exit Velocity *(ft/sec)*
1	EP01-1 through EP01-4	2.50	40.00	919.00	4062073	618437	8850.00	70.00	30.05

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side *(ft)*	Length of the Y Side *(ft)*	Northing *(m)*	Easting *(m)*	Release Temperature *(°F)*	Release Height *(ft)*
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Section N.4: Notes, Comments, and Explanations

DEP7007K

Surface Coating or Printing Operations

Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

(502) 564-3999

__ Section K.1: Process Information

__ Section K.2: Coating Operations

__ Section K.3: Other Operations

__ Section K.4: Coatings/Printing Materials as Applied

__ Section K.5: HAP-containing Coatings/Printing Materials

__ Section K.6: Notes, Comments, and Explanations

Additional Documentation

___ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG.

___ Attach SDS or Technical Sheets for all Coating/Printing Materials

___ Attach a flow diagram

Source Name: **Fitzgerald Trailers, LLC**

KY EIS (AFS) #: **21-**

Permit #:

Agency Interest (AI) ID: **3163**

Date: **4/24/2024**

Section K.1: Process Information

Emission Unit #: EP01-1 through EP01-3

Emission Unit Name: Spray Booth

Coating/Printing Line Name: Spray Booth Topcoat Mixture (Color (Franklin Trailer White), Hardener, and Air Dry Additive)

Proposed/Actual Date of Construction: *(MM/YYYY)* Existing

List Applicable Regulations: 401 KAR 59:010; 401 KAR 63:020

Describe Overall Process: The facility will manufacture 53 foot dry van composite trailers - pre cut parts will arrive on-site and be put together at the facility - facility will use MIG Welding (2 units) and have a spray booth that will be used to paint extruded aluminum posts.

Describe Coatings/Printing Materials: Topcoat color, hardener and air dry additive.

Identify the Material that is Coated/Printed: ☑ Metal ☐ Vinyl ☐ Plastics ☐ Wood ☐ Foil ☐ Paper ☐ Other Substrate

Provide detailed description of material coated/printed: Extruded Aluminum Posts

Provide approximate dimensions and range of sizes of parts being coated or printed: Unknown

Identify the Type of Operation: ☐ Continuous ☑ Batch ☐ Other:

Describe Surface Preparation/Pretreatment Steps: **Posts are cleaned by hand using OTO Quick Degreaser from AkzoNobel**

For Coating Operations: ☑ Spray ☐ Flow ☐ Dip tank ☐ Electrodeposition ☐ Brush ☐ Powder ☐ Roller Coat ☐ Other:

For Printing Operations: *(Select all that apply)* ☐ Web ☐ Rotogravure ☐ Heatset ☐ Lithographic ☐ Sheetfed ☐ Letterpress ☐ Non-heatset ☐ Flexographic ☐ Other: N/A

Describe Final Product: Painted extruded aluminun posts and manufactured dry van trailers.

Check the category that most closely describes this unit:

☐ Large Appliance Coating
☐ Auto or Light-Duty Truck Coating
☐ Metal Furniture Coating
☐ Metal Coil Coating
☐ Beverage Can Coating
☑ Miscellaneious Metal Parts Coating
☐ Magnet Wire Insulation Coating
☐ Flat Wood Panel Coating
☐ Fabric, Vinyl, or Paper Coating
☐ Boat Manufacturing/ Ship Repair
☐ Pressure Sensitive Tape and Label Coating
☐ Magnet Tape Coating
☐ Publication Rotogravure Printing
☐ Coating of Plastic Parts for Business Machines
☐ Flexible Vinyl and Urethane Coating and Printing
☐ Graphic Arts using Rotogravure and Flexographic Printing
☐ Other: _____

Section K.2: Coating Operations

K.2A: For Spray Coating

Gun/Booth ID	Describe Function	Type	Mode	Maximum Design Application Rate *(gal/hr or lb/hr)*		Describe how maximum rate was determined
EP01-1 through EP01-3	Spray Coating Booth - To apply topcoat mixture	☐ Conventional Air Gun ☐ Airless ☑ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☑ Manual ☐ Automatic	31.70	gal/hr	☐ Testing ☑ Equipment Specification Sheet ☐ Estimation
		☐ Conventional Air Gun ☐ Airless ☐ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☐ Automatic			☐ Testing ☐ Equipment Specification Sheet ☐ Estimation
		☐ Conventional Air Gun ☐ Airless ☐ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☐ Automatic			☐ Testing ☐ Equipment Specification Sheet ☐ Estimation

If spray guns are used simultaneously, describe:	N/A

K.2B: For Brush Coating

Describe Function:	
Maximum Coating Application Rate: *(gal/hr)*	

K.2C: For Roller Coating

Roller Coat ID	Describe Function	Maximum Coating Application Rate *(gal/hr)*	Describe how maximum rate was determined
			☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
			☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
			☐ Testing ☐ Estimation ☐ Equipment Specification Sheet

K.2D: For Powder Coating

Powder Coat ID	Describe Function	Maximum Coating Application Rate *(gal/hr or lb/hr)*		Describe how maximum rate was determined
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet

If powder coating material is recycled, describe:	

K.2E: For Flow Coating

Flow Coat ID	Describe Function	Maximum Coating Application Rate *(gal/hr or lb/hr)*		Describe how maximum rate was determined
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet

K.2F: For Dip Tank/Electrodeposition Coating

Tank ID	Describe Function	Maximum Make-up Rate *(gal/hr or lb/hr)*		Describe how maximum rate was determined
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
				☐ Testing ☐ Estimation ☐ Equipment Specification Sheet

Section K.3: Other Operations

K.3A: For Finishing

Describe Finishing Processes: *Complete Form DEP7007B as applicable*	

K.3B: For Curing/Drying

Describe Curing/Drying Processes:	Description	Rated Capacity *(MMBtu/hr)*	Fuel	Control Device/Stack ID
NG Heater located in paint booth	NG direct exchange heater	1.2	Natural Gas	None Known/Stack ID = 1

K.3C: For Purge

Type: _____

Daily Usage: _____ gal/day

K.3D: For Clean-up

Type: ☑ Manual ☐ Automatic

Daily Usage: 1.67E-01 gal/hr. hrs/day

Operating Hours: 10.50 hrs per day

K.3E: For Other Equipment

Describe Processes:	

Section K.4: Coatings/Printing Materials As Applied

Include SDS or Technical Sheets for all coating/printing materials used.

Trade Name of Material	Description *(Identify as coating, ink, fountain solution, blanket wash, cleaning solvent, thinning solvent, auto wash, manual wash, etc.)*	Emission Unit/Coating ID where material is used	SCC Code	SCC Code Units	Density *(lb/gal)*	Solid Content *(lb/gal)*	VOC Content *(lb/gal)*	Emission Factor for PM* *(lb/SCC)*	Transfer Efficiency *(%)*	Emission Factor for VOC *(lb/SCC)*	Capture Efficiency *(%)*	Control Device/ Stack ID
LV151 DTM Topcoat Mixture	Mixed Color - Franklin Trailer White	EP01-1	4-02-001-10	gallons	8.98	5.03	4.00	5.03	86.00	4.00	90.00	1
LV151 DTM Topcoat Mixture	Hardener	EP01-2	4-02-001-10	gallons	9.27	8.30	9.73E-01	8.30	86.00	9.73E-01	90.00	1
LV151 DTM Topcoat Mixture	Air Dry Additive	EP01-3	4-02-001-10	gallons	8.16	2.43	5.70	2.43	86.00	5.70	90.00	1
Cleaning Solvent	Cleaning Solvent for Spray Gun	EP02	4-02-009-22	gallons	6.92	0.00	6.92	N/A	N/A	6.92	N/A	N/A

Section K.5: Hazardous Air Pollutant-containing Coatings/Printing Materials

List each individual hazardous air pollutant (HAP) contained in each material.

Trade Name of Material	HAP Name	HAP CAS #	Identify Solid (*S*) or Volatile (*V*)	HAP % by weight	HAP Emission Factor *(lb/SCC)*	Control Device/ Stack ID
LV151 DTM Fitzgerald Trailer White	N/A	N/A	N/A	N/A	N/A	Fabric Filter/Stack ID = 1
LV151 DTM Hardener	N/A	N/A	N/A	N/A	N/A	Fabric Filter/Stack ID = 1
LV151 DTM Air Dry Additive	N/A	N/A	N/A	N/A	N/A	Fabric Filter/Stack ID = 1
Cleaning Solvent	Toluene	108-88-3	V	45.00	3.11	N/A

Section K.6: Notes, Comments, and Explanations

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007B

Manufacturing or Processing Operations

___ Section B.1: Process Information
___ Section B.2: Materials and Fuel Information
___ Section B.3: Notes, Comments, and Explanations

Additional Documentation

___ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG.
___ Attach a flow diagram
___ Attach SDS

Source Name: **Fitzgerald Trailers, LLC**
KY EIS (AFS) #: **21-**
Permit #:
Agency Interest (AI) ID: **3163**
Date: **4/24/2024**

Section B.1: Process Information

Emission Unit #	Emission Unit Name	Describe Emission Unit	Process ID	Process Name	Manufacturer	Model No.	Proposed/Actual Date of Construction Commencement *(MM/YYYY)*	Is the Process Continuous or Batch?	Number of Batches per 24 Hours *(if applicable)*	Hours per Batch *(if applicable)*
EP01	Spray Booth - Heater	NG Burner - Direct Heat Exchanger	4	Heater	Bananza Air Management Systems, Inc.	Unknown	Existing	Batch	TBD	TBD

Section B.2: Materials and Fuel Information

**Maximum yearly fuel usage rate only applies if applicant request operating restrictions through federally enforceable limitations.*

Emission Unit #	Emission Unit Name	Name of Raw Materials Input	Maximum Quantity of Each Raw Material Input		Total Process Weight Rate for Emission Unit *(tons/hr)*	Name of Finished Materials	Maximum Quantity of Each Finished Material Output		Fuel Type	Maximum Hourly Fuel Usage Rate		Maximum Yearly Fuel Usage Rate		Sulfur Content *(%)*	Ash Content *(%)*
				(Specify Units/hr)				*(Specify Units/hr)*			*(Specify Units)*		*(Specify Units)*		
IA01	NG Heater	Topcoat Paint Mixture	31.70	gal/hr.	1.42E-01	Dried paint mixture	31.70	gal/hr.	Natural Gas	1.18E-03	MMscf/hr	3.45	MMscf/yr.	0.01	0.00

Section B.3: Notes, Comments, and Explanations

Division for Air Quality
300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007DD

Insignificant Activities

___ Section DD.1: Table of Insignificant Activities
___ Section DD.2: Signature Block
___ Section DD.3: Notes, Comments, and Explanations

Source Name: **Franklin Trailers, LLC**

KY EIS (AFS) #: **21-**

Permit #:

Agency Interest (AI) ID: **3163**

Date: **4/24/2024**

Section DD.1: Table of Insignificant Activities

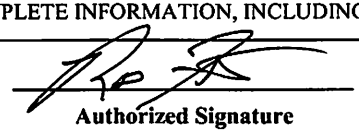
*Identify each activity with a unique Insignificant Activity number (IA #); for example: 1, 2, 3… etc.

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
IA01	MIG Welding (2 Units)	N/A	401 KAR 59:010	PM: 1.69E-01 Uncontrolled TPY PM_{10}: 1.69E-01 Uncontrolled TPY
			401 KAR 63:020	Chromium: 3.25E-04 Uncontrolled TPY Cobalt: 3.25E-04 Uncontrolled TPY Manganese: 1.03E-01 Uncontrolled TPY
			401 KAR 63:020	Nickel: 3.25E-04 Uncontrolled TPY

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions

Section DD.2: Signature Block

I, THE UNDERSIGNED, HEREBY CERTIFY UNDER PENALTY OF LAW, THAT I AM A RESPONSIBLE OFFICIAL, AND THAT I HAVE PERSONALLY EXAMINED, AND AM FAMILIAR WITH, THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ITS ATTACHMENTS. BASED ON MY INQUIRY OF THOSE INDIVIDUALS WITH PRIMARY RESPONSIBILITY FOR OBTAINING THE INFORMATION, I CERTIFY THAT THE INFORMATION IS ON KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE OR INCOMPLETE INFORMATION, INCLUDING THE POSSIBILITY OF FINE OR IMPRISONMENT.



Authorized Signature

4-27-2024

Date

By:

Robert Fitzgerald

Type/Print Name of Siguatory

Ceo

Title of Siguatory

Section DD.3: Notes, Comments, and Explanations

Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

(502) 564-3999

DEP7007GG

Control Equipment

Additional Documentation

___ Complete Sections GG.1 through GG.12, as applicable

___ Attach manufacturer's specifications for each control device

___ Complete DEP7007AI

Source Name: Fitzgerald Trailers, LLC

KY EIS (AFS) #: 21-

Permit #:

Agency Interest (AI) ID: 3163

Date: 4/24/2024

Section GG.1: General Information - Control Equipment

Control Device ID #	Control Device Name	Cost	Manufacturer	Model Name/ Serial #	Date Installed	Inlet Gas Stream Data For All Control Devices					Inlet Gas Stream Data For Condensers, Adsorbers, Afterburners, Incinerators, Oxidizers Only			Equipment Operational Data For All Control Devices		
						Temperature (°F)	Flowrate (scfm @ 68°F)	Average Particle Diameter (μm)	Particle Density (lb/ft^3) or Specific Gravity	Gas Density (lb/ft^3)	Gas Moisture Content (%)	Gas Composition	Fan Type	Pressure Drop Range ($in. H_2O$)	Pollutants Collected/Controlled	Pollutant Removal (%)
1	Ceiling Fabric Filter	Unknown	Volz	V600G	TBD	Ambient	529.72 cfm	Unknown	Unknown	N/A	N/A	N/A	N/A	37 Pa	PM	90.00%
															PM_{10}	90.00%
2	Partial Enclosure (Bldg)	Unknown	Unknown	Unknown	Existing	Ambient	N/A	Unknown	Unknown	N/A	N/A	N/A	N/A	N/A	PM	50.00%
															PM_{10}	50.00%
															Chromium	50.00%
															Cobalt	50.00%
															Manganese	50.00%
															Nickel	50.00%

Section GG.6: Filter

Control Device ID #	Identify all Emission Units and Control Devices that Feed to Filter	Identify Type of Filter Unit: Baghouse, Cartridge Collector, or Other (specify)	Identify Type of Filtering Material: Fabric, Paper, Synthetic, or Other (specify)	Total Filter Area (ft^2)	Effective Air-to-Filter Ratio ($acfm/ft^2$)	Continuous Monitoring Instrumentation (e.g. COMS, BLDS, none)	Additional Materials Introduced into the Control System (e.g. lime, carbon)		Identify Cleaning Method: Shaker, Pulse Air, Reverse Air, Pulse Jet, or Other (specify)	Identify Gas Cooling Method: Ductwork, Heat Exchanger, Bleed-in Air, Water Spray, or Other (specify)	For Ductwork:		For Bleed-in Air:	For Water Spray:
							Material	Injection Rate (lb/hr)			Length (ft)	Diameter (ft)	Flowrate (scfm @ 68°F)	Flowrate (gal/min)
1	EP01-1 through EP01-3 Spray Booth Topcoat Mixture.	Ceilling Filters	Filtration Media Polyester	10.76	49.23	Unknown	N/A	N/A	Replace	N/A	N/A	N/A	N/A	N/A

Section GG.11: Other Control Equipment

Control Device ID #	Identify all Emission Units and Control Devices that Feed to Control Equipment	**Type of Control Equipment** (provide description and a diagram with dimensions)
2	IA01	Partial Bldg Enclosure - work inside building with open bay doors - facility has approximately 208,000 square feet for manufacturing area with basic building deminsions of 400' x 520' x 35'.

Section GG.12: Notes, Comments, and Explanations

Manufacture spec sheets provided for spary paint booth. Spec sheet provided for V600G Ceiling Filter and for NG heating unit.

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007V

Applicable Requirements and Compliance Activities

___ Section V.1: Emission and Operating L
___ Section V.2: Monitoring Requirements
___ Section V.3: Recordkeeping Requirem
___ Section V.4: Reporting Requirements
___ Section V.5: Testing Requirements
___ Section V.6: Notes, Comments, and Ex

Additional Documentation

___ Complete DEP7007AI

Source Name: Fitzgerald Trailers, LLC
KY EIS (AFS) #: 21-
Permit #:
Agency Interest (AI) ID: 3163
Date: 4/24/2024

Section V.1: Emission and Operating Limitation(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
EP01-1	Spray Booth Topcoat Mixture - Frankline Trailer White	401 KAR 59:010	PM PM10	Opacity	N/A	The permittee shall operate, maintain and replace paint filters in accordance with manufacturer's specifications. Opacity ≤ 20%	The facility shall install, operate and maintain spray booth filters according to manufacturers specs. Visual determinations of fugitive emissions and opacity.
		401 KAR 52:030	VOC	N/A	90 TPY	The permittee shall limit the operation of the spray coating process as needed to ensure the source wide VOC emission limitation is met.	Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance.
EP01-2	Spray Booth Topcoat Mixture - Hardener	401 KAR 59:010	PM PM_{10}	Opacity	N/A	The permittee shall operate, maintain and replace paint filters in accordance with manufacture's specifications. Opacity < 20%	The facility shall install, operate and maintain spray booth filters according to manufacturers specs. Visual determinations of fugitive emissions and opacity.
		401 KAR 52:030	VOC	N/A	90 TPY	The permittee shall limit the operation of the spray coating process as needed to ensure the source wide VOC emission limitation is met.	Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance.

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
EP01-3	Spray Booth Topcoate Mixture - Air Dry Additive	401 KAR 59:010	PM PM_{10}	Opacity	N/A	The permittee shall operate, maintain and replace paint filters in accordance with manufacture's specifications. Opacity < 20%	The facility shall install, operate and maintain spray booth filters according to manufacturers specs. Visual determinations of fugitive emissions and opacity.
		401 KAR 52:030	VOC	N/A	90 TPY	The permittee shall limit the operation of the spray coating process as needed to ensure the source wide VOC emission limitation is met.	Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance.
EP01-4	Spray Booth - Heater	401 KAR 59:010	PM PM_{10}	Opacity	N/A	The permittee shall operate, maintain and replace paint filters in accordance with manufacture's specifications. Opacity < 20%	The facility shall install, operate and maintain spray booth filters according to manufacturers specs. Visual determinations of fugitive emissions and opacity.
		401 KAR 52:030	CO Nox SO_2 VOC Lead TOC CO_2 N_2O CH_4		90 TPY	The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.	The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.
		401 KAR 63:020	Formaldehyde Benzene Naphthalene Toluene			The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.	The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.
EP02	Spray Gun Cleanout - Solvent	401 KAR 52:030	VOC		90 TPY	The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.	The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.
		401 KAR 63:020	Toluene			The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.	The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
EP03	Hand Applied Materials - Metal Degreaser	401 KAR 52:030	VOC		90 TPY	The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.	The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.
		401 KAR 63:020	Xylene Ethylbenzene Toluene			The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.	The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.
IA01	MIG Welding (2 Units)	401 KAR 59:010	PM PM_{10}			The permittee shall operate, maintain and replace paint filters in accordance with manufacture's specifications. Opacity < 20%	The facility shall install, operate and maintain spray booth filters according to manufacturers specs. Visual determinations of fugitive emissions and opacity.
		401 KAR 63:020	Chromium Cobalt Manganese Nickel			The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.	The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.

Section V.2: Monitoring Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Monitored	Description of Monitoring
EP01-1	Spray Booth Topcoat Mixture - Frankline Trailer White	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	Visual determination of fugitive emissions and opacity
		VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
EP01-2	Spray Booth Topcoat Mixture - Hardener	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	Visual determination of fugitive emissions and opacity
		VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
EP01-3	Spray Booth Topcoate Mixture - Air Dry Additive	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	Visual determination of fugitive emissions and opacity
		VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
EP01-4	Spray Booth - Heater	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	Visual determination of fugitive emissions and opacity
		CO Nox SO2 VOC Lead TOC CO2 N2O CH4	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
		Formaldehyde Benzene Naphthalene Toluene	401 KAR 63:020	Material Usage	Monthly record or rolling total of materials used
EP02	Spray Gun Cleanout - Solvent	VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
		Toluene	401 KAR 63:020	Material Usage	Monthly record or rolling total of materials used
EP03	Hand Applied Materials - Metal Degreaser	VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
		Xylene Ethylbenzene Toluene	401 KAR 63:020	Material Usage	Monthly record or rolling total of materials used
IA01	MIG Welding (2 Units)	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	
		Chromium Cobalt Manganese Nickel	401 KAR 63:020	Material Usage	Monthly record or rolling total of materials used

Section V.3: Recordkeeping Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Recorded	Description of Recordkeeping
EP01-1	Spray Booth Topcoat Mixture - Frankline Trailer White	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	Visual determination of fugitive emissions and opacity
		VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
EP01-2	Spray Booth Topcoat Mixture - Hardener	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	Visual determination of fugitive emissions and opacity
		VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
EP01-3	Spray Booth Topcoate Mixture - Air Dry Additive	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	Visual determination of fugitive emissions and opacity
		VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of generator usage
EP01-4	Spray Booth - Heater	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	Visual determination of fugitive emissions and opacity
		CO Nox SO2 VOC Lead TOC CO2 N2O CH4	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
		Formaldehyde Benzene Naphthalene Toluene	401 KAR 63:020	Material Usage	Monthly record or rolling total of materials used
EP02	Spray Gun Cleanout - Solvent	VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
		Toluene	401 KAR 63:020	Material Usage	Monthly record or rolling total of materials used
EP03	Hand Applied Materials - Metal Degreaser	VOC	401 KAR 52:030	Material Usage	Monthly record or rolling total of materials used
		Xylene Ethylbenzene Toluene	401 KAR 63:020	Material Usage	Monthly record or rolling total of materials used
IA01	MIG Welding (2 Units)	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	Visual determination of fugitive emissions and opacity
		Chromium Cobalt Manganese Nickel	401 KAR 63:020	Material Usage	Monthly record or rolling total of materials used

Section V.4: Reporting Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Reported	Description of Reporting
EP01-1	Spray Booth Topcoat Mixture - Frankline Trailer White	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	ACC/SAMR
		VOC	401 KAR 52:030	Material Usage	ACC/SAMR
EP01-2	Spray Booth Topcoat Mixture - Hardener	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	ACC/SAMR
		VOC	401 KAR 52:030	Material Usage	ACC/SAMR
EP01-3	Spray Booth Topcoate Mixture - Air Dry Additive	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	ACC/SAMR
		VOC	401 KAR 52:030	Material Usage	ACC/SAMR
EP01-4	Spray Booth - Heater	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	ACC/SAMR
		CO Nox SO2 VOC Lead TOC CO2 N2O CH4	401 KAR 52:030	Material Usage	ACC/SAMR
		Formaldehyde Benzene Naphthalene Toluene	401 KAR 63:020	Material Usage	ACC/SAMR
EP02	Spray Gun Cleanout - Solvent	VOC	401 KAR 52:030	Material Usage	ACC/SAMR
		Toluene	401 KAR 63:020	Material Usage	ACC/SAMR
EP03	Hand Applied Materials - Metal Degreaser	VOC	401 KAR 52:030	Material Usage	ACC/SAMR
		Xylene Ethylbenzene Toluene	401 KAR 63:020	Material Usage	ACC/SAMR
IA01	MIG Welding (2 Units)	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	ACC/SAMR
		Chromium Cobalt Manganese Nickel	401 KAR 63:020	Material Usage	ACC/SAMR

Section V.5: Testing Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Tested	Description of Testing
EP01-1	Spray Booth Topcoat Mixture - Frankline Trailer White	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	As Required by Cabinet
		VOC	401 KAR 52:030	Material Usage	As Required by Cabinet
EP01-2	Spray Booth Topcoat Mixture - Hardener	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	As Required by Cabinet
		VOC	401 KAR 52:030	Material Usage	As Required by Cabinet
EP01-3	Spray Booth Topcoate Mixture - Air Dry Additive	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	As Required by Cabinet
		VOC	401 KAR 52:030	Material Usage	As Required by Cabinet
EP01-4	Spray Booth - Heater	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	As Required by Cabinet
		CO Nox SO2 VOC Lead TOC CO2 N2O CH4	401 KAR 52:030	Material Usage	As Required by Cabinet
		Formaldehyde Benzene Naphthalene Toluene	401 KAR 63:020	Material Usage	As Required by Cabinet
EP02	Spray Gun Cleanout - Solvent	VOC	401 KAR 52:030	Material Usage	As Required by Cabinet
		Toluene	401 KAR 63:020	Material Usage	As Required by Cabinet
EP03	Hand Applied Materials - Metal Degreaser	VOC	401 KAR 52:030	Material Usage	As Required by Cabinet
		Xylene Ethylbenzene Toluene	401 KAR 63:020	Material Usage	As Required by Cabinet
IA01	MIG Welding (2 Units)	PM PM10	401 KAR 59:010	Opacity & Filter Maintenance	As Required by Cabinet
		Chromium Cobalt Manganese	401 KAR 63:020	Material Usage	As Required by Cabinet

Section V.6: Notes, Comments, and Explanations

Name: Fitzgerald Trailers, LLC — **AI # 3163**

Identification	Description	Material	Throughput	Units	Hours	Pollutant	Emission Factors EF	Units	Overall	Uncontrolled lb/hr	Uncontrolled TPY	Controlled lb/hr	Controlled TPY
Name	**Spray Booth Topcoat Mixture (Franklin Trailer White)**												
EIS Point	EP01-1	Primer	24.83	gal/hr	5840	PM	7.04E-01	lb/gal	90.00%	17.48	51.03	1.75	5.10
SCC	4-02-001-10					PM_{10}	7.04E-01	lb/gal	90.00%	17.48	51.03	1.75	5.10
Reg	401 KAR 59:010, 401 KAR 52:030		2.00	liter/min		VOC	4.00	lb/gal	0.00%	99.34	290.07	99.34	290.07
Stack #	1		0.53	gal/min									
Height	40 ft.		31.70	gal/hr.									
Diameter	2.5 ft.												
Flowrate	8850 acfm												
Temp	70 °F	Guns in use	1.00										
Date	Existing												
Control	Fabric Filter, 86% TE (PM)												
EF Reference	SDS	Mixture %	78.33%										
Note	Throughput & TE% identified through manufacturer specification Hours per year is based on 1 hour for painting and 0.5 hour for drying.												
Name	**Spray Booth Topcoat Mixture (Hardener)**												
EIS Point	EP01-2	Hardener	5.28	gal/hr	5840	PM	1.16	lb/gal	90.00%	6.14	17.92	6.14E-01	1.79
SCC	4-02-001-10					PM_{10}	1.16	lb/gal	90.00%	6.14	17.92	6.14E-01	1.79
Reg	401 KAR 59:010, 401 KAR 52:030		2.00	liter/min		VOC	9.73E-01	lb/gal	0.00%	5.14	15.02	5.14	15.02
Stack #	1		0.53	gal/min									
Height	40 ft.		31.70	gal/hr.									
Diameter	2.5 ft.												
Flowrate	8850 acfm												
Temp	70 °F	Guns in use	1.00										
Date	Existing												
Control	Fabric Filter, 86% TE (PM)												
EF Reference	SDS	Mixture %	16.67%										
Note	Throughput & TE% identified through manufacturer specification Hours per year is based on 1 hour for painting and 0.5 hour for drying.												
Name	**Spray Booth Topcoat Mixture (Air Dry Additive)**												
EIS Point	EP01-3	Hardener	1.59	gal/hr	5840	PM	3.41E-01	lb/gal	90.00%	5.40E-01	1.58	5.40E-02	1.58E-01
SCC	4-02-001-10					PM_{10}	3.41E-01	lb/gal	90.00%	5.40E-01	1.58	5.40E-02	1.58E-01
Reg	401 KAR 59:010, 401 KAR 52:030		2.00	liter/min		VOC	5.70	lb/gal	0.00%	9.04	26.38	9.04	26.38
Stack #	1		0.53	gal/min									
Height	40 ft.		31.70	gal/hr.									
Diameter	2.5 ft.												
Flowrate	8850 acfm												
Temp	70 °F	Guns in use	1.00										
Date	Existing												
Control	Fabric Filter, 86% TE (PM)												
EF Reference	SDS	Mixture %	5.00%										
Note	Throughput & TE% identified through manufacturer specification Hours per year is based on 1 hour for painting and 0.5 hour for drying.												
Name	**Spray Booth - Heater**												
EIS Point	EP01-4	NG Burned	1.18E-03	MMScf/hr	2920	CO	84.00	lb/MMScf	0.00%	9.88E-02	1.44E-01	9.88E-02	1.44E-01
SCC	1-02-006-03					NOx	100.00	lb/MMScf	0.00%	1.18E-01	1.72E-01	1.18E-01	1.72E-01
Reg	401 KAR 59:010; 401 KAR 63:020					PM	7.60	lb/MMScf	0.00%	8.94E-03	1.31E-02	8.94E-03	1.31E-02
Stack #	1					PM_{10}	5.70	lb/MMScf	0.00%	6.71E-03	9.79E-03	6.71E-03	9.79E-03
Height	40 ft.					SO_2	6.00E-01	lb/MMScf	0.00%	7.06E-04	1.03E-03	7.06E-04	1.03E-03
Diameter	2.5 ft.	Rated heat input	1.20	MMBtu/hr		VOC	5.50	lb/MMScf	0.00%	6.47E-03	9.45E-03	6.47E-03	9.45E-03
Flowrate	8850 acfm	Conversion factor	1020.00	Btu/Scf		Lead	5.00E-04	lb/MMScf	0.00%	5.88E-07	8.59E-07	5.88E-07	8.59E-07
Temp	70 °F					TOC	11.00	lb/MMScf	0.00%	1.29E-02	1.89E-02	1.29E-02	1.89E-02
Date	Existing					CO_2	120000.00	lb/MMScf	0.00%	141.18	206.12	141.18	206.12
Control	None Known					N_2O	2.20	lb/MMScf	0.00%	2.59E-03	3.78E-03	2.59E-03	3.78E-03
EF Reference	AP-42 Chapter 1.4					CH_4	2.30	lb/MMScf	0.00%	2.71E-03	3.95E-03	2.71E-03	3.95E-03
Notes	Hours per year is based on 1 hour for painting and 0.5 hour for drying.					Formaldehyde	7.50E-02	lb/MMScf	0.00%	8.82E-05	1.29E-04	8.82E-05	1.29E-04
						Benzene	2.10E-03	lb/MMScf	0.00%	2.47E-06	3.61E-06	2.47E-06	3.61E-06
						Naphthalene	6.10E-04	lb/MMScf	0.00%	7.18E-07	1.05E-06	7.18E-07	1.05E-06
						Toluene	3.40E-03	lb/MMScf	0.00%	4.00E-06	5.84E-06	4.00E-06	5.84E-06
Name	**Spray Gun Cleanout (Solvent Usage)**												
EIS Point	EP02	Solvent Usage	1.67E-01	gal/hr	8760	VOC	6.92	lb/gal	0.00%	1.15	5.05	1.15	5.05
SCC	4-02-009-22					Toluene	3.11	lb/gal	0.00%	5.19E-01	2.27	5.19E-01	2.27
Reg	401 KAR 52:030, 401 KAR 63:020												
Stack #	N/A												
Height	N/A		7.00	gal/week									
Diameter	N/A		42.00	hr/week									
Flowrate	N/A												
Temp	N/A												
Date	6/1/2024												
Control	N/A												
EF Reference	SDS												
Note	Facility indicated that they would use approximately 7.00 gallons per week.												
Name	**Hand Applied Materials - (Metal Degreaser)**												
EIS Point	EP03	Degreaser Usage	1.90E-01	gal/hr	8760	VOC	7.06	lb/gal	0.00%	1.34	5.89	1.34	5.89
SCC	4-02-025-02	Applied by hand				Xylene	5.31	lb/gal	0.00%	1.01	4.43	1.01	4.43
Reg	401 KAR 52:030, 401 KAR 63:020					Ethylbenzene	1.41	lb/gal	0.00%	2.69E-01	1.18	2.69E-01	1.18
Stack #	N/A					Toluene	8.12E-02	lb/gal	0.00%	1.55E-02	6.77E-02	1.55E-02	6.77E-02
Height	N/A	Actual Usage	2.00	gal/day									
Diameter	N/A		10.50	hr/day									
Flowrate	N/A												
Temp	N/A												
Date	6/1/2024												
Control	None Known - Applied by hand assume 100% TE, no PM emissions assumed												
EF Reference	SDS												
Notes	Facility indicated that they would use approximately 2.00 gallons per day.												
Name	**MIG Welding (2 units)**												
EIS Point	IA01	Welding Wire Consumed	7.42E-03	lb/lb_{1000}	8760	PM	5.20	lb/lb_{1000}	50.00%	3.86E-02	1.69E-01	1.93E-02	8.45E-02
SCC	3-09-052-54					PM_{10}	5.20	lb/lb_{1000}	50.00%	3.86E-02	1.69E-01	1.93E-02	8.45E-02
Reg	401 KAR 59:010; 40 KAR 63:020					Chromium	1.00E-02	lb/lb_{1000}	50.00%	7.42E-05	3.25E-04	3.71E-05	1.62E-04
Stack #	N/A	Max Total Wire Consumed	16200.00	lbs/yr		Cobalt	1.00E-02	lb/lb_{1000}	50.00%	7.42E-05	3.25E-04	3.71E-05	1.62E-04
Height	Approximate Height of bldg = 35 ft.		2184.00	hr/yr		Manganese	3.18	lb/lb_{1000}	50.00%	2.36E-02	1.03E-01	1.18E-02	5.17E-02
Diameter	N/A		7.42	lb/hr		Nickel	1.00E-02	lb/lb_{1000}	50.00%	7.42E-05	3.25E-04	3.71E-05	1.62E-04
Flowrate	N/A												
Temp	Ambient		42	hrs/week									
Date	6/1/2024		2184.00	hrs/year									
Control	Enclosure - Assume 50% control for particulates												
EF Reference	PM: AP-42 Chapter 12.19												
Notes:	E70s Welding Wire												

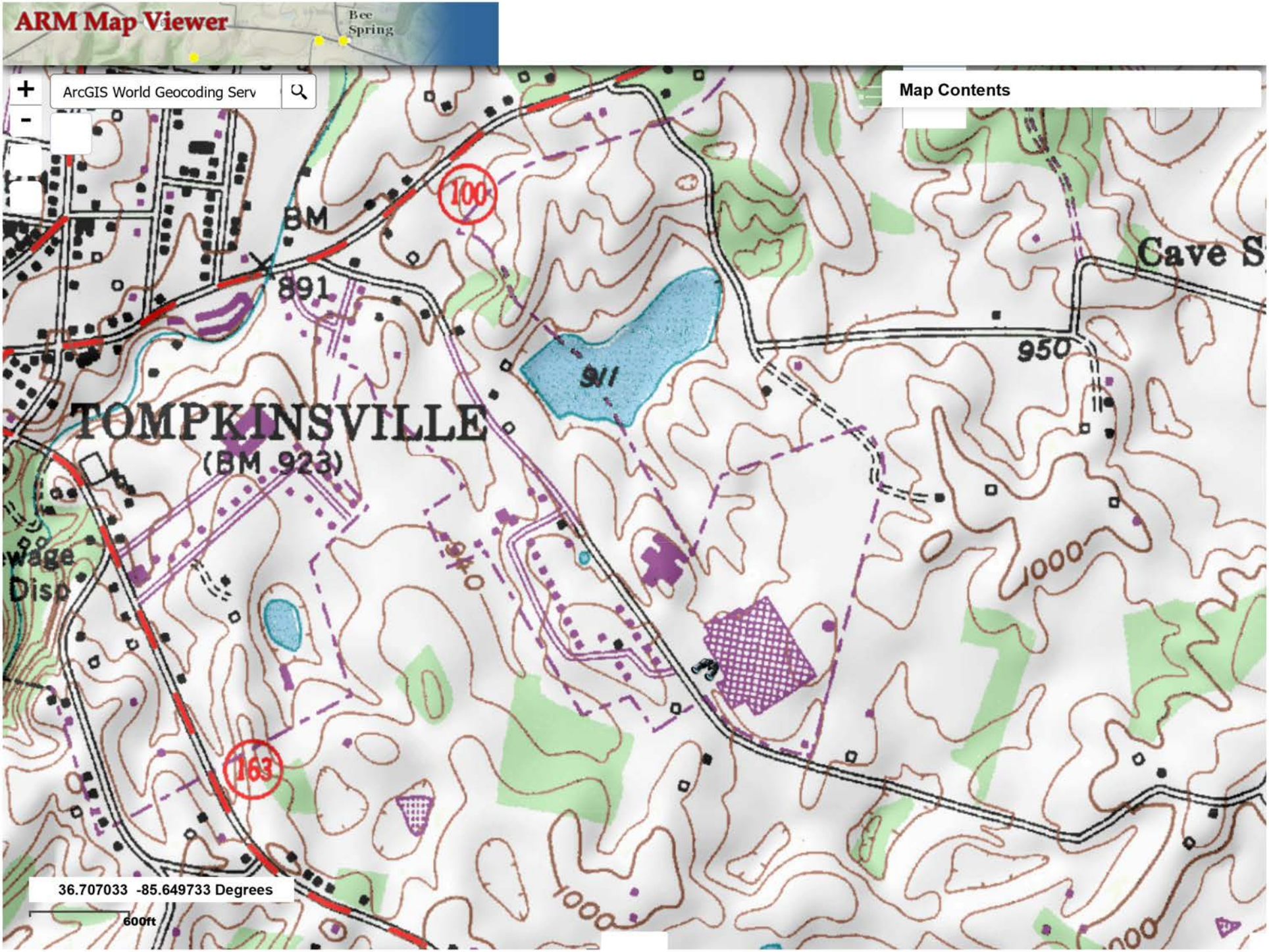
	Coating Name	Manufacturer	Density (lb/gal)	VOC lb/gal	VOC%	PM%	PM lb/gal	Toluene		Cumene	
								%	lb/gal	%	lb/gal
Topcoat Mixture	LV151 Direct To Metal Topcoat - Fitzgerald Trailer White	AkzoNobel	8.98	4.00	44.03%	55.97%	5.03				
Topcoat Mixture	LV151 Direct To Metal Topcoat - Hardener	Sikkens	9.27	9.73E-01	10.50%	89.50%	8.30				
Topcoat Mixture	LV151 Direct To Metal Topcoat - Air Dry Additive	AkzoNobel	8.16	5.70	70.17%	29.83%	2.43				
Solvent	Spray Gun Cleaning Solvent	AkzoNobel	6.92	6.92	100.00%	0.00%	0	45.00%	3.11		

	Coating Name	Manufacturer	Density (lb/gal)	VOC lb/gal	VOC%	PM%	PM lb/gal	Xylene %	lb/gal	Ethylbenzene %	lb/gal	Toluene %	lb/gal
Metal Degreaser	OTO Quick Degreaser	AkzoNobel	7.06	7.06	100.00%	0.00%	0.00	75.15%	5.31	20.00%	1.41	1.15%	8.12E-02

Facility-wide Emissions

Pollutant	Uncontrolled TPY	Controlled TPY
PM	70.71	7.15
PM_{10}	70.71	7.15
VOC	342.42	342.42
SO_2	1.03E-03	1.03E-03
NO_X	1.72E-01	1.72E-01
Lead	8.59E-07	8.59E-07
CO	1.44E-01	1.44E-01
N_2O	3.78E-03	3.78E-03
CH_4	3.95E-03	3.95E-03
Formaldehyde	1.29E-04	1.29E-04
Benzene	3.61E-06	3.61E-06
Toluene	2.34	2.34
Ethylbenzene	1.18	1.18
Xylene	4.43	4.43
Naphthalene	1.05E-06	1.05E-06
Total Haps	7.95	7.95


Monroe County
Water District
All Smiles Dental Care
Crystal Hagan, DMD
667 Capp Harlan Rd
Monroe Cnty Medical Ctr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163
36.707033 -85.649733 Degrees
600ft


Bay Door
Bay Door
Paint Booth Stack
Google Earth
Tour Guide
1997
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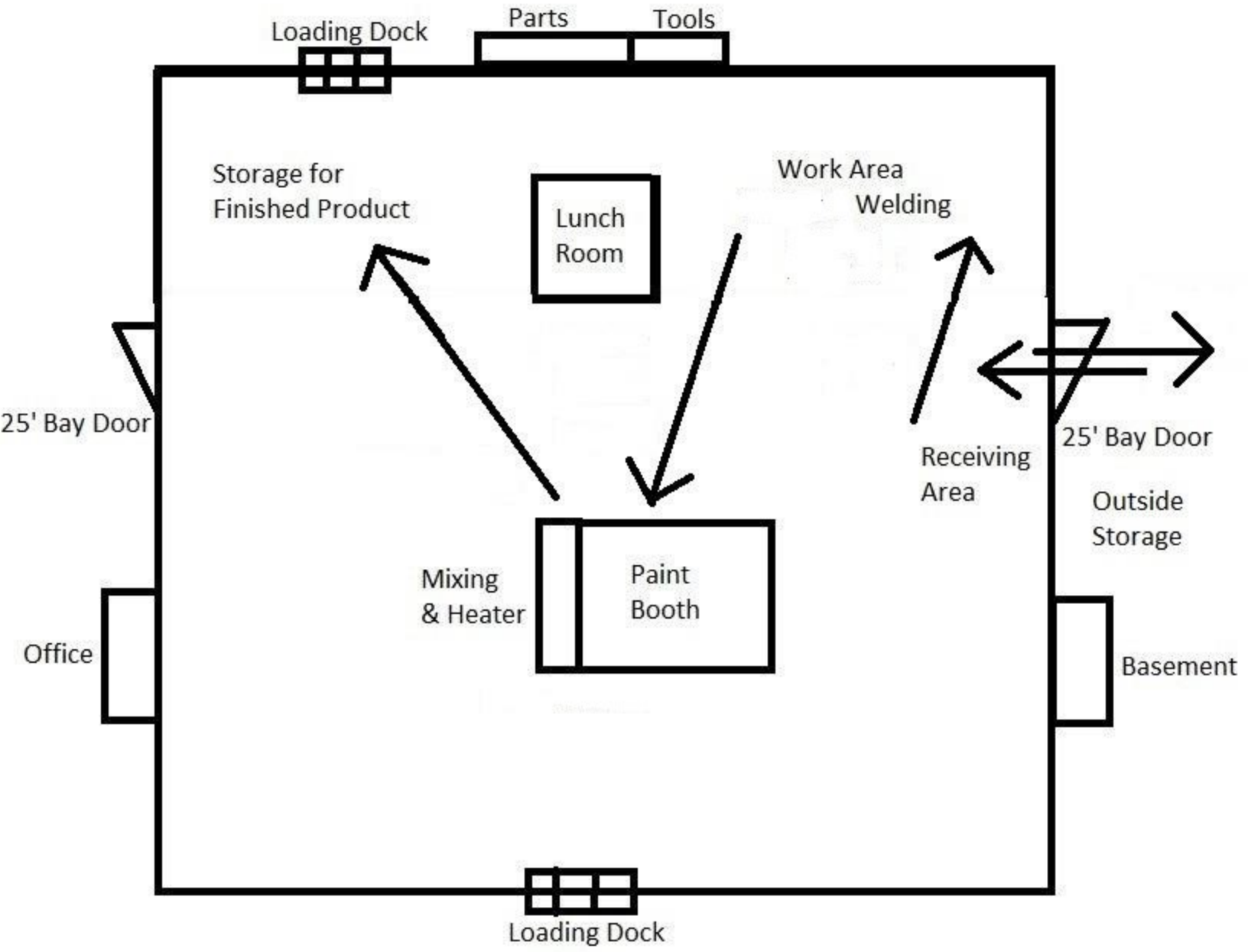

Loading Dock
Parts
Tools
Storage for
Finished Product
Lunch
Room
Work Area
Welding
25' Bay Door
Receiving
Area
25' Bay Door
Outside
Storage
Mixing
& Heater
Paint
Booth
Office
Basement
Loading Dock

Instructions–Parts List

ALUMINUM AND STAINLESS STEEL, 1:1 RATIO

Triton® 1:1 Spray Packages

309304R

EN

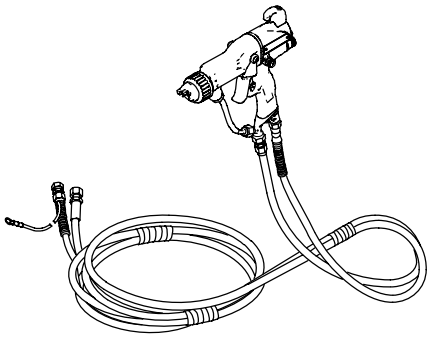
100 psi (0.7 MPa, 7 bar) Maximum Air Inlet Pressure

100 psi (0.7 MPa, 7 bar) Maximum Fluid Working Pressure

Pail Mount Packages
Stand Mount Packages
Cart Mount Packages
Wall Mount Packages

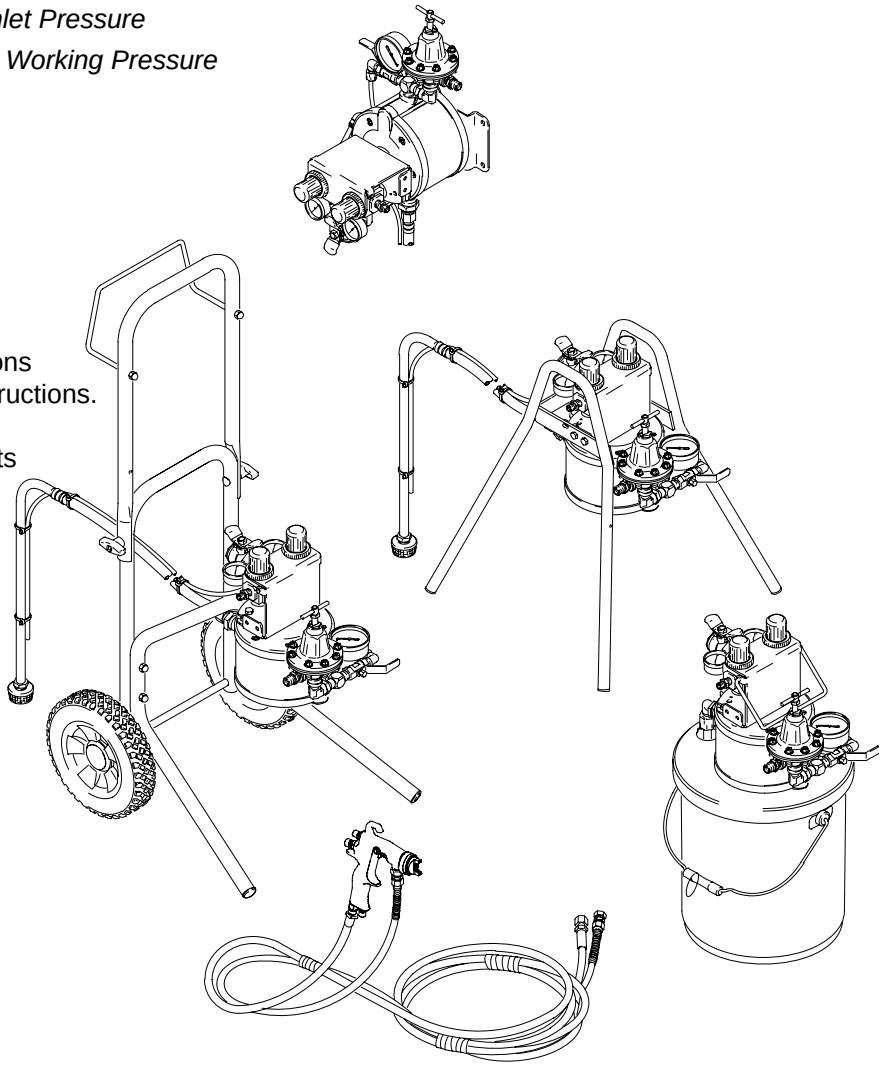
Important Safety Instructions
Read all warnings and instructions in this manual. Save these instructions.

See page 2 for Table of Contents and page 3 for Models.



TI1587b

Electrostatic packages



TI1004b

Air Spray packages and HVLP packages

PROVEN QUALITY. LEADING TECHNOLOGY.

Ex h IIB T6 Gb

Table of Contents

Models

Spray Package Description	Pail Mount, Series	Stand Mount, Series	Cart Mount, Series	Wall Mount, Series
Aluminum Pump, No Gun	233466, A	233473, A	233480, A	233487, A
Stainless Steel Pump, No Gun	233467, A	233474, A	233481, A	233488, A
Aluminum Pump, AirPro Conventional Gun	233468, C	233475, C	233482, C	233489, C
Stainless Steel Pump, AirPro Conventional Gun	233469, C	233476, C	233483, C	233490, C
Aluminum Pump, AirPro HVLP Spray Gun	233470, C	233477, C	233484, C	233491, C
Stainless Steel Pump, AirPro HVLP Spray Gun	233471, C	233478, C	233485, C	233492, C
Aluminum Pump, AirPro Compliant Spray Gun	234911, B	234913, B	234915, B	234917, B
Stainless Steel Pump, AirPro Compliant Spray Gun	234912, B	234914, B	234916, B	234918, B
Aluminum Pump, Pro Xp 40 Electrostatic Spray Gun	233741, C	233743, B	233746, C	233748, B
Aluminum Pump, Pro Xp 60 Electrostatic Spray Gun	233742, C	233744, B	233747, C	233749, B
Stainless Steel Pump, AirPro HVLP Waterborne Gun	N/A	N/A	289632, A	289622, A
Stainless Steel Pump, AirPro Compliant Waterborne Gun	N/A	N/A	289633, A	289623, A
Stainless Steel Pump, AirPro Conventional Waterborne Gun	N/A	N/A	289634, A	289624, A
Stainless Steel Pump, AirPro HVLP Stain Spray Gun	289642, A	N/A	289635, A	289625, A
Stainless Steel Pump, AirPro Compliant Stain Spray Gun	289643, A	N/A	289636, A	289626, A
Stainless Steel Pump, AirPro Conventional Stain Spray Gun	289644, A	N/A	289637, A	289627, A
Aluminum Pump, AirPro HVLP Stain Spray Gun	289645, A	N/A	289638, A	289628, A
Aluminum Pump, AirPro Compliant Stain Spray Gun	289646, A	N/A	289639, A	289629, A
Aluminum Pump, AirPro Conventional Stain Spray Gun	289647, A	N/A	289640, A	289630, A
Aluminum Pump, Pro Xp 85 Electrostatic Spray Gun	289648, C	289649, B	289641, C	289631, B

Symbols

Warning Symbol

⚠ WARNING

This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

Caution Symbol

⚠ CAUTION

This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the corresponding instructions.

⚠ WARNING

PRESSURIZED FLUID HAZARD

Spray from the gun, hose leaks, or ruptured components can splash fluid in the eyes or on the skin and cause serious injury.

- Do not stop or deflect fluid leaks with your hand, glove, or rag.
- Follow the **Pressure Relief Procedure** on page 10 before cleaning, checking, or servicing the equipment.
- Tighten all fluid connections before each use.
- Check the hoses, tubes, and couplings daily. Replace parts immediately if worn, damaged, or loose. Permanently coupled hoses cannot be repaired.

FIRE AND EXPLOSION HAZARD

Improper grounding, poor air ventilation, open flames, or sparks can cause a hazardous condition and result in fire or explosion and serious injury.

- Ground the equipment, the object being sprayed, and all other electrically conductive objects in the spray area. See **Grounding** on page 10.
- Electrostatic guns require special grounding procedures. If your package includes an electrostatic spray gun, read and follow all grounding instructions in the gun manual 3A2494.
- If there is any static sparking while using the equipment, **stop spraying immediately**. Identify and correct the problem.
- Provide fresh air ventilation to avoid the buildup of flammable vapors from the solvent or the fluid being sprayed.
- Do not smoke in the spray area.
- Extinguish all open flames or pilot lights in the spray area.
- Do not turn on or off any light switch in the spray area.
- Electrically disconnect all equipment in the spray area.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Do not operate a gasoline engine in the spray area.

⚠ WARNING

EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in a serious injury.

- This equipment is for professional use only.
- Read all the instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are uncertain about usage, call your Graco distributor.
- Do not alter or modify this equipment. Use only genuine Graco parts and accessories.
- Check the equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated system component. This package has a **100 psi (0.7 MPa, 7 bar) maximum working pressure.**
- Use fluids that are compatible with the equipment wetted parts. See the **Technical Data** section of all the equipment manuals. Read the fluid manufacturer's warnings.
- *Aluminum pumps only:* Never use 1.1.1–trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use could result in a chemical reaction, with the possibility of explosion.
- Route the hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 180°F (82°C) or below –40°F (–40°C).
- Do not use the hoses to pull equipment.
- Wear hearing protection when operating this equipment.
- Comply with all applicable local, state, and national fire, electrical, and other safety regulations.

TOXIC FLUID HAZARD

Hazardous fluids or toxic fumes can cause a serious injury or death if splashed in the eyes or on the skin, swallowed, or inhaled.

- Know the specific hazards of the fluid you are using. Read the fluid manufacturer's warnings.
- Store hazardous fluid in an approved container. Dispose of the hazardous fluid according to all local, state, and national guidelines.
- Wear appropriate protective clothing, gloves, eyewear, and respirator.
- If the pump diaphragm fails, hazardous fluid may be exhausted along with the air.

Component Identification

Stand Mount HVLP Spray Package Shown

KEY

- A TRITON 1:1 Pump
- B Bleed-type master air valve
- C Air supply line (not supplied)
- D Air line filter (not supplied)
- E Air line shutoff valve (not supplied)
- F Pump air regulator
- G Gun air regulator
- H Fluid pressure regulator (HVLP and electrostatic packages only)
- J Drain/circulation valve
- K Drain tube
- L Suction tube
- M Gun fluid hose connection
- N Gun air hose connection
- P Gun fluid hose
- R Gun air hose
- S Spray gun
- T Fluid pressure gauge (HVLP and electrostatic packages only)
- U Pump air pressure gauge
- V Gun air pressure gauge
- W Agitator (not supplied)
- Y Pump ground wire

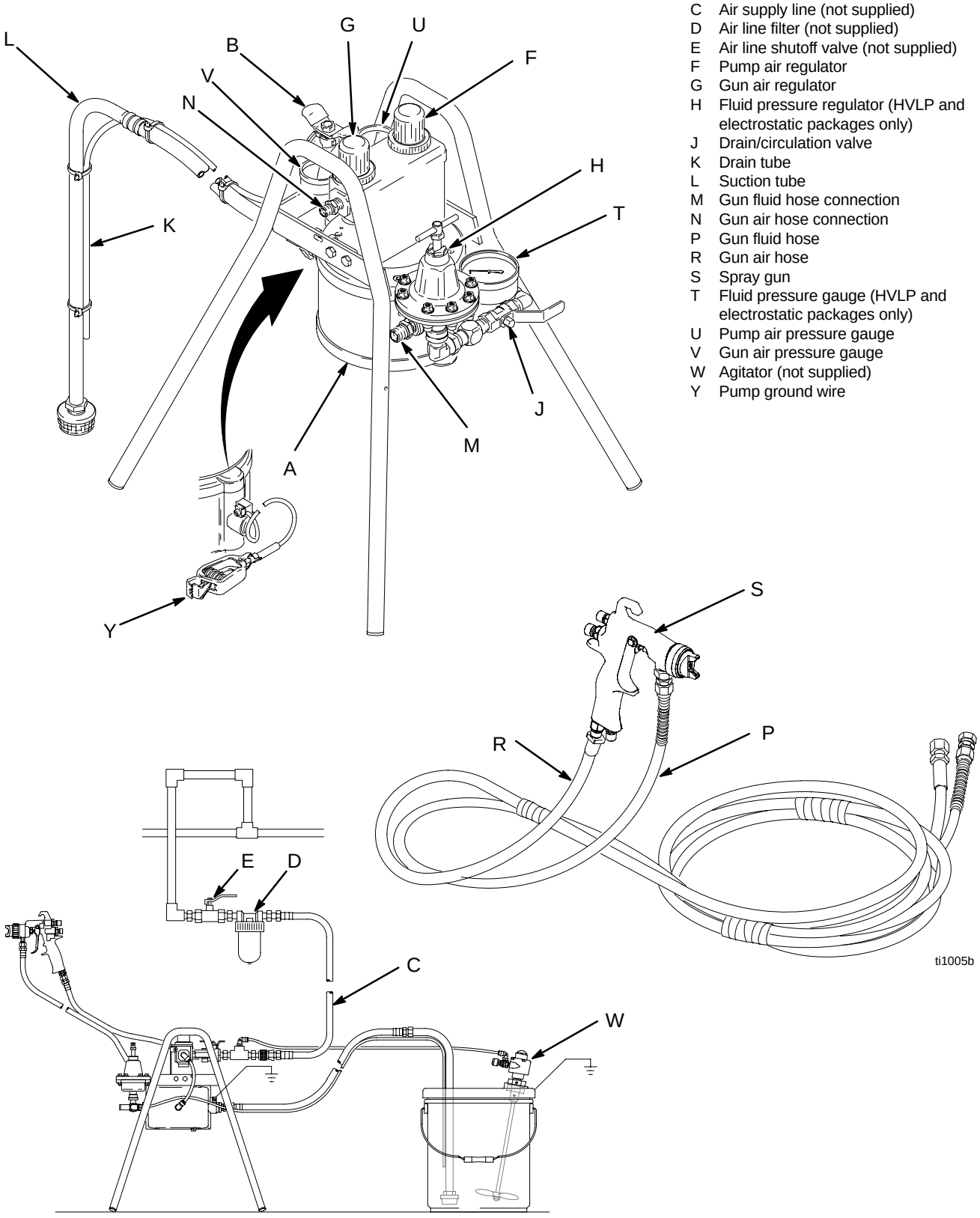


Fig. 1

Installation

⚠ CAUTION

Use a stainless steel package to spray waterborne, acid-catalyzed, or 2-component materials. Use of aluminum packages with these materials is not recommended. See the wetted parts in the **Technical Data** section of each component manual, and your fluid and solvent manufacturer's compatibility information.

⚠ WARNING

TOXIC FLUID HAZARD
Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, or swallowed.

- Read **TOXIC FLUID HAZARD** on page 5.
- Use fluids and solvents that are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.

General Information

- Always use Genuine Graco Parts and Accessories, available from your Graco distributor. If you supply your own accessories, be sure they are adequately sized and pressure rated for your system.
- Reference numbers and letters in parentheses refer to the callouts in the Figs. and the parts lists starting on page 12.

Preparing the Site

- Ensure that you have an adequate compressed air supply for the pump and gun. Refer to the separate pump and gun manuals for air consumption data.
- Clear obstacles and debris that could cause an unsafe operating environment.
- Have a grounded, metal pail available for use when flushing the spray package.
- Bring an air supply line (C) from the main air supply to the pump location. Install an accessory air filter (D) on the compressed air line to filter dirt and moisture from the air supply. Install a shutoff valve (E) to isolate the filter for cleaning.
- When the bleed-type master air valve (B) is closed and the pump air regulator (F) and gun air regulator (G) are opened, it relieves all air pressure to the system components.
- Ventilate the spray booth.

⚠ WARNING

To prevent hazardous concentrations of toxic and/or flammable vapors, spray only in a properly ventilated spray booth. Never operate the spray gun unless ventilation fans are operating.

Check and follow all of the national, state, and local codes regarding air exhaust velocity requirements.

Installation

Pump Outlet Fluid Filter Accessories

To install a fluid filter on the pump outlet, order a filter (AA), swivel (BB), and nipple (CC). Refer to Table 1 for the part numbers you must order for an aluminum or a stainless steel package.

Refer to Fig. 2. Install the fluid filter between the pump fluid outlet and the gun fluid hose connection. If a fluid regulator (H) is present, it must be rotated so the gauge (T) will clear the filter.

Table 1: Installing a Fluid Filter

Fluid Filter (AA)	Swivel (BB)	Nipple (CC)
114361; nylon; 150 psi; 80 mesh; for aluminum or stainless steel packages	235207; 3/8 npt(m) x 3/8 npsm(f); sst	166863; 1/4 npt x 3/8 npt; sst
235677; aluminum; 3000 psi; 60 mesh; for aluminum packages	157705; 1/4 npt(m) x 3/8 npsm(f); cst	165198; 1/4 npt x 3/8 npt; cst
223160; sst; 5000 psi; 60 mesh; for stainless steel packages	235207; 3/8 npt(m) x 3/8 npsm(f); sst	166863; 1/4 npt x 3/8 npt; sst

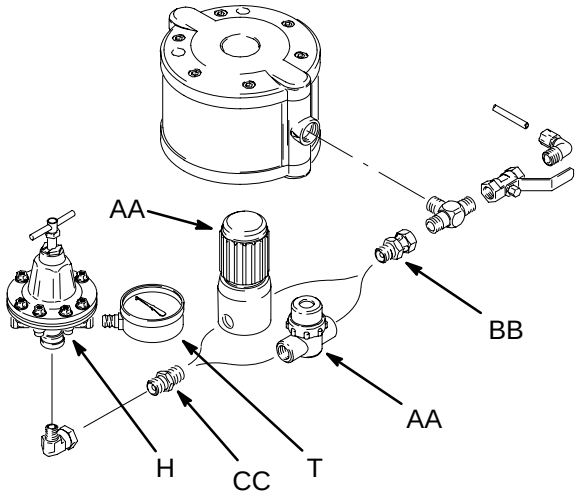


Fig. 2 ti1471a

Gun Inlet Filter

To install a filter between the hose and gun inlet, order Filter 915921, 100 mesh, 500 psi, sst, 3/8 npsm (m x f).

Agitator Kit 245081

Part No. 245081 Agitator Kit is available for the TRITON Sprayer Packages as an accessory. The kit must be ordered separately. Instructions are included.

Fluid Suction Line

- The pump fluid inlet is 3/4 npt(f). Screw the suction line (L) into the pump inlet snugly. Use a compatible liquid thread sealant on connections to prevent air from getting into the fluid line.
- Do not pressure feed this pump.
- See the **Technical Data** in the pump manual 309303 for maximum suction lift.

Preparing the Operator

Anybody who operates this system should be trained in the safe, efficient operation of all system components. At a minimum, all operators should thoroughly read the TRITON operation manual, 309305.

Related Manuals

309305	TRITON™ 1:1 Spray Package Operation
309303	TRITON™ 1:1 Pump
312414	AirPro Conventional, HVLP, and Compliant Gun
3A2494	Pro Xp Electrostatic Air Spray Guns
308325	Acetal Fluid Regulator
307212	Stainless Steel Fluid Regulator
309306	Agitator Kit

Installation

Wall Mount Packages

NOTE: Refer to Fig. 3 and to the Wall Mounting Template on page 21.

1. Ensure that the wall is strong enough to support the weight of the pump and accessories, fluid, hoses, and stress caused during pump operation.

2. Use the Wall Mounting Template on page 21 to set the position of the wall bracket. The top edge of the bracket should be 4 to 5 ft (1.2 to 1.5 m) above the floor. Verify that the dimensions are exact and the hole locations are level before drilling the holes.

NOTE: It is easier to mount the wall bracket (31) if the control bracket (4) and pump (1) are removed. Disconnect the air tube (12) from the elbow (11), then loosen the two screws (3) and lift the control bracket (4) off the screws. To remove the pump (1), remove the screws (3) entirely.

3. Using the template, drill four 0.38 in. (9.6 mm) diameter holes in the wall. Attach the bracket with anchors and screws that are long enough to keep the bracket from vibrating during operation. Check that the bracket is level.

Suction Kit Accessories

Suction kits are available for the wall mount packages, as an accessory. The kits must be ordered separately. Refer to Table 2 for information.

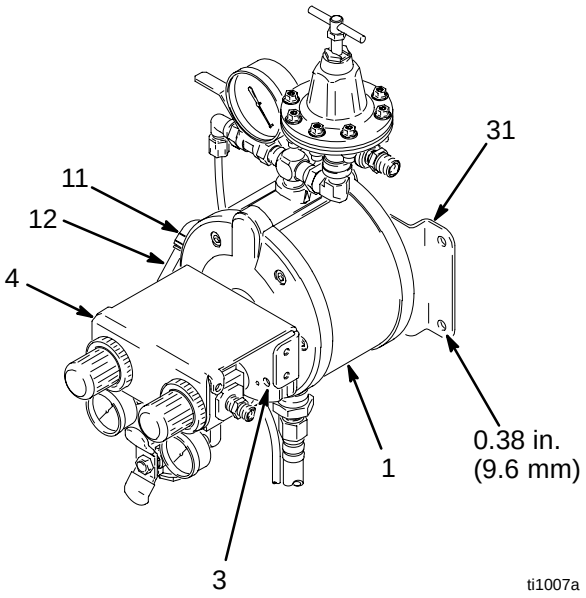


Fig. 3

Table 2: Wall Mount Suction Kits

Part No.	Suction Kit Description	Hose Length	Tube Length
245082	Aluminum, 5 gal pail size, with strainer	4 ft (1.2 m)	17 in. (0.43 m)
245083	Stainless Steel, 5 gal pail size, with strainer	4 ft (1.2 m)	17 in. (0.43 m)
245084	Aluminum, 55 gal drum size, with bung adapter	6 ft (1.8 m)	38 in. (0.96 m)
245085	Stainless Steel, 55 gal drum size, with bung adapter	6 ft (1.8 m)	38 in. (0.96 m)

Installation

Grounding

⚠ WARNING

To reduce the risk of static sparking, the entire system must be grounded. Check your local electrical code for detailed grounding instructions for your area and type of equipment. Ground all of this equipment. Also read **FIRE AND EXPLOSION HAZARD** on page 4.

- *Spray package:* One end of the ground wire is already connected to the pump. Connect the clamp end of the ground wire to a true earth ground.
- *Packages with Pro Xp electrostatic guns:* Make sure you read all of the grounding instructions and warnings in your gun instruction manual 3A2494.
- *Air compressor:* Follow the manufacturer's recommendations.
- *Object being sprayed:* Follow the local code.
- *Fluid supply container*: Follow the local code.
- *All solvent pails used when flushing:* Follow the local code. Use only metal pails, which are conductive. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts the grounding continuity.

Flush Pump Before First Use

The pump was tested in lightweight oil. If the test solution could contaminate the fluid you are pumping, flush the pump thoroughly with a compatible solvent. Refer to the Operation Manual 309305 for flushing instructions.

Pressure Relief Procedure

⚠ WARNING

The system remains pressurized until pressure is manually relieved. To reduce the risk of serious injury from pressurized fluid, accidental spray from the gun, or splashing of any fluid, follow this procedure whenever you

- Stop spraying
- Are instructed to relieve pressure
- Check or service any system equipment
- Install, clean, or change spray nozzles

1. Close the bleed-type master air valve (B) to relieve the air pressure.
2. **On electrostatic guns only,** turn the ES ON/OFF lever to OFF.
3. Hold the gun (B) firmly against a grounded metal pail and trigger the gun to relieve the fluid pressure.
4. Place the drain tube (K) in a waste pail. Open the drain/circulation valve (J) to relieve any fluid pressure trapped in the system.

Maintenance

See the separate component instruction manuals for individual component maintenance procedures.

Daily Maintenance

Check the hoses, tubes, and couplings daily. Tighten all fluid connections before each use.

Flushing the System

Flush the system at the following times:

- Before the first-time use
- When changing colors
- Before fluid can dry or settle out in a dormant system
- Before storing the system

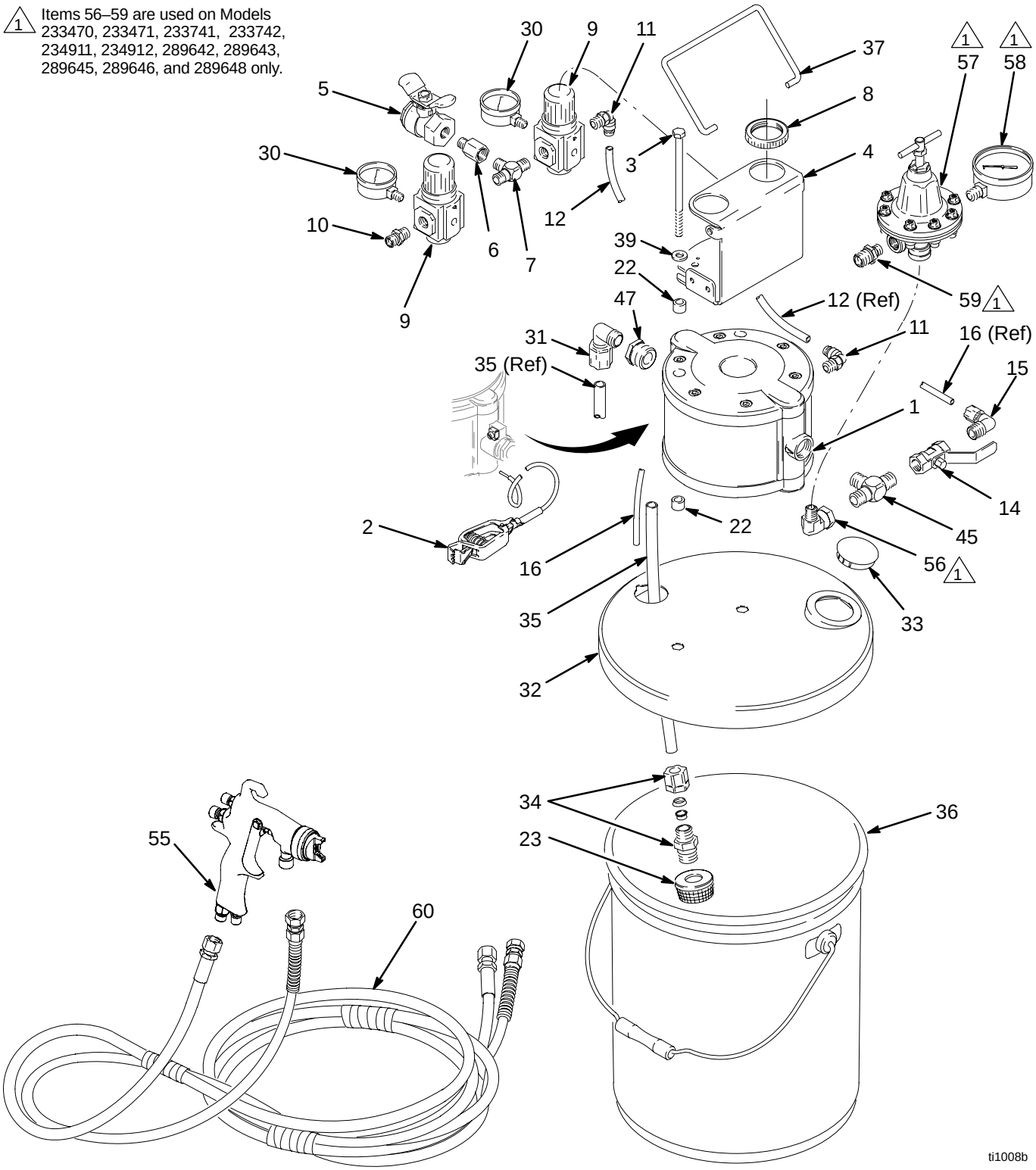
Troubleshooting

PROBLEM	CAUSE	SOLUTION
Pump will not run.	Closed air line valve.	Open valve.
	Inadequate air supply, or clogged/ restricted air line.	Increase air supply. Do not exceed maximum air inlet pressure.
		Open or clear air line.
		Clean air filter.
	Clogged fluid line or spray gun.	Clear, service. Do not allow fluid to set up in the pump and lines.
	Stuck or damaged pump air valve.	Service pump. Use filtered air.
	Ruptured diaphragm.	Service pump.
Pump runs sluggishly.	Worn or damaged spool o-rings.	Service pump.
Pump runs erratically.	Clogged suction line or inlet strainer.	Clear.
	Sticking or leaking check valves.	Service pump.
Pump runs too fast.	Exhausted fluid supply.	Refill fluid supply and prime sprayer.
Pump cycles at stall or fails to hold pressure at stall.	Worn check valves or o-rings.	Service pump.
Audible air leak.	Worn air valve cup or plate.	Service pump.
Air bubbles in fluid.	Loose suction line.	Tighten. Use a compatible liquid thread sealant on connections.
Poor finish or irregular spray pattern.	Incorrect fluid or air pressure at gun.	See gun manual; read fluid manufacturer’s recommendations.
		Use fluid regulator.
	Fluid is too thin or too thick.	Adjust fluid viscosity; read fluid manufacturer’s recommendations.
	Dirty, worn, or damaged spray gun.	Service gun.
	Fluid is settling out.	Use agitator. Order Part No. 245081 Agitator Kit.

Parts

Pail Mount Packages (see model descriptions on page 3)

Models 233466, 233467, 233468, 233469, 233470, 233471, 234911, 234912, 233741, 233742, 289642, 289643, 289644, 289645, 289646, 289647, and 289648.



Parts

Pail Mount Packages (see model numbers on page 12)

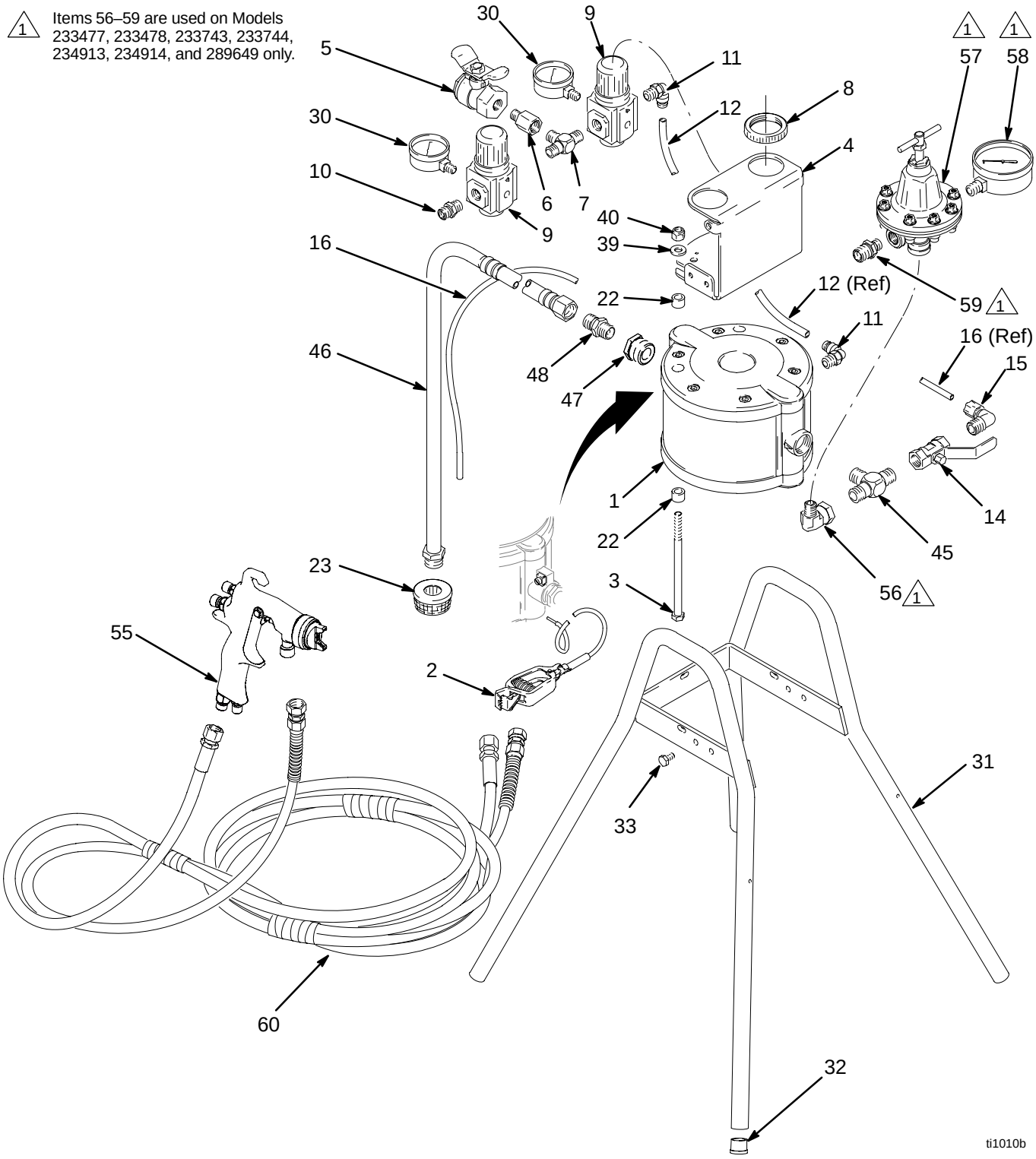
Ref. No.	Part No.	Description	Qty.
1	233500	PUMP, diaphragm; aluminum; *for 233466, 233468, 233470, 233741, 233742*	1
	233501	PUMP, diaphragm; sst; *for 233467, 233469, 233471*	1
2	238909	GROUND WIRE & CLAMP ASSY	1
3	116311	SCREW, cap, hex hd; 5/16 unc x 5.5 in. (140 mm)	2
4	197126	BRACKET, control	1
5	116473	VALVE, air, bleed-type; 1/4 npt(fbe)	1
6	116393	ADAPTER; 1/4 npt (m x f)	1
7	115219	TEE; 1/4 npt(m)	1
8	116514	NUT, regulator	2
9	116513	REGULATOR, air	2
10	162453	NIPPLE; 1/4 npsm x 1/4 npt	1
11	115948	ELBOW; 1/4 npt(m) x 0.312 in. (8 mm) OD tubing	2
12	buy locally	TUBE; polyethylene; 0.312 in. (8 mm) OD	0.5 ft
14	114363	VALVE, ball, fluid; sst; 3/8 npt(fbe)	1
15	116314	ELBOW; 3/8 npt(m) x 0.25 in. (6 mm) OD tubing	1
16	buy locally	TUBE; polyethylene; 0.25 in. (6 mm) OD	2.2 ft
22	197449	SPACER	4
23	218798	STRAINER	1
30	110436	GAUGE, pressure, air	2
31	116315	ELBOW; 3/8 npt(m) x 0.5 in. (13 mm) OD tubing	1
32	197298	COVER, pail; cst; *for 233466, 233468, 233470, 233741, 233742*	1
	197216	COVER, pail; sst; *for 233467, 233469, 233471*	1
33	111813	PLUG, button	1
34	116316	FITTING, straight; 1/2 npt(m) x 0.5 in. (13 mm) OD tubing	1
35	197971	TUBE, suction; polyethylene; 0.5 in. (13 mm) OD x 14.5 in. (368 mm)	1
36	101108	PAIL, 5 gal. (19 l); steel	1
37	197127	HANDLE, pail mount	1
39	104034	WASHER; 5/16 size	2
45	113786	TEE; cst; 3/8 npt(m); *for 233466, 233468, 233470, 233741, 233742*	1
	116400	TEE; sst; 3/8 npt(m); *for 233467, 233469, 233471*	1
47	116350	BUSHING; sst; 3/4 npt(m) x 3/8 npt(f)	1

Ref. No.	Part No.	Description	Qty.
55	288931	GUN, AirPro Conventional; *for 233468, 233469; see manual 312414*	1
	288938	GUN, AirPro HVLP spray; *for 233470, 233471; see manual 312414*	1
	288945	GUN, AirPro Compliant spray; *for 234911, 234912; see manual 312414*	1
	L40T10	GUN, Pro Xp 40 electrostatic; *for 233741; see manual 3A2494*	1
	L60T10	GUN, Pro Xp 60 electrostatic; *for 233742; see manual 3A2494*	1
	289110	GUN, AirPro HVLP Stain; *for 289642, 289645; see manual 312414*	1
	289111	GUN, AirPro Compliant Stain; *for 289643, 289646; see manual 312414*	1
	289109	GUN, AirPro Conventional Stain; *for 289644, 289647; see manual 312414*	1
	L85T10	GUN, Pro Xp 85 electrostatic; *for 289648; see manual 3A2494*	1
56	116395	ELBOW; cst; 1/4 npt(m) x 3/8 npt(f) swivel; *for 233470, 233741, 233742*	1
	207123	ELBOW; sst; 3/8 npt(m) x 3/8 npsm(f) swivel; *for 233471*	1
57	241976	REGULATOR, fluid, acetal; 0–30 psi (0–0.2 MPa, 0–2 bar) range; includes gauge; *for 233470, 233741, 233742; see manual 308325*	1
	214895	REGULATOR, fluid; sst; 0–100 psi (0–0.6 MPa, 0–7 bar) range; *for 233471; see manual 307212*	1
58	187874	GAUGE, pressure, fluid; sst; *for 233471*	1
59	165198	NIPPLE; cst; 1/4 npt x 3/8 npt; *for 233470, 233741, 233742*	1
	171195	NIPPLE; sst; 3/8 npsm x 3/8 npt; *for 233471*	1
60	233499	HOSE ASSY; sst fittings; 3/8 npsm(f) nylon fluid hose; 1/4 npsm(f) air hose; 25 ft (7.6 m); *for 233469, 233471, 233468, 233470*	1
	240425	HOSE ASSY, electrostatic; 3/8 npsm(f) nylon fluid hose; 1/4 npsm(f) air hose with ground wire and left-hand thread; 25 ft (7.6 m); *for 233741, 233742, and 289648*	1

Parts

Stand Mount Packages (see model descriptions on page 3)

Models 233473, 233474, 233475, 233476, 233477, 233478, 234913, 234914, 233743, 233744, and 289649



Parts

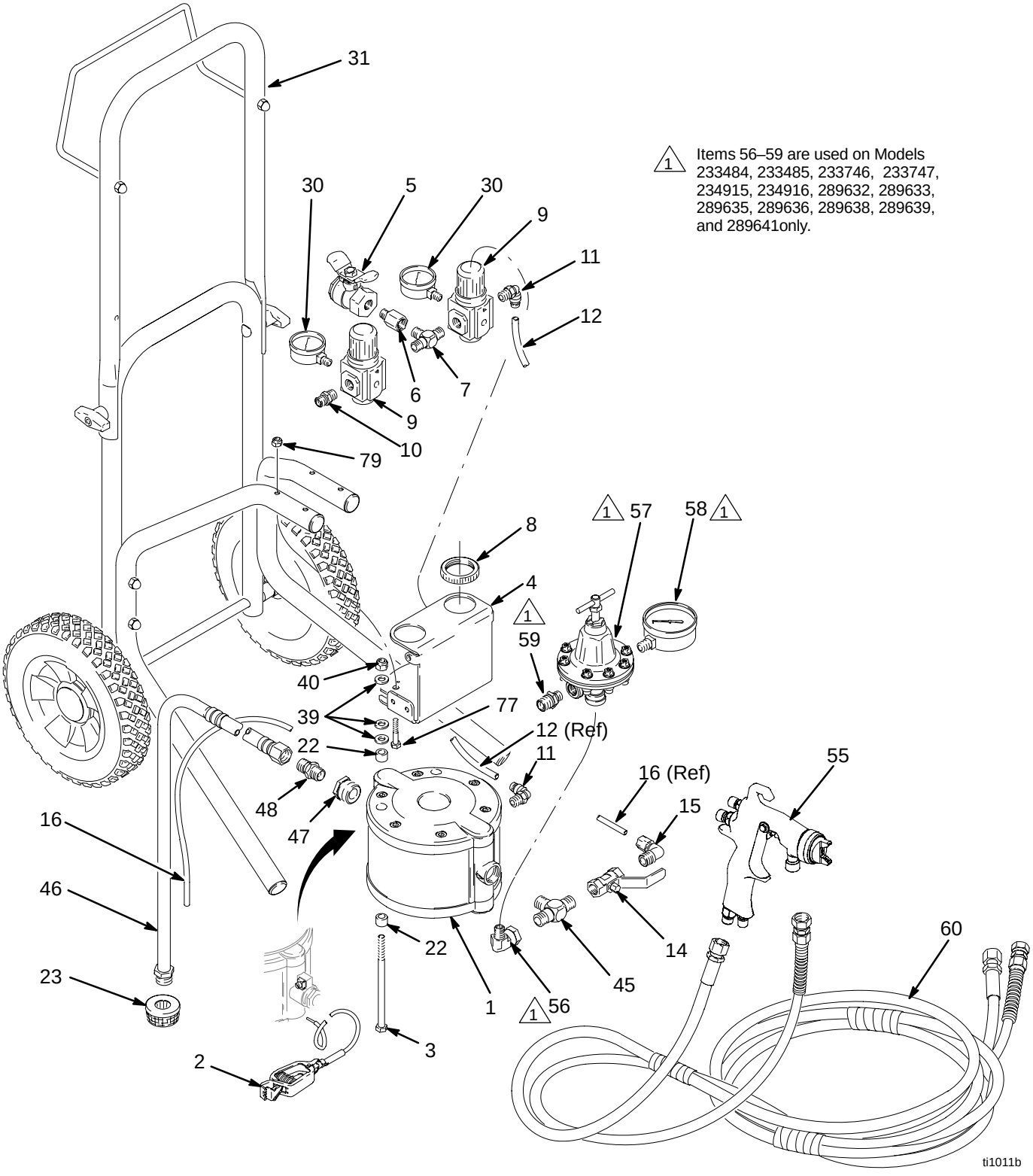
Stand Mount Packages (see model numbers on page 14)

Ref. No.	Part No.	Description	Qty.
1	233500	PUMP, diaphragm; aluminum; *for 233473, 233475, 233477, 233743, 233744*	1
	233501	PUMP, diaphragm; sst; *for 233474, 233476, 233478*	1
2	238909	GROUND WIRE & CLAMP ASSY	1
3	116311	SCREW, cap, hex hd; 5/16 unc x 5.5 in. (140 mm)	2
4	197126	BRACKET, control	1
5	116473	VALVE, air, bleed-type; 1/4 npt(fbe)	1
6	116393	ADAPTER; 1/4 npt (m x f)	1
7	115219	TEE; 1/4 npt(m)	1
8	116514	NUT, regulator	2
9	116513	REGULATOR, air	2
10	162453	NIPPLE; 1/4 npsm x 1/4 npt	1
11	115948	ELBOW; 1/4 npt(m) x 0.312 in. (8 mm) OD tubing	2
12	buy locally	TUBE; polyethylene; 0.312 in. (8 mm) OD	0.5 ft
14	114363	VALVE, ball, fluid; sst; 3/8 npt(fbe)	1
15	116314	ELBOW; 3/8 npt(m) x 0.25 in. (6 mm) OD tubing	1
16	buy locally	TUBE; polyethylene; 0.25 in. (6 mm) OD	5.3 ft
22	197449	SPACER	4
23	218798	STRAINER	1
30	110436	GAUGE, pressure, air	2
31	218743	FRAME, stand, pump	1
32	108175	PLUG, stand	4
33	100333	SCREW, cap, hex hd; 1/4–20 x 0.5 in. (13 mm)	4
39	104034	WASHER; 5/16 size	2
40	111040	NUT, lock; nylon insert; 5/16–18	2
45	113786	TEE; cst; 3/8 npt(m); *for 233473, 233475, 233477, 233743, 233744*	1
	116400	TEE; sst; 3/8 npt(m); *for 233474, 233476, 233478*	1
46	244432	HOSE, suction; aluminum and LDPE; *for 233473, 233475, 233477*	1
	244433	HOSE, suction; sst; *for 233474, 233476, 233478, 233479*	1
47	116350	BUSHING; sst; 3/4 npt(m) x 3/8 npt(f)	1
48	162485	NIPPLE; cst; 3/8 npsm x 3/8 npt; *for 233473, 233475, 233477, 233743, 233744*	1
	112100	NIPPLE; sst; 9/16–18 x 3/8 npt; *for 233474, 233476, 233478*	1
55	288931	GUN, AirPro Conventional; *for 233475, 233476; see manual 312414*	1
	288938	GUN, AirPro HVLP spray; *for 233477, 233478; see manual 312414*	1
	288945	GUN, AirPro Compliant spray; *for 234913, 234914; see manual 312414*	1
	L40T10	GUN, Pro Xp 40 electrostatic; *for 233743; see manual 3A2494*	1
	L60T10	GUN, Pro Xp 60 electrostatic; *for 233744; see manual 3A2494*	1
	L85T10	GUN, Pro Xp 85 electrostatic; *for 289649; see manual 3A2494*	1
56	116395	ELBOW; cst; 1/4 npt(m) x 3/8 npt(f) swivel; *for 233477, 233743, 233744*	1
	207123	ELBOW; sst; 3/8 npt(m) x 3/8 npsm(f) swivel; *for 233478*	1
57	241976	REGULATOR, fluid; acetal; 0–30 psi (0–0.2 MPa, 0–2 bar) range; includes gauge; *for 233477, 233743, 233744; see manual 308325*	1
	214895	REGULATOR, fluid; sst; 0–100 psi (0–0.6 MPa, 0–7 bar) range; *for 233478;see manual 307212*	1
58	187874	GAUGE, pressure, fluid; sst; *for 233478*	1
59	165198	NIPPLE; cst; 1/4 npt x 3/8 npt; *for 233477, 233743, 233744*	1
	171195	NIPPLE; sst; 3/8 npsm x 3/8 npt; *for 233478*	1
60	233499	HOSE ASSY; sst fittings; 3/8 npsm(f) nylon fluid hose; 1/4 npsm(f) air hose; 25 ft (7.6 m); *for 233476, 233478, 233475, 233477*	1
	240425	HOSE ASSY, electrostatic; 3/8 npsm(f) nylon fluid hose; 1/4 npsm(f) air hose with ground wire and left-hand thread; 25 ft (7.6 m); *for 233743, 233744, and 289649*	1

Parts

Cart Mount Packages (see model descriptions on page 3)

Models 233480, 233481, 233482, 233483, 233484, 233485, 234915, 234916, 233746, 233747, 289632, 289633, 289634, 289635, 289636, 289637, 289638, 289639, 289640, and 289641



Parts

Cart Mount Packages (see model numbers on page 16)

Ref. No.	Part No.	Description	Qty.
1	233500	PUMP, diaphragm; aluminum; *for 233480, 233482, 233484, 233746, 233747*	1
	233501	PUMP, diaphragm; sst; *for 233481, 233483, 233485*	1
2	238909	GROUND WIRE & CLAMP ASSY	1
3	116311	SCREW, cap, hex hd; 5/16 unc x 5.5 in. (140 mm)	2
4	197126	BRACKET, control	1
5	116473	VALVE, air, bleed-type; 1/4 npt(fbe)	1
6	116393	ADAPTER; 1/4 npt (m x f)	1
7	115219	TEE; 1/4 npt(m)	1
8	116514	NUT, regulator	2
9	116513	REGULATOR, air	2
10	162453	NIPPLE; 1/4 npsm x 1/4 npt	1
11	115948	ELBOW; 1/4 npt(m) x 0.312 in. (8 mm) OD tubing	2
12	buy locally	TUBE; polyethylene; 0.312 in. (8 mm) OD	0.5 ft
14	114363	VALVE, ball, fluid; sst; 3/8 npt(fbe)	1
15	116314	ELBOW; 3/8 npt(m) x 0.25 in. (6 mm) OD tubing	1
16	buy locally	TUBE; polyethylene; 0.25 in. (6 mm) OD	5.3 ft
22	197449	SPACER	4
23	218798	STRAINER	1
30	110436	GAUGE, pressure, air	2
31	233581	CART ASSEMBLY	1
39	104034	WASHER; 5/16 size	6
40	111040	NUT, lock; nylon insert; 5/16–18	2
45	113786	TEE; cst; 3/8 npt(m); *for 233480, 233482, 233484, 233746, 233747*	1
	116400	TEE; sst; 3/8 npt(m); *for 233481, 233483, 233485*	1
46	244432	HOSE, suction; aluminum and LDPE; *for 233480, 233482, 233484, 233746, 233747*	1
	244433	HOSE, suction; sst; *for 233481, 233483, 233485*	1
47	116350	BUSHING; sst; 3/4 npt(m) x 3/8 npt(f)	1
48	162485	NIPPLE; cst; 3/8 npsm x 3/8 npt; *for 233480, 233482, 233484, 233746, 233747*	1
	112100	NIPPLE; cst, 3/8 npsm x 3/8 npt; *for 233481, 233483, 233485*	
55	*For guns L40T10, L60T10, and L85T10 see manual 3A2494*		
	L40T10	GUN, Pro Xp 40 electrostatic; *for 233746*	1
	L60T10	GUN, Pro Xp 60 electrostatic; *for 233747*	1
	L85T10	GUN, Pro Xp 85 electrostatic; *for 289641*	1

Ref. No.	Part No.	Description	Qty.
	For guns 288938, 288945, 244399, 288969, 288972, 288966, 289110, 289111, and 289109 see manual 312414		
	288938	GUN, AirPro HVLP spray; *for 233484, 233485*	1
	288945	GUN, AirPro Compliant spray; *for 234915, 234916*	1
	288969	GUN, AirPro HVLP Waterborne; *for 289632*	1
	288972	GUN, AirPro Compliant Waterborne; *for 289633*	1
	288966	GUN, AirPro Conventional Waterborne; *for 289634*	1
	289110	GUN, AirPro HVLP Stain; *for 289635, 289638*	1
	289111	GUN, AirPro Compliant Stain; *for 289636, 289639*	1
	289109	GUN, AirPro Conventional Stain; *for 289637, 289640*	1
56	116395	ELBOW; cst; 1/4 npt(m) x 3/8 npt(f) swivel; *for 233484, 233746, 233747*	1
	207123	ELBOW; sst; 3/8 npt(m) x 3/8 npsm(f) swivel; *for 233485*	1
57	241976	REGULATOR, fluid; acetal; 0–30 psi (0–0.2 MPa, 0–2 bar) range; includes gauge; *for 233484, 233746, 233747; see manual 308325*	1
	214895	REGULATOR, fluid; sst 0–100 psi (0–0.6 MPa, 0–7 bar) range; *for 233485; see manual 307212*	1
58	187874	GAUGE, pressure fluid; sst; *for 233485*	1
59	165198	NIPPLE; cst; 1/4 npt x 3/8 npt; *for 233484, 233746, 233747*	1
	171195	NIPPLE; sst; 3/8 npsm x 3/8 npt; *for 233485*	1
60	233499	HOSE ASSY; sst fittings; 3/8 npsm(f) nylon fluid hose; 1/4 npsm(f) air hose; 25 ft (7.6 m); *for 233483, 233485, 233482, 233484*	1
	240425	HOSE ASSY, electrostatic; 3/8 npsm(f) nylon fluid hose; 1/4 npsm(f) air hose with ground wire and left-hand thread; 25 ft (7.6 m); *for 233746, 233747, and 289641*	1
77	100058	SCREW, cap, hex hd; 1/4–20 x 1.5 in. (38 mm)	4
79	102040	NUT, lock; nylon insert; 1/4–20	4

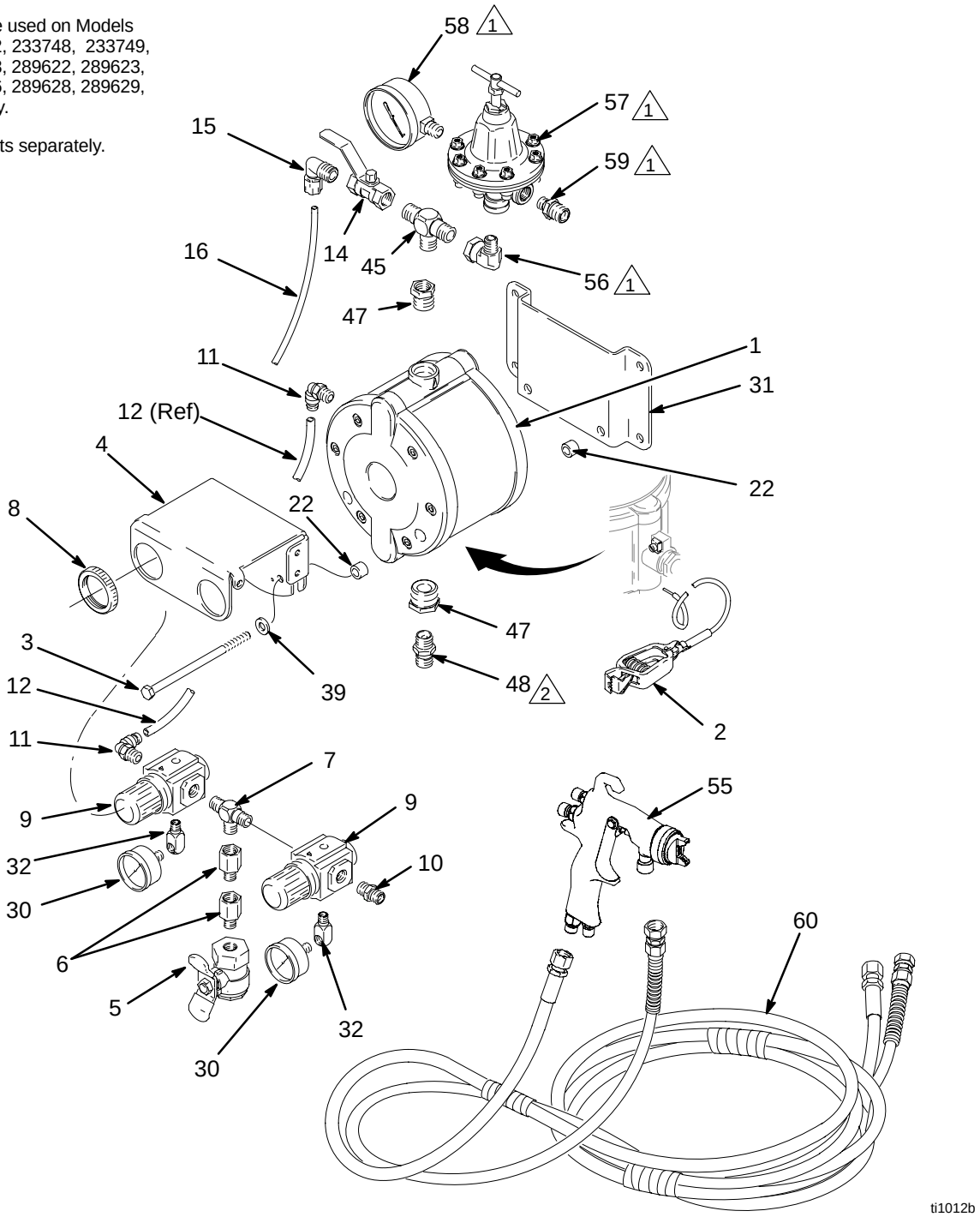
Parts

Wall Mount Packages (see model descriptions on page 3)

Models 233487, 233488, 233489, 233490, 233491, 233492, 234917, 234918, 233748, 233749, 289622, 289623, 289624, 289625, 289626, 289627, 289628, 289629, 289630, and 289631

△1 Items 56–59 are used on Models 233491, 233492, 233748, 233749, 234917, 234918, 289622, 289623, 289625, 289626, 289628, 289629, and 289631 only.

△2 Order suction kits separately. See page 9.



Parts

Wall Mount Packages (see model numbers on page 18)

Ref. No.	Part No.	Description	Qty.
1	233500	PUMP, diaphragm; aluminum; *for 233487, 233489, 233491, 233748, 233749*	1
	233501	PUMP, diaphragm; sst; *for 233488, 233490, 233492*	1
2	238909	GROUND WIRE & CLAMP ASSY	1
3	116311	SCREW, cap, hex hd; 5/16 unc x 5.5 in. (140 mm)	2
4	197126	BRACKET, control	1
5	116473	VALVE, air, bleed-type; 1/4 npt(fbe)	1
6	116393	ADAPTER; 1/4 npt (m x f)	2
7	115219	TEE; 1/4 npt(m)	1
8	116514	NUT, regulator	2
9	116513	REGULATOR, air	2
10	162453	NIPPLE; 1/4 npsm x 1/4 npt	1
11	115948	ELBOW; 1/4 npt(m) x 0.312 in. (8 mm) OD tubing	2
12	buy locally	TUBE; polyethylene; 0.312 in. (8 mm) OD	0.5 ft
14	114363	VALVE, ball, fluid; sst; 3/8 npt(fbe)	1
15	116314	ELBOW; 3/8 npt(m) x 0.25 in. (6 mm) OD tubing	1
16	buy locally	TUBE; polyethylene; 0.25 in. (6 mm) OD	6.3 ft
22	197449	SPACER	4
30	108190	GAUGE, pressure, air	2
31	197426	BRACKET, wall mount	1
32	191892	FITTING, elbow, street; 90°	2
39	104034	WASHER; 5/16 size	2
45	113786	TEE; cst; 3/8 npt(m); *for 233487, 233489, 233491, 233748, 233749*	1
	116400	TEE; sst; 3/8 npt(m); *for 233488, 233490, 233492*	1
47	116350	BUSHING; sst; 3/4 npt(m) x 3/8 npt(f)	1
48	162485	NIPPLE; cst; 3/8 npsm x 3/8 npt; *for 233487, 233489, 233491, 233748, 233479*	1
	112100	NIPPLE; sst; 9/16–18 x 3/8 npt; *for 233488, 233490, 233492*	1
55	*For guns L40T10, L60T10, and L85T10 see manual 3A2494*		
	L40T10	GUN, Pro Xp 40 electrostatic; *for 233748*	1
	L60T10	GUN, Pro Xp 60 electrostatic; *for 233749*	1
	L85T10	GUN, Pro Xp 85 electrostatic; *for 289631*	1
	For guns 288931, 288945, 288945, 288969, 288972, 288966, 289110, 289111, and 289109 see manual 312414		
	288969	GUN, AirPro HVLP Waterborne; *for 289622*	1
	288972	GUN, AirPro Compliant Waterborne; *for 289623*	1
	288966	GUN, AirPro Conventional Waterborne; *for 289624*	1
	289110	GUN, AirPro HVLP Stain; *for 289625, 289628; see manual 312414*	1
	289111	GUN, AirPro Compliant Stain; *for 289626, 289629*	1
	289109	GUN, AirPro Conventional Stain; *for 289627, 289630*	1
56	116395	ELBOW; cst; 1/4 npt(m) x 3/8 npt(f) swivel; *for 233491, 233748, 233749*	1
	207123	ELBOW; sst; 3/8 npt(m) x 3/8 npsm(f) swivel; *for 233492*	1
57	241976	REGULATOR, fluid; acetal; 0–30 psi (0–0.2 MPa, 0–2 bar) range; includes gauge; *for 233491, 233748, 233749; see manual 308325*	1
	214895	REGULATOR, fluid; sst 0–100 psi (0–0.6 MPa, 0–7 bar) range; *for 233492; see manual 307212*	1
58	187874	GAUGE, pressure, fluid; sst; *for 233492*	1
59	165198	NIPPLE; cst; 1/4 npt x 3/8 npt; *for 233491, 233748, 233749*	1
	171195	NIPPLE; sst; 3/8 npsm x 3/8 npt; *for 233492*	1
60	233499	HOSE ASSY; sst fittings; 3/8 npsm(f) nylon fluid hose; 1/4 npsm(f) air hose; 25 ft (7.6 m); *for 233490, 233492, 233489, 233491*	1
	240425	HOSE ASSY, electrostatic; 3/8 npsm(f) nylon fluid hose; 1/4 npsm(f) air hose with ground wire and left-hand thread; 25 ft (7.6 m); *for 233748, 233749, and 289631*	1

Technical Data

Category	Data
Maximum fluid working pressure	100 psi (0.7 MPa, 7 bar)
Maximum incoming air pressure	100 psi (0.7 MPa, 7 bar)
Maximum operating temperature	120° F (49° C)
Wetted Parts:	
Pump	See pump instruction manual 309303.
Gun	See gun instruction manuals 312414 or 3A2494.
Fluid pressure regulator	See regulator instruction manuals 307212 or 308325.
Fluid hoses, aluminum packages	nylon, nickel-plated carbon steel (cst), LDPE/rubber blend (suction hose), aluminum
Fluid hoses, stainless steel packages	nylon, stainless steel (sst), LDPE/rubber blend (suction hose)
Fluid hoses, electrostatic packages	nylon, nickel-chrome plated carbon steel (cst), LDPE/rubber blend (suction hose)
Fluid fittings, aluminum packages	Zinc-plated carbon steel (cst), stainless steel (sst), polypropylene, polyethylene
Fluid fittings, stainless steel packages	Stainless steel (sst), polypropylene, polyethylene
Pail cover, aluminum packages	Zinc-plated carbon steel (cst)
Pail cover, stainless steel packages	Stainless steel (sst)
Weight (without hoses or gun):	
Pail mount packages	Aluminum: 22 lb (10 kg) Stainless Steel: 28 lb (12.7 kg)
Stand mount packages	Aluminum: 20 lb (9.1 kg) Stainless Steel: 27 lb (12.3 kg)
Cart mount packages	Aluminum: 30 lb (13.6 kg) Stainless Steel: 36 lb (16.4 kg)
Wall mount packages	Aluminum: 19 lb (8.6 kg) Stainless Steel: 24 lb (10.9 kg)

Sound Pressure Levels in dB(A)* (measured at 1 m from unit)

Input Air Pressures	Sound Pressure
Pump: 20 psi (0.14 MPa, 1.4 bar), Fluid Regulator: 5 psi (0.035 MPa, 0.35 bar)	64.7
Pump: 40 psi (0.28 MPa, 2.8 bar), Fluid Regulator: 15 psi (0.105 MPa, 1.05 bar)	68.5
Pump: 40 psi (0.28 MPa, 2.8 bar), No Fluid Regulator	69.1
Pump: 40 psi (0.28 MPa, 2.8 bar), Circulation Mode	69.2
Pump: 60 psi (0.42 MPa, 4.2 bar), No Fluid Regulator	72.1

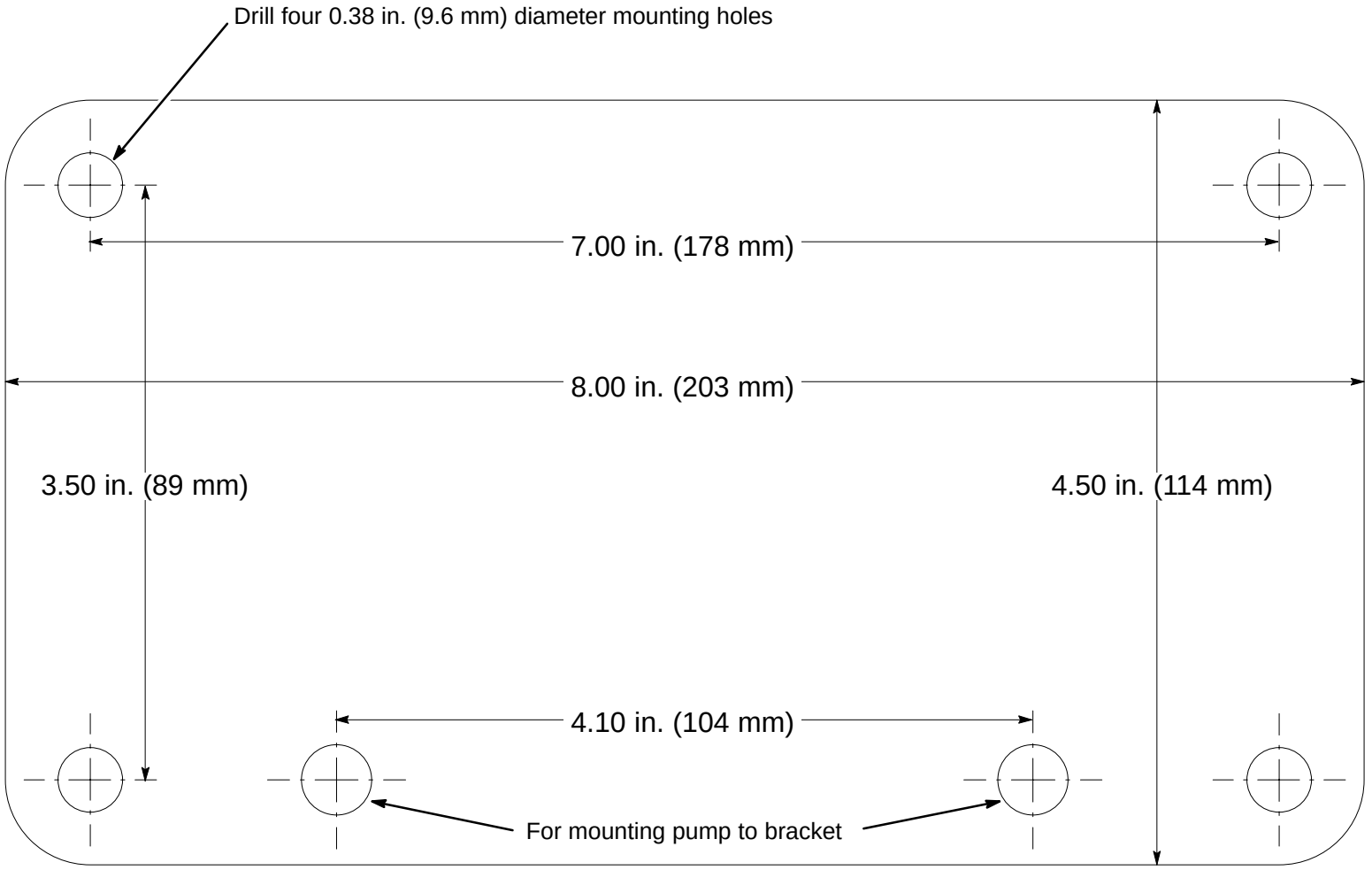
Sound Power Levels in dB(A)* (tested in accordance with ISO 3744)

Input Air Pressures	Sound Power
Pump: 20 psi (0.14 MPa, 1.4 bar), Fluid Regulator: 5 psi (0.035 MPa, 0.35 bar)	76.3
Pump: 40 psi (0.28 MPa, 2.8 bar), Fluid Regulator: 15 psi (0.105 MPa, 1.05 bar)	80.1
Pump: 40 psi (0.28 MPa, 2.8 bar), No Fluid Regulator	80.8
Pump: 40 psi (0.28 MPa, 2.8 bar), Circulation Mode	80.8
Pump: 60 psi (0.42 MPa, 4.2 bar), No Fluid Regulator	83.7

* Sound readings are for bare packages only. Refer to the separate gun manual for gun sound data.

Wall Mounting Template

Use this drawing as a template to drill mounting holes in the wall.
Verify that the dimensions are exact and the hole locations are level before drilling the holes.



Graco Standard Warranty

Graco warrants all equipment manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of thirty-six months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within four (4) years of the date of sale.

Graco makes no warranty, and disclaims all implied warranties of merchantability and fitness for a particular purpose in connection with accessories, equipment, materials or components sold but not manufactured by Graco. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés à la suite de ou en rapport, directement ou indirectement, avec les procedures concernées.

Graco Information

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call to identify the distributor closest to you:
Phone: 612–623–6921 or **Toll Free:** 1–800–328–0211 **Fax:** 612–378–3505

All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM 309304

Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440–1441 • USA

www.graco.com
Revised July 2022

UniCure

Spraybooths
104 Spence Lane
Nashville, TN 37210

CODES PACKAGE
FOR
HEATED SPRAYBOOTH

AUTHORIZATION TO MARK

This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

This document is the property of Intertek Testing Services and is not transferable. The certification mark(s) may be applied only at the location of the Party Authorized To Apply Mark.

Control Number: 3031776 **Authorized by:** for Michelle Lake
William T. Starr, Certification Manager

This document supersedes all previous Authorizations to Mark for the noted Report Number.

Intertek Testing Services NA Inc.
165 Main Street, Cortland, NY 13045
Telephone 800-345-3851 or 607-753-6711 Fax 607-756-6699

Applicant:	Roberts Gordon LLC	**Manufacturer:**	Roberts Gordon LLC
Address:	1250 William St Buffalo, NY 14206	**Address:**	1250 William St Buffalo, NY 14206
Country:	USA	**Country:**	USA
Contact:	Stephen Richter	**Contact:**	Stephen Richter
Phone:	716-852-4400	**Phone:**	716-852-4400
FAX:	716-852-0854	**FAX:**	716-852-0854
Email:	steric@rg-inc.com	**Email:**	steric@rg-inc.com

Party Authorized To Apply Mark: Same as Manufacturer
Report Issuing Office: Columbus

Standard(s):	Non-Recirculating Direct Gas-Fired Industrial Air Heaters ANSI Z83.4-2003, Second Edition 2003 CSA 3.7-2003; Addenda A: 2004; Addenda B: 2006
Product :	NON-RECIRCULATING DIRECT GAS-FIRED INDUSTRIAL AIR HEATER
Models:	Non-Recirculating Direct Gas-Fired Industrial Air Heaters, model numbers B-350, B-650, B-1000, B-2000, and B-3000. Each of these models numbers may end with a –(C) signifying Canadian destination. -M follows units for non re-circulating

UniCure

SPRAYBOOTHS
104 Spence Lane
Nashville, TN 37210
1-800-868-3033 (615) 889-3330
Fax # (615) 889-6773
www.spraybooths.com

UNICURE'S COMPLIANCE WITH NATIONAL SAFETY CODES

INTENTION OF THIS REPORT

The intention of this report is to identify the applicable code requirements and to confirm that UniCure Spraybooths, built in the USA for Interstate Marketing Corporation, are designed and built to conform to or exceed them.

MANUFACTURERS SPECIFICATIONS COMPARED TO NFPA & IBC CODES

MANUFACTURED IN COMPLIANCE WITH OSHA - NFPA - IBC - IFC - NEC
CONFORMS TO IBC 2015

This code sets forth the minimum requirements for automotive paint spraybooths. By reference it requires full compliance with the National Fire Protection Association Standard No. 33 entitled "Spray Application Using Flammable and Combustible Materials" and International Fire Code.

NFPA CODE

It requires that "The booth be constructed of steel not thinner than No. 18 MSG, securely and rigidly supported".

UNICURES CONSTRUCTION

The construction of UniCure exceeds this code by using steel panels, interlocked by exterior flanges forming a super rigid structure with smooth interior walls. The panels are built of 18 MSG galvanized steel.

A sealant is used in every joint. By design, the structure is pressurized and air tight.

This type of construction also surpasses the noncombustible requirements of the code.

NFPA CODE

It requires that the spraybooth must be designed to sweep air towards the exhaust outlet. The interior must be structured to prevent pocketing of residues and to facilitate cleaning and washing without mechanical injury.

UNICURE'S CONSTRUCTION

The walls, ceiling, floor, doors, filters and lighting arrangement are in full compliance as all surfaces are smooth and free of pockets.

NFPA CODE

It requires that all metal components of the spraybooth should be permanently grounded.

UNICURE'S CONSTRUCTION

The electrical power box of UniCure is designed for permanent grounding of the whole structure. The power execution of the electrical works at the erection site should be monitored by the local electrical authorities.

NFPA CODE

Any flame or source of ignition shall not be placed within the paint spraybooth.

UNICURE'S CONSTRUCTION

The electrical motors, fans, heated air make-up system and electrical components are all located outside the spraying chamber and separated from it by walls that exceed the code requirements.

Internal lighting is provided by exterior mounted light fixtures, which are double protected from flammable vapor exposure. First, they are protected by the installation of a gasketed glass enclosure. Second, by the downdraft motion of the air that will exhaust all overspray produced in the chamber, vertically down and away from the light fixtures.

Electrical wiring providing power to the unit must be field installed once the booth is constructed. The wiring must comply with NFPA code 70. A competent licensed electrician must install this system, under the permit and inspection of the local electric code official.

IBC AND NFPA CODES SPECIFY

The ventilation of a booth should provide a safe atmosphere inside the spraying chamber by using the appropriate percentage of fresh air intake.

UNICURE'S CONSTRUCTION

UniCure uses 100% fresh air during the spraying and baking cycles. Air is brought from the outside to replace the air inside the spraying chamber 4 times a minute. Volatile fumes and paint thinners are always exhausted and never re-circulated. The volume of air and the speed of exchange exceed the standard's requirements.

Purification of the exhausted air is not a code requirement but UniCure is designed to comply with Environment Protection Standards. Its double, progressively denser, paint stop filters conform to the most stringent state and local codes.

NFPA CODE

It requires that the spraying area be protected with an approved automatic fire extinguishing system.

UNICURE'S CONSTRUCTION

The unit is designed to accept:

a. Automatic water sprinklers.
b. Dry chemical.
c. Halon 1211 / 1301

In this manner UniCure complies with the section 416 of the IBC code that requires the installation of an approved automatic fire extinguishing system.

NFPA CODE

The code provides an exception for single enclosures used from spraying and baking. It states that a heating system installed outside and adjacent to the paint spraybooth must be equipped with an interlocking ventilating system arranged to:

a. Thoroughly ventilate the drying space before the heating system could start.
b. Maintain a safe atmosphere by separation from any source of ignition.
c. Automatically shutdown the heating system in the event of failure of the ventilating system.

All these safeguards are incorporated into the UniCure Spraybooth.

In addition, the following is a list of SAFETY FEATURES used:

*Thermocouples are installed in the air stream of the heated air make-up system to automatically shut off the burner in the case of an undue rise in temperature.

*All doors close from the inside. All units are provided with a service door, with safety glass, ¼" thick.

*In the spray cycle the fans that are in operation move the appropriate CFM and provide the correct air changes per minute based on the size of the booth. No air that has passed by the spraying chamber is ever re-circulated in the spray cycle.

*An efficient filtration system arrests virtually all pigment and pollutants before the air is discharged back into the outside atmosphere.

CONCLUSION

UniCure is designed and manufactured to meet or exceed the requirements set forth by the National Fire Protection Association's "Standard for spray application using flammable and combustible materials" Number 33-2011, and the IBC, International Building Code, 2015, Section 416 "Application of Flammable Finishes" as well as IFC, International Fire Code, 2012, section 2404. These are nationally recognized and are generally the basic requirements for state and local codes. There may be additional requirements specified in state or local codes.

Exception: Consult local codes for fire suppression systems requirements.

MFD. FOR

UniCure Interstate Marketing Corp.

104 SPENCE LANE
NASHVILLE, TN 37210
(615) 889 – 3330

3031776

ETL LISTED
CONFORMS TO
ANSI STD Z83.4
ANSI STD Z83.4A
CERTIFIED TO
CSA STD 3.7
CSA STD 3.7A

RATING PLATE

ANSI Z83.4-1999 Direct Gas-Fired Makeup Air Heater
For Industrial / Commercial Use
FOR EITHER INDOOR OR OUTDOOR INSTALLATION

SERIAL NO.		MODEL NO.		H.P.			
VOLTAGE		PHASE		Hz.		FLA	
RATED CFM		SCFM	RATED E.S.P.		"W.C		

	Maximum Input (BTU / HR)
	Minimum Input (BTU / HR)
	Gas Type
	Maximum Permissible Gas Supply Pressure
	Minimum Permissible Gas Supply Pressure
	For Purpose of Maximum Input Adjustment

CLEARANCE FOR SERVICE: 48" in front of control panel, fan and filter access doors. CLEARANCE TO COMBUSTIBLES: 6" inches all sides

-30 Deg. F.	Minimum Ambient Air Temperature
"W.C.	Maximum Burner Profile Air Pressure Drop
"W.C.	Minimum Burner Profile Air Pressure Drop
Deg. F.	Maximum Discharge Temperature
Deg. F.	Maximum Temperature Rise
"W.C.	Manifold Pressure for Maximum Input (the difference in manifold pressure between no fire and high fire).

-- CAUTION --

THIS HEATER REQUIRES AT LEAST 4 CFM OUTSIDE AIR PER 1000 BTU PER HOUR. FOR DETAILS AND RECIRCULATION APPLICATION LIMITATIONS, SEE MANUFACTURER'S INSTRUCTIONS

FOR YOUR SAFETY

IF YOU SMELL GAS:
1) OPEN WINDOWS
2) DON'T TOUCH ELECTRICAL SWITCHES
3) EXTINGUISH ANY OPEN FLAMES
4) IMMEDIATELY CALL YOUR GAS SUPPLIER

FOR YOUR SAFETY

THE USE AND STORAGE OF GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN OPEN CONTAINERS IN THE VICINITY OF THIS APPLIANCE IS HAZARDOUS

SO #

UniCure

SPRAYBOOTHS

104 Spence Lane
Nashville, Tennessee 37210
1-800-868-3033
(615) 889-3330 TN

CERTIFICATE OF COMPLIANCE

- This heater is designed to meet the standards of the AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI Z83.18 and Z83.4) and the NATIONAL FIRE PROTECTION ASSOCIATION CODE (NFPA 54).

- All gas and electrical components are AGA, CGA or UL approved as they apply. All wiring is in accordance with the latest standards set by the NATIONAL ELECTRICAL CODE (NEC).

P/N 66669

APPROVED — ALL MODELS

AMERICAN GAS ASSOCIATION LABORATORIES

DESIGN AMERICAN GAS ASSOCIATION CERTIFIED

COPY

Appliance *Certificate*

CERTIFICATE NO. C2678001

APPLIANCE TYPE Direct Gas-Fired Make-Up Air Heaters and Direct Gas-Fired Industrial Air Heaters

STANDARD(S) ANSI Z83.4, ANSI Z83.18

MODEL(S) B-(650,1000,2000,3000)

ISSUED TO Bananza Air Management Systems, Inc.

American Gas Association certifies to the manufacturer that the design of the appliance(s) listed above has (have) been found to comply with applicable sections of the above standards. The manufacturer may display on all appliances that are equivalent to the certified model(s) the Laboratories' Certification Seal for Appliances, which has been registered in the U.S. Patent Office by the Association. This Certificate is not assignable nor transferable without written consent of the Association and is revocable. The manufacturer or other party to whom this certificate is issued has signed either an Application for Certification, Application for Certification under A.G.A. Requirements, or the Distributor's Listing Agreement and the certification or revocation thereof is subject to all the terms and conditions specified therein.

ISSUED AT Cleveland, OH EFFECTIVE

THIS 22nd DAY OF November ,19 93

AMERICAN GAS ASSOCIATION

BY *Richard J. Schulte*

RICHARD J. SCHULTE
Vice President, A.G.A. Laboratories

AMERICAN GAS ASSOCIATION HEAT LIGHT POWER INCORPORATED 1919

MICHAEL BALY III
President

UniCure

Spraybooths
104 Spence Lane
Nashville, TN 37210
1-800-868-3033
(615) 889-3330 – TN

UniCure Heated / Air Makeup

Direct fired gas burner 1.2 million BTU with paint and curing. The heater is fully insulated. The units are American made, approved, and all gas and electrical components are AGA, CGA or UL approved. Maximum output allows you to paint at a range from 50° to 90°, and curing from 120° to 170°.

UniCure Control Panel

The control panel contains main booth switch, heater switch, spray/cure switch, light switch, purge timer, and curing timer. The booth includes indicator lights to show the operating mode of the booth. Separate temperature selectors are used for paint and cure cycles in order for the operator to select the proper temperature per cycle. Digital read out showing booth temperature. Magnehelic gauge to indicate booth pressure and to indicate when to change exhaust or intake filters. Booth pressure will be maintained by a balance control system.

System Air Function

Paint Cycle – 100% fresh air. Cure-Cycle – 100% fresh air, but air is to be reduced in half for energy efficiency. Both cycles are operated on positive pressure.

Pre-Filters

Pre-filtering cell with aluminum filters.

Ceiling / Filters

The ceiling has high efficiency micro fibers. Viledon 560G pads or R1 pads 20” x 20”.

Safety / Equipment

- High heat limit sensor
- Automatic burner shut off in case of: Thermocouple failure – heat sensor failure – fan motor malfunction.
- Automatic shut off of lights during the cure cycle
- No recirculated air in paint or curing cycle
- No baffles or dampers to malfunction in our exhaust system
- No air recirculation valves to malfunction
- 100% fresh air in the paint and cure cycle
- Pressure sensitive locks on the personnel doors
- Separate thermostat for paint and curing cycle
- Electrical components are UL approved
- ¾” Air solenoid valve
- Push button resets in main control panel
- Purge cycle before curing starts
- Cool down cycle
- Cool down cycle will maintain the air at painting temperature

Warranty

One Year Limited Warranty

Note:

Heated air make-up can be mounted on either side, rear or ceiling, or roof.

UniCure

Spraybooths
104 Spence Lane
Nashville, TN 37210
1-800-868-3033
(615) 889-3330 – TN

SEQUENCE OF OPERATION – UNICURE SPRAYBOOTH

Operator switches fan and heat to ON, sets spray temperature and the following things happen:

- Exhaust fan is energized on high speed just before heater fan is energized.
- After heater fan is energized, burner relay is energized and heater maintains temperature set point.

When heater is switched to CURE the following things happen:

- The PURGE timer is energized and purges the booth for any adjusted period of time (Heater remains in SPRAY mode)
- The CURE timer is energized simultaneously.

When the PURGE timer times out:

- The CURE RELAY is energized
- Temperature control switches from SPRAY to CURE.
- Sensors in the FAN DISCHARGE switches from SPRAY to CURE.
- Booth lights go out.
- EXHAUST FAN switches from HIGH to LOW speed.
- The DISCHARGE DAMPER on heater is energized and closes half of the way.

THE AIR FLOW IN THE BOOTH IS NOW REDUCED 50% AND CURING HAS BEGUN.

The burner will now modulate to maintain the DISCHARGE TEMPERATURE of the heater as selected on the CURE temperature selection dial between 120°F and 170°F.

Once curing is completed, (CURE timer times out) the following things happen:

- The COOL DOWN timer is energized
- Booth lights come back on
- CURE RELAY cuts out – system reverts back to SPRAY mode
- EXHAUST FAN switches back to high speed

System remains in SPRAY mode through cool down period. When cool down timer times out, the following things happen:

- Both heater and exhaust fans cut out
- Booth lights remain on
- Indicator lights on remote panel remain on

The system may be shut off or reset by turning the blower selector switch to OFF, and the SPRAY – CURE switch back to SPRAY.

UniCure

Spraybooths
104 Spence Lane
Nashville, TN 37210
(800) 868-3033
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www.spraybooths.com

Revised
10/22/04

UNICURE HEATED AIR MAKE-UP U-1000 REQUIREMENTS

ELECTRICAL REQUIREMENTS FOR HEATER:
(We must know your voltage **before** ordering - additional cost for single phase)

Single Phase Service		3 Phase Service		3 Phase Service
208 - 230 Volt	**OR**	208 - 230 Volt	**OR**	440 - 460 Volt
100 Amp		60 Amp		30 Amp

ELECTRICAL REQUIREMENTS FOR LIGHTS:
(We must know your voltage **before** ordering)
***All light fixtures are single phase with F32/T8 light tubes.**
***Check booth specifications for actual quantity of fixtures and light tubes.**

208 - 230 Volt Heater Requires (1) 20 Amp 110 Volt Circuit for Every (36) Light Tubes

440 - 460 Volt Heater Requires (1) 20 Amp 110 Volt Circuit for Every (36) Light Tubes
OR
440 - 460 Volt Heater Requires (1) 15 Amp 277 Volt Circuit for Every (54) Light Tubes

Example: 230 Volt system w/ (12) 4 tube fixtures has a total of (48) light tubes. This system would require (2) 20 Amp 110 volt circuits.

NATURAL GAS REQUIREMENTS:

10" to 14" Water Column at Heater
1.5 Million BTU
Direct Fired

PROPANE GAS REQUIREMENTS:

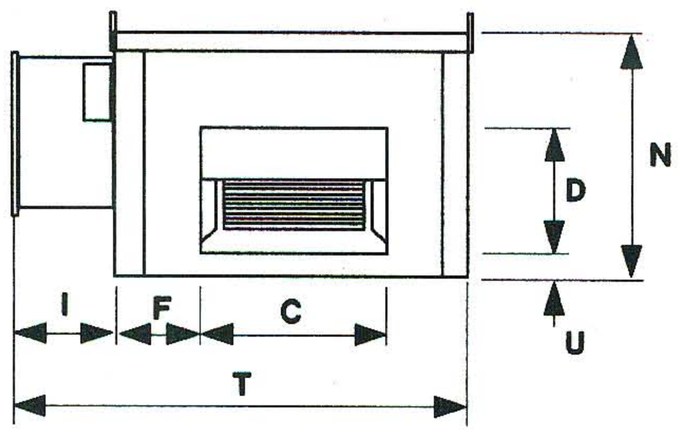
7" to 10" Water Column at Heater
1.5 Million BTU
Direct Fired

HEATER LOCATION:

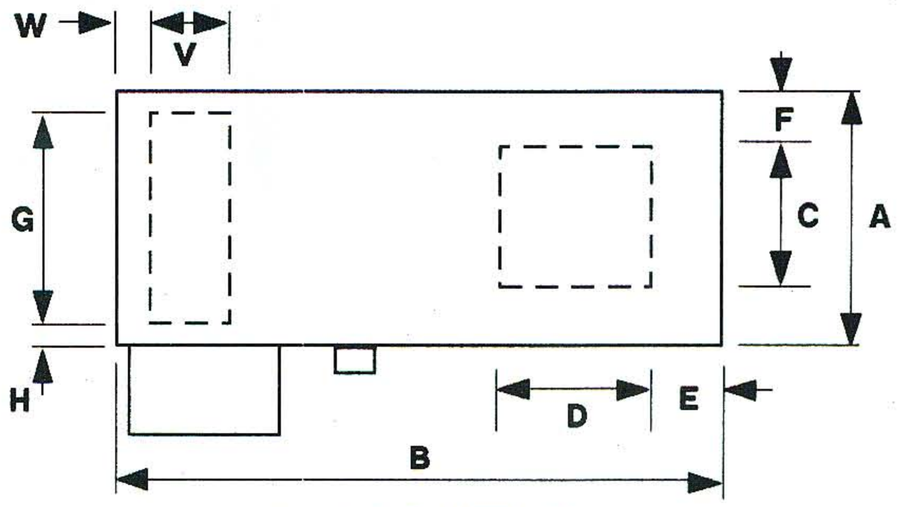
Suspended inside from pearlings or rafters
Supported inside on optional stand
Supported outside on optional stand
Set outside on roof with optional curb

Approximate Heater System Weight:
Heater Only - 900 lbs.
Heater with Intake Ductwork - 1,500 lbs.

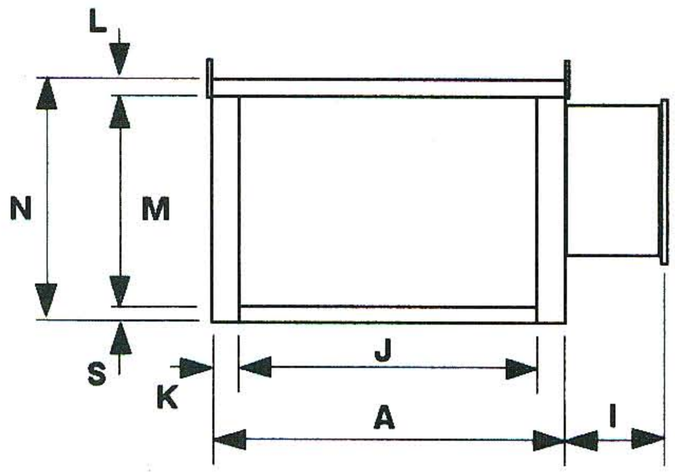
HORIZONTAL HEATER DATA



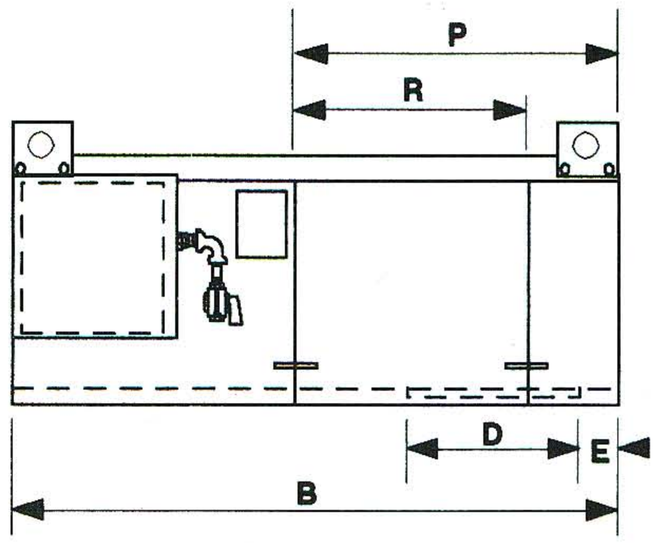
DISCHARGE VIEW



PLAN VIEW



INLET VIEW



SIDE VIEW

CABINET SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N
B-I	44.5	92	22	19	11	11.25	38	3.25	12	31.5	6.5	1.75	28.5	32
B-II	56	116	31.5	31.5	14	12.25	50	3	12	50	3	1.75	52.25	56
B-III	68	116	36.5	36.5	17	15.75	62	3	17	60	4	3.25	42.5	60.25

CABINET SIZE	P	R	S	T	U	V	W
B-I	47.75	34.75	1.75	56.5	3	10	3
B-II	71.5	39.5	2	68	4	†	†
B-III	68	28.5	14.5	84.5	4	24	3

All dimensions are in inches.

†CFM	V	W
10,000	7.5	16
12,000	9	14.5
14,000	10.5	13
16,000	12	11.5
18,000	13.5	10
20,000	15	8.5
22,500	19	4.5
24,000	19	4.5

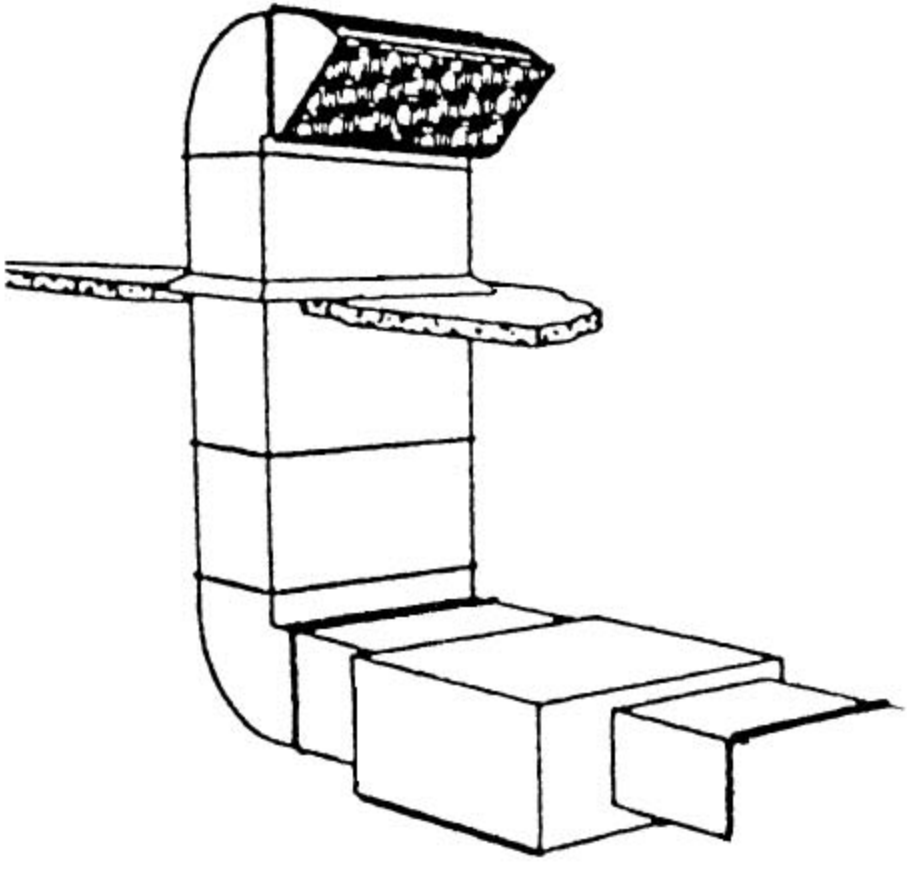
STANDARD FEATURES

- Enclosed, weatherized cabinet of heavy duty, corrosion-resistant galvanized steel
- Alkyd enamel coating, designed specifically for outdoor use
- Sturdy integral frame
- Maxitrol modulating valve
- 25:1 turndown ratio
- FM-approvable manifold
- Solid-state fuel modulation for immediate response
- Direct-spark ignition for fuel savings
- Weather-proof, fusible disconnect
- Double-width, double inlet, forward-curved centrifugal blower
- Variable-pitch drive sheave
- All-control transformers
- Ultra-violet (UV) scanner
- Two (2) manual gas shut-offs
- Fluid-power safety shut-off valves
- 3-phase O.D.P. motors
- All controls UL, CSA or AGA listed
- Pre-piped and pre-wired for quick & easy single-connection installation

UniCure

SPRAYBOOTHS

104 Spence Lane
Nashville, Tennessee 37210
1-800-868-3033
(615) 889-3330 TN



UniCure

Spraybooths
104 Spence Lane
Nashville, TN 37210
1-800-868-3033
(615) 889-3330 – TN

UniCure Exhaust Fans

1. Belt driven tubeaxial fans with spark resistant aluminum blades.

2. Tubeaxial fans designed for use in industrial ventilation systems to exhaust paint spraybooths, cleaning tanks, and mixing rooms.

3. Designed to operate in any position.

4. Precision balanced spark resistant aluminum fan blades.

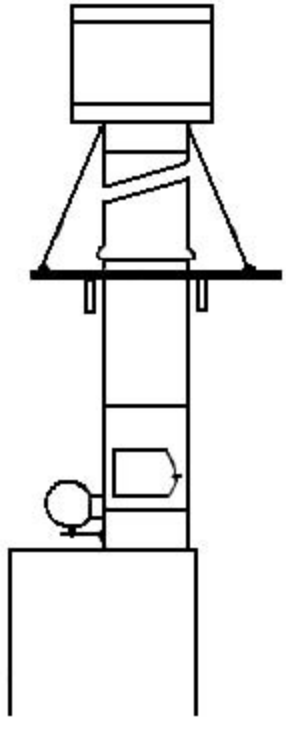
5. Maximum operating temperature of 200°F.

6. Dayton Electronic Manufacturing Company certifies that the tubeaxial fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

UniCure

SPRAYBOOTHS
104 Spence Lane
Nashville, Tennessee 37210
1-800-868-3033
(615) 889-3330 TN

Dry booth - top exhaust



PAINT ARRESTANCE FILTER TEST REPORT

Spray Removal Efficiency & Paint Holding Capacity

Tested for:	**Superior Glass Fibers**
Filter Mfr.:	**Superior**
Filter Name/Model:	**PA-22**
Report#./Test#	**R 026 T 061**
Report Date:	**Oct. 7, 1996**

Test Information

FILTER DESCRIPTION:
white fiberglass w/ thin blue fiberglass backing layer

PAINT DESCRIPTION:
High Solids Baking Enamel (S.W. #1 Permaclad 2400, red)

PAINT SPRAY METHOD:
Conventional Air Gun at 40 PSI

SPRAY FEED RATE:
141 gr./min. **130** cc./min.

AIR VELOCITY:
150 FPM

Test Results

INITIAL PRESSURE DROP of Clean Test Filter
0.04 in. water

FINAL PRESSURE DROP of Loaded Test Filter
0.51 in. water

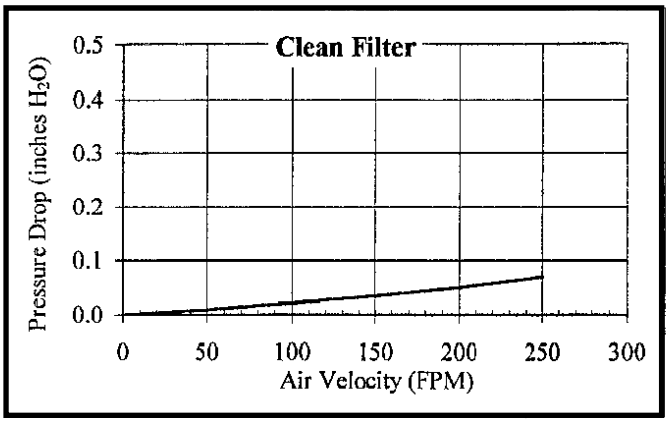
WEIGHT GAIN on TEST FILTER & Test Frame Trough
3275 grams

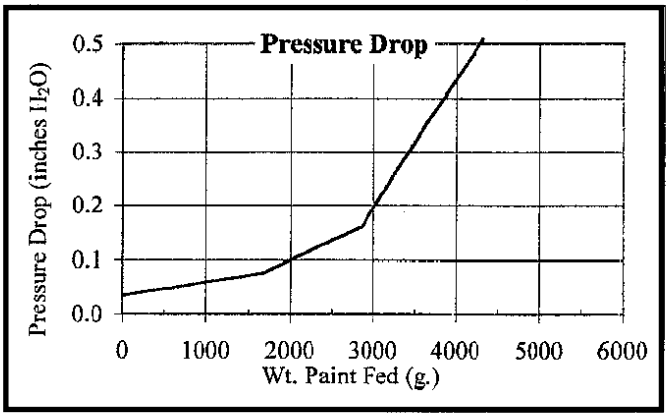
PAINT HOLDING CAPACITY of TEST FILTER
2185 grams = **4.8** lbs.

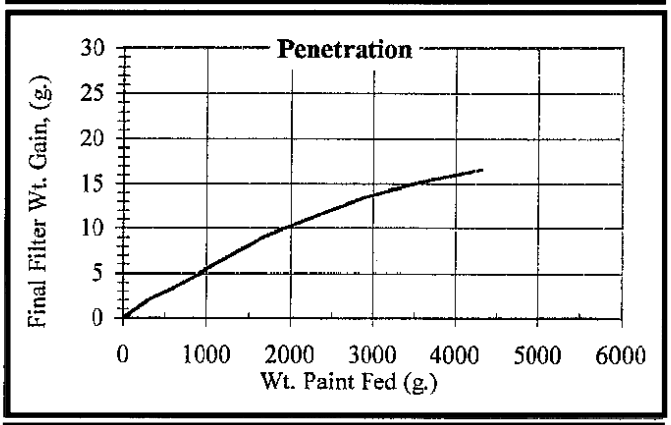
PAINT RUN-OFF
1159 grams

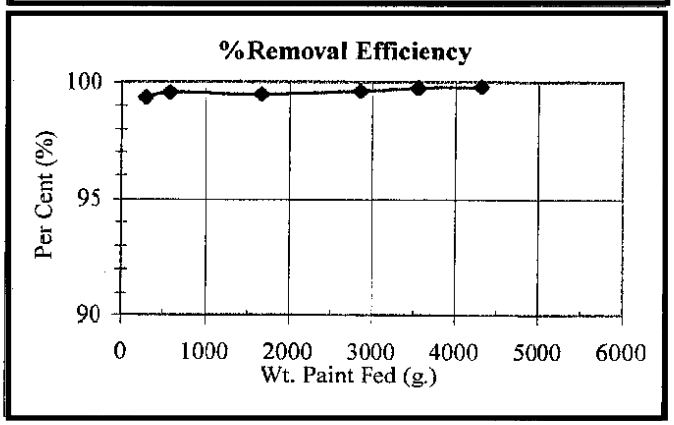
WEIGHT GAIN - FINAL FILTER
16.6 grams = **PENETRATION**

AVERAGE REMOVAL EFFICIENCY of TEST FILTER
99.5 %









Test Engineer: P. Tuzinski
Supervising Engineer: K. C. Kwok, Ph.D.

LMS Technologies, Inc.
P.O. Box 24185; Edina, MN 55424
Tel.: (612) 832-5353
Fax: (612) 832-5354

SPRAYBOOTHS
104 Spence Lane
Nashville, TN 37210
1-800-868-3033 (615) 889-3330
Fax # (615) 889-6773
www.spraybooths.com

LIGHTING CODE COMPLIANCE

The light fixtures provided with a UniCure Spraybooth are designed to meet or exceed NFPA33 requirements. Internal lighting is provided by exterior mounted light fixtures which are double protected from flammable vapor exposure. First they are protected by the installation of a gasketed glass enclosure. The glass is ¼" clear tempered rated and is sealed from the interior with an approved caulk sealant. Second by the downdraft motion of the air that will exhaust all overspray produced in the chamber vertically down and away from the light fixtures.

The provided light fixtures are also ETL listed and approved for spraybooth application. A copy of the actual fixture label is below.

Bond | Protect | Beautify

With our manual guns, automatic and robotic applicators, supplied by our wide range of pumps & machines for fluid handling, dosing, mixing & dispensing.

SAMES KREMLIN provides industrial solutions for production increase, quality improvement, material & cost savings.

We are designers and manufacturers of process equipment that is divided into 6 ranges:

Airspray: Since1925, we have been an Airspray manufacturer bringing you the very best in finishing.

Airmix®: Creator of Airmix® Technology since 1975, we provide the perfect mix between quality and productivity.

Airless: We provide premium Airless Products for finishers with demanding applications.

REXSON Dispense: Pumping beyond possible, dispensing precisely.

Electrostatic liquid: expertise for high finishing quality & efficiency.

Powder: Powder coating solutions for the highest Productivity since 1960.

FIND YOUR LOCAL CONTACT
BY FLASHCODE:

www.sames-kremlin.com

DISTRIBUTED BY:
Pro Wood Finishes
14622 Southlawn Lane
Rockville MD 20850
Ph: (301) 424-3033

SAMES KREMLIN

Apply your Skills

DISTRIBUTED BY:
Pro Wood Finishes
14622 Southlawn Lane
Rockville MD 20850
Ph: (301) 424-3033

SAMES KREMLIN

AIRMIX®

XCITE™

120, 200 & 400

- **High transfer efficiency (up to 86%*)**
- **Unsurpassed atomization quality**
- **True extension of your arm**

* ± 2% according to EN 13966-1

Related Technologies

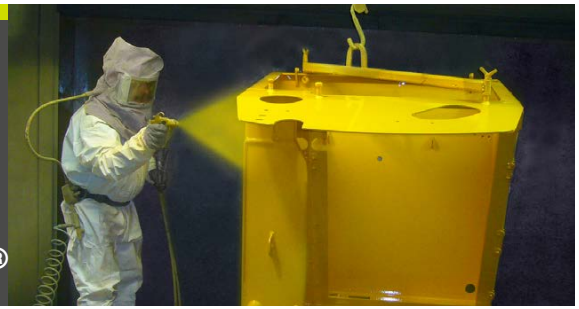
AIRMIX®

Apply your Skills

www.sames-kremlin.com

XCITE™ 120, 200 & 400

AIRMIX®



TECHNICAL DATA

Body of the gun	Forged aluminium
Fluid pressure range (bar)	120 - 200 -400
Maximum air inlet pressure (bar)	6
Recommended atomization air pressure (bar)	0.7 - 3
Fluid output (lt/mn)	Up to 2 lt/mn depending on material viscosity
Weight (g)	498 (without fluid swivel fitting) / 564 (with fluid swivel fitting)
Maximum fluid temperature (°C)	60
Air consumption (m3/h)	3.2 - 7.5
Wetted parts	Stainless steel, PTFE, carbide
Filter (fitted on fluid tube)	#6 (85 mesh / 168µ)

AIRMIX® TECHNOLOGY

Leading spray technology since 1975, AIRMIX® technology was invented by SAMES KREMLIN to reduce paint consumption and cost of ownership to increase productivity, improve working conditions and preserve the environment.
Continuously improved over the past 35 years, AIRMIX® is today the most efficient non electrostatic spray technology providing up to 86% (± 2%) transfer efficiency.

The SAMES KREMLIN AIRMIX® gun became the reference in the wood market soon after it was launched. Progressively it grew to a big success in other highly demanding markets such as railway, aerospace, renewable energies, rolling equipment or machine tools, due to its unsurpassed finish quality, reliability and high ergonomics.

MATERIAL HANDLED

One component or two component solvent or water-based materials, high solids, varnishes, lacquers, polyurethanes, stains, solvent or water-based adhesives.

RECOMMENDED MARKETS

FURNITURE

KITCHEN AND BATHROOM

RENEWABLE ENERGIES

ROLLING EQUIPMENT

CUSTOMER BENEFITS

- Excellent atomization quality and homogeneity of the coating film
- Lower fluid pressure versus similar technology generating less overspray
- Atomization power to allow spraying a large range of materials
- Reduced coating consumption and energy saving
- Improved ergonomics for reduced R.S.I (repetitive strain injuries)

INCREASED PRODUCTIVITY

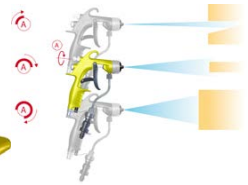
The VX24 AIRMIX® aircap with «EZ adjust» function allows the precise positioning of the aircap (easy to use)

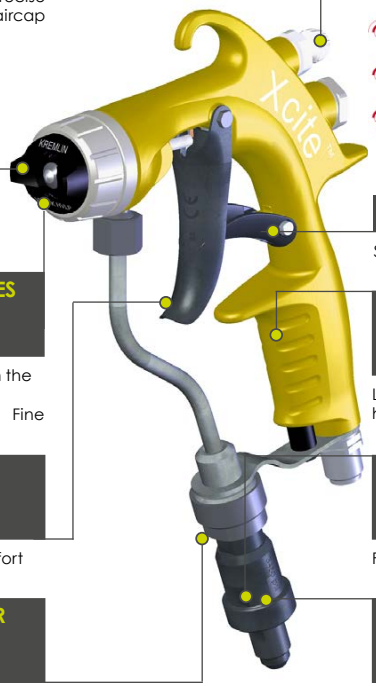
UNSURPASSED FINISHING QUALITY

Vx24 AIRMIX® aircap and reliable design

IDEAL FOR SPRAYING COMPLEX SHAPE PARTS

Accurate fan width adjusting knob





OPERATOR SAFETY

Safety trigger lock

ACCOMMODATES ALL TYPES OF PRODUCTS

- Widest range of tips in the world
- Fine Finish or Xtra™ Fine Finish

VERY COMFORTABLE GRIP AND USE

Lighter gun and redesigned handle

GREAT COMFORT OF USE

Reduced trigger pull effort

BETTER MANEUVERABILITY

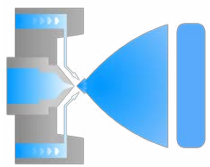
Fluid swivel fitting

OPTIMIZED FOR WATER BASED PRODUCTS

Stainless steel product passage

CONSISTENT TRANSFER EFFICIENCY

Specially designed built-in filter minimizing pressure loss for a wide range of material viscosities



Xcite™ with original AIRMIX® technology: the tulip fan shape guarantees a perfectly homogeneous coating film and an increased transfer efficiency.

Other systems create overspray, coarse particles and an uneven film build, while the excessive turbulence increases the airborne product and creates pollution.

SAMES KREMLIN

www.sames-kremlin.com

XCITE™ AIRMIX® MANUAL SPRAY GUN

The Xcite™ Airmix® manual spray gun delivers high level performance with unsurpassed finish quality. It is available in 3 pressure ranges: 120-200-400bar (1740-2900-5400psi) to meet every application.

- **Product savings & environmental protection due to high transfer efficiency (up to 86%)**
- **Unsurpassed atomization quality of spraying**
- **Ergonomically designed**

► **Technical manual**

Where to buy?



RELATED VIDEOS

Xcite™ manual spraygun the star of Airmix®

RELATED PRODUCTS

Airmix® Spray Tip - Fine Finish

Airmix® spray tip is dedicated to automatic range and manual Xcite™ gun . Recommended for solvent based paint.

Associated informations

DESCRIPTION

- **Product savings & environmental protection due to high transfer efficiency (up to 86%)**
- **Unsurpassed atomization quality of spraying**
- **Ergonomically designed**

► **Technical manual**

Performance

Consistent transfer efficiency delivered by a uniquely designed built-in filter minimizing pressure loss for a wide range of material viscosities
VX24 Airmix® aircap has a reliable design and delivers unsurpassed finishing quality
Spray many materials, including water-based materials, with the Xtra™ Fine Finish tips (pre-atomization increasing the quality of atomization)
The Xcite™ 400 version is recommended to apply single adhesive and sealants, MS polymers, adhesives, grease and a large range of materials requiring an atomization pressure higher than 200 bar (2900 psi)

Productivity

The VX24 Airmix® aircap with EZ adjust function allows precise positioning of the aircap making it easy to use
Ideal for spraying complex shaped parts due to accurate fan width adjusting knob
Trigger lock for guaranteed operator safety
Lighter gun with redesigned handle & comfortable grip
Choice of a fluid swivel fitting for better maneuverability upon version
Aircap protection for 400 bar (5400 psi) version
Accommodates all types of materials - widest range of tips available (Fine Finish or Xtra™ Fine Finish tips)

Sustainability

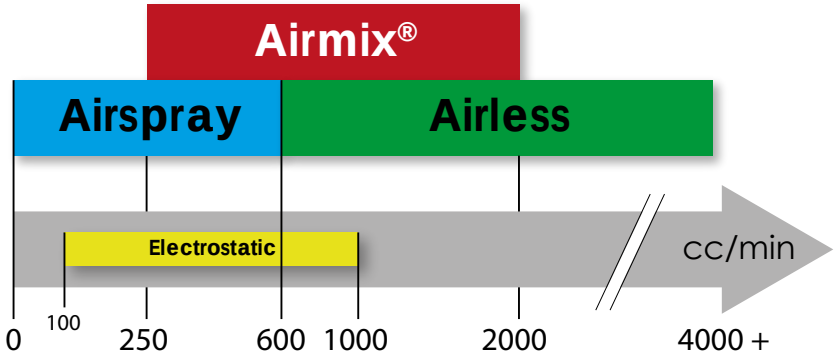
Anodized body for excellent resistance to wear
Stainless steel spring to prevent corrosion
Cartridge with rulon seal prevents leakage
Double tip seal to prevent paint return on the air circuit
Stainless steel product passage on manual spray gun optimized for water-based products
A manual spray gun body forged in aluminum with wetted parts in stainless steel, PTFE & carbide for long term use

Airmix® spray technology

The Airmix® Technology was created in 1975 by **SAMES KREMLIN**. Airmix® is an intermediate spray technology that combines the advantages of both conventional and Airless technology & is the industry standard for medium pressure atomization today.
A world-recognized technology that had largely been successful, often copied but without equal...

This concept was such a great success for a large number of users that it launched Airmix® from a commun technology to a well-known and reliable first category industry standard used all over the world in many business areas where high quality finish is a must.

The place of the Airmix® technology inside coatings technologies:



Recommended range of use

Airmix® is a unique medium pressure spraying technology in between Airspray (known for high finishing quality with limited flow rate ideally under 400cc/min) & Airless (known as efficient high flow solution but without quality finishing).

Airmix® gives a high finishing quality & uniform film build for high productivity on paint flow rates from 250 to 2000 cc/min.

In order to do this, Airmix® associates middle pressure spraying and an indirect addition of atomization air (at a very low pressure), which leads to outstanding fan control.

VOLZ 600G

CEILING DIFFUSION MEDIA FOR DOWNDRAFT BOOTHS

Volz 600G offers affordable and superior finishing results.

A.J.Dralle's ceiling diffusion series made with Volz V600G media is specifically engineered to meet the finer filtration requirements within downdraft spray booths. The Volz V600G is composed of graduated density polyester. It contains no silicone or other lacquer harming substances. Tackifier throughout the filter helps achieve high dust holding capacity while the polyester-textile on the clean air side allows the V600G the highest structural stability. Used throughout the world in some of the most demanding and prestigious automotive manufacturing facilities, Volz V600G produces superior finishing results while maintaining affordability.

VERSATILE APPLICATION USES

- Automotive
- Industrial
- Ceiling diffusion

Available in pads, blankets, rolls, panels and links.

SPECIFICATIONS

- 100% Efficiency on 10 micron particles and larger
- Initial Resistance: .295" W. G. @ 100 FPM
- MERV 9 @ 100 FPM
- F1 Fire Rating DIN 53438-3
- Maximum temperature: 100º C/ 212º F

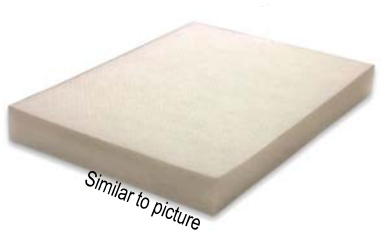
Test results based on ASHRAE 52.2 standards

A.J. DRALLE, INC.
1830 West Mound Road • Rockdale, Illinois 60436 • info@ajdralle.net
(800) 325-5339 • (815) 730-0505 • Fax (815) 730-0565

MADE IN THE USA

Technical data sheet

VOLZ Fine filtration mats
M5 V600G



Technical data:

Product	Filter mat
Medium	Polyester
Colour media	White
Dimension (width x lenght) [m]	1 x 1
Material thickness approx. [mm]	25
Surface weight approx. [g/m²]	650
Filter area [m²]	1
Filter class	M5
Recommended nominal air flow [m³/h]	900
Air velocity [m/s]	0.25
Initial pressure drop [Pa] *	37
Recommended final pressure drop [Pa]	450
Average arrestance [%]	≥ 90
Average efficiency (0,4 µm) [%]	≥ 40 < 60
Maximum humidity resistance [%]	100
Max. operating temperature [°C]	80
Labelling	Filter class, type test

* flat sheet tested

Characteristics of test:

Classification	EN 779:2012
Fire protection	DIN 53438 - 3 (F1)

Product Benefits:

- The filter media is compressed towards clean air side and takes full depth of fibrous web for dust adsorption	- Higher dust holding capacity by additional impregnation with dust adhesive at V500S, V560 G, V600G and V5micron.
- Contains no silicone or other lacquer harming substances	- Polyester-textile on clean air side gives V560G, V600G and V5micron a higher stability
- Also available as filter tube or sewn filter bag	

North America

Programmed System Technique (PST)
Topcoat
03/19/2021

LV151 DTM Topcoat

LV151 DTM Topcoat is a two pack Direct-To-Metal topcoat finish for commercial vehicles and industrial equipment. LV151 DTM Topcoat is a 3.5 pound per gallon VOC compliant direct to metal finish designed for chassis and trailers. It is also a versatile finish available in 90, 70, 50 and 30 gloss unit formulas. The product is designed for conventional, plural component, and airless application.

Safety Considerations

- Use suitable personal protection.
- AkzoNobel recommends the use of a fresh air supply respirator.
- Refer to the product Safety Data Sheet (SDS) for more complete safety information.

Suitable Surfaces

• Steel	– Blasted to white metal
• Steel, Cold or Hot Rolled	– P80 to P120 grit dry
• Steel, Hot Dip Galvanized	– P180 grit dry or red scuff pad
• Stainless Steel	– P180 grit dry
• Aluminum 2024 T3	– P220 grit dry
• Aluminum 5052 H32	– P220 grit dry
• Aluminum 7075 T6	– P220 grit dry

STICK #23

Mix	By Volume
5	LV151 DTM ready mix color
1	LV151 DTM Hardener

✓ Mix well to combine components.

Spray-Gun Set-Up

- HVLP – 1.9mm
- Compliant – 1.8mm
- Pressure Feed – 1.4mm

Application Settings

- HVLP – 10 psi (<0.7 bar) at cap maximum.
- Consult manufacturer specifications.
- 12oz. per minute.

Application

- Apply one (1) to two (2) single flowing coats with no flash between coats.

Flash Between Coats at 70°F (21°C)

- None required.

Flash at 70°F (21°C) Before Force Drying

- 15 minutes.

Air Drying at 70°F (21°C)

- Dry to Handle in 4-½ hours

Dependent on film weight.

Force Drying at 140°F (60°C)

- Dry to Handle in 45 minutes

Read complete TDS for detailed product information.

LV151 DTM Topcoat

FOR PROFESSIONAL USE WITH SUITABLE HSE EQUIPMENT

Description

LV151 DTM Topcoat is a two pack Direct-To-Metal topcoat finish for commercial vehicles and industrial equipment. LV151 DTM Topcoat is a 3.5 pound per gallon VOC compliant direct to metal finish designed for chassis and trailers. It is also a versatile finish available in 90, 70, 50 and 30 gloss unit formulas. The product is designed for conventional, plural component, and airless application.

Suitable Substrates

• Existing finishes	– With AkzoNobel approval*
• Steel	– Blasted to white metal
• Steel, Cold or Hot Rolled	– P80 to P120 grit dry
• Steel, Hot Dip Galvanized	– P180 grit dry or red scuff pad
• Stainless Steel	– P180 grit dry
• Aluminum 2024 T3	– P220 grit dry
• Aluminum 5052 H32	– P220 grit dry
• Aluminum 7075 T6	– P220 grit dry
• Autoprep Pretreatment Wipes	
• Henkel Bonderite 1000 Pretreatment	
• Henkel 457 followed by 5700	

NOTE: *Any other chemical cleaners, pretreatments, and/or existing finishes must be pre-approved by AkzoNobel.

Products and Additives

Product	• BT LV650 Toners	– Mixed to prescribed color formula
	• LV151 DTM Converter LG (B151LG)	– Item #555899
	• LV151 DTM Converter MG (B151MG)	– Item #555898
	• LV151 DTM Converter HG (B151HG)	– Item #585023
Hardeners	• LV151 DTM Hardener	– Item #555930
Additives	• LV151 DTM Air Dry Additive	– Item #564241

Basic Raw Materials

• BT LV650 Toners	– Acrylic/polyester resins and pigments
• LV151 DTM Converters	– Acrylic/polyester resins
• LV151 DTM Hardener	– Poly-isocyanate resin
• LV151 DTM Airdry Additive	– Acrylic resin/reactive solvent and catalyst

LV151 DTM Topcoat

FOR PROFESSIONAL USE WITH SUITABLE HSE EQUIPMENT

Substrate Preparation

Pre-Cleaning

- Clean with M600 Surface Cleaner, Autoprep UltraPrep (VOC compliant) surface cleaner or equivalent.

Sanding & Surface Preparation

Substrate	Preparation	Additional Notes
Existing Finishes	Consult AkzoNobel.*	AkzoNobel approval required.*
Steel	Blasted to clean white appearance.	
Cold Rolled Steel	#P80 – P120 Dry	
Hot Rolled Steel	#P80 – P120 Dry	Mil scale removed.
Hot Dip-Galvanized Steel	#P180 Dry or a red scuff pad	
Aluminum	#P220 Dry	
AutoPrep Pre-Treatment	Per AutoPrep Pre-Treatment TDS.	
Henkel Bonderite 1000 Pre-Treatment	Per Henkel Process.	Per Henkel Process.
Henkel Deoxidine 457 followed by Henkel Alodine 5700	Per Henkel Process.	Per Henkel Process.

NOTE: *Any other chemical cleaners, pretreatments, and/or existing finishes must be pre-approved by AkzoNobel.

Final Cleaning, Sanded Surfaces – Prior to Paint Application

- Clean with M600 Surface Cleaner, Autoprep UltraPrep (VOC compliant) surface cleaner or equivalent.

Product Preparation

Agitation

- Because LV151 is high solids paint it needs to be agitated before use.
- Stir or shake vigorously before each use.

Mixing – Formulas

- LV151 DTM is available in 90, 70, 50 and 30 gloss unit formulas.
- These can be accessed in MIXIT or the Color Manager mixing program.

Note: Due to color, application and environmental factors, gloss levels may vary by 10 gloss units.

Mixing – By Volume


STICK #23

Mix	Normal Temperatures
5	Parts LV151 DTM ready mix color
1	Parts LV151 Hardener

✓ Mix well to combine components.

- There is an air-dry additive available for LV151 DTM Topcoat. It is designed for use in cooler temperatures to promote curing.

Mix	Air Dry Mixture
100	Part LV151 DTM ready mix color
2.5-5	Parts LV151 DTM Air Dry Additive

✓ Mix well to combine components.

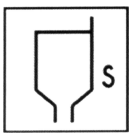
Then harden the mixture as follows –


STICK #23

5	Parts LV151 DTM ready mix color + LV151 DTM Air Dry Additive
1	Parts LV151 Hardener

✓ Mix well to combine components.

Viscosity – Ready to Spray



N/A

- LV151 has a thixotropic nature and cannot be measured by viscosity cup.

Pot-Life When Mixed

Product Mix	70°F (21°C)
• LV151 mixed and ready to spray	– 1 to 1.25 hours
• LV151 including Air Dry Additive and ready to spray	– 30 to 45 minutes

Spray Gun Set-Up

Consult spray gun instructions for specific spray gun pressure specifications.

Spray Gun	Fluid Tip	Application Pressure
HVLP Gravity Fed	1.9mm	<10 psi (<0.7 bar) at cap.
Compliant Gravity Fed	1.8mm	psi per spray gun manufacturer.
Pressure Fed	1.4mm	12oz. per minute - psi per spray gun manufacturer.
Graco Air Assisted Airless	4.11 – 4.15 5.11 – 5.15	Material pressure 1160-1958 psi (80-135 bar). Atomizing pressure 22-51 psi (1.5-3.5 bar).

LV151 DTM Topcoat

FOR PROFESSIONAL USE WITH SUITABLE HSE EQUIPMENT

Application

- Apply one (1) to two (2) single flowing coats.

Flash Drying at 70°F (21°C)

Between Coats:
- There is no flash between coats required.

Before Forced Drying:
- 15 minutes.

Drying / Curing Time

Temperature	59ºF (15ºC) (w/ Air Dry Additive)	70ºF (21ºC)	104ºF (40ºC)	140ºF (60ºC)
• Dust Free	1-½ hours	2-½ hours	1-¼ hours	30 minutes
• Dry to Handle	1-¾ hours	4-½ hours	1-½ hours	45 minutes

✓ Drying times are stated at recommended application method, film thickness and object temperature.

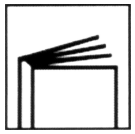
Film Thickness – Using Suitable Application

- 1-2 Coats will achieve a thickness of 3.0 – 5.5mils (70 - 140µm).
- The minimum total thickness required is 3.0mils (70µm) for adequate protection and appearance.

Theoretical Coverage

- Ready for use mixture at 1mil dry film thickness with the recommended application the theoretical material usage is ±802 feet^2/gallon (19.7m^2/liter).
- Actual coverage is dependent on many factors. These may include; the shape of the object, surface smoothness, application technique and other application variables.

Recoating



- LV151 DTM may be recoated with itself after a 30-minute flash (at 70°F (21°C)) and up to 24 hours. After 24 hours it must be sanded before reapplication.
- At the time of publication other paint materials suitable over LV151 have not been determined.

Cleaning of Equipment

- Clean equipment following local and federal regulations. In compliant localities, use a VOC compliant high-quality solvent borne gun cleaner. For national rule regions, a use high quality lacquer thinner.
- For efficient cleaning and less evaporated cleaning solvents, an enclosed automatic gun cleaning machine is suggested.

VOC / Regulatory Information

Product	VOC Pounds per Gallon	VOC Grams per Liter
• LV151 Topcoat (Ready to Spray)	<3.50	<420

Product Storage

Stock unopened or opened products in approved closed containers with proper labeling. Store in moderate temperatures between 40°F - 95°F (5°C – 35°C). Avoid too much temperature fluctuation. Optimum storage temperature is approximately 70°F (21°C)

- Autocoat BT Toners – 2 Years
- LV151 DTM Converter – 1 Year
- LV151 DTM Ready Mixed – 1 Year
- LV151 DTM Airdry Additive – 1 Year
- LV151 DTM Hardener – 1 Year

AkzoNobel Inc, North America

Address: 1845 Maxwell Street – Troy, MI USA

Telephone: 800.618.1010

Head Office

AkzoNobel B.V., PO Box 3 2170 BA Sassenheim, The Netherlands. www.sikkenscr.com

sikkens
Autocoat BT

Autocoat BT LV 151 DTM

FOR PROFESSIONAL USE ONLY

Description
Two pack VOC compliant Direct To Metal topcoat finish for commercial vehicles and industrial equipment. The product is designed for plural component systems and airless application. The target use for this product is refinishing and refurbish of existing vehicles and the painting of newly build commercial vehicles and trailers.

100	LV 151 DTM
20	LV 151 Hardener

48

	Fluid tip:	
Air Assisted Airmix:	4.11 – 4.15 5.11 – 5.15	80 – 135 Bar material pressure 1.5 – 3.5 Bar atomization pressure
Pressure feed	1.1 mm	4 – 4.5 Bar atomization pressure 300 – 350 ml paint flow

1-2 x 1 coat

Drying times:

4.5 hours at 20°C	45 minutes at 60°C

Use suitable respiratory protection
Akzo Nobel Car Refinishes recommends the use of a fresh air supply respirator

Read complete TDS for detailed product information

Autocoat BT LV 151 DTM

FOR PROFESSIONAL USE ONLY

Description:
Two pack VOC compliant Direct To Metal topcoat finish for commercial vehicles and industrial equipment. The product is designed for plural component systems and airless application. The target use for this product is refinishing and refurbish of existing vehicles and the painting of newly build commercial vehicles and trailers.

Product and Additives:

Autocoat BT toners:	8099-702
LV 151 Convertor LG:	1507-001
LV 151 Convertor MG:	1507-002
LV 151 DTM RM:	1507-003
LV 151 Hardener:	1507-104
LV 151 DTM Air Dry Additive:	1519-503

Basic Raw Materials:

LV 151 DTM	Acrylic/polyester resins
LV 151 Hardener	Poly-isocyanate resin
LV 151 DTM Air Dry Additive	Acrylic resin / reactive diluant and catalyst

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Suitable Substrates:
- Steel (Blasted)
- Steel (Sanded)
- Galvanized (hot dipped)
- Aluminum, except grade 6061
- Stainless steel
- LV 251 Primer UHS

Surface Preparation:
- Steel: Blast clean, Sa 2.5 according ISO12944-4 *or*
  Clean with BT 800 Degreaser or LV 350 Antistatic Silicon Remover and dry sand with P120 grit
- Galvanized: Clean with BT 800 Degreaser or LV 350 Antistatic Silicon Remover and dry sand with P120 grit
- "hard" aluminum: Clean with OTO Quick Degreaser or 800 Degreaser and dry sand with P120 and P240 grit.
- "soft" aluminum: Clean with OTO Quick Degreaser or 800 Degreaser and dry sand with P240 and P360/P400 grit.
- Stainless Steel: Clean with BT 800 Degreaser or LV 350 Antistatic Silicon Remover and dry sand with P120 grit

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Autocoat BT LV 151 DTM

FOR PROFESSIONAL USE ONLY

Mixing Ratio by Volume:

Standard system
100 parts of LV 151 DTM
20 parts of LV 151 Hardener
Mixing stick 48

Low Temperature system
100 parts of LV 151 DTM
5 parts of LV 151 DTM Air Dry Additive
20 parts of LV 151 Hardener
Mixing stick 48

Spraying Viscosity:
Thixotropic.

Potlife:

Standard system:	60 – 75 min at 20°C.
Low Temperature system:	30 – 45 min at 20°C.

Spray gun fluid tip and working pressure:

Spray Equipment:	Air Assisted Airmix	Airless
Fluid tip:	4.11 – 4.15 / 5.11 – 5.15	0.013”
Working pressure:	80 – 135 bar material pressure	120-180 bar
Air assistance:	1.5-3.5 bar atomization pressure	

Spray Equipment:	Pressure pot
Fluid tip:	1.1 mm
Working pressure:	0.8 - 1 bar
Atomization Air:	4 – 4.5 bar *(depending on length hose)*
Paintflow:	300 – 350 ml/min

Spray Equipment:	Gravity feed
Fluid tip:	1.8-1.9 mm
Working pressure:	0.7 - 2 bar

* *For detailed information check spray gun supplier specification*

Autocoat BT LV 151 DTM

FOR PROFESSIONAL USE ONLY

Application Process:
Apply 1 to 2 single flowing coats with no flash between coats

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Film Thickness:
70 µm per coat

Theoretical coverage:	**m²/liter**
Ready for use mixture at 1 µm dry film thickness	± 500

Note: The practical cover rate depends on many factors e.g. shape of the object, roughness of the surface, application method and application circumstances.

Cleaning of Equipment:
Use Sikkens Solvent.

Drying times:

	15°C	**20°C**	**40°C**	**60°C**
Dust free		2.5 hrs	75 min	30 min
Dry to handle		4.5 hrs	90 min	45 min

Recoatable with:

Autocoat BT LV 151 DTM
Autocoat BT LV 853 Clear

Minimum recoat time	30 minutes at 20°C
Maximum recoat time	24 hours at 20°C

When these drying times are exceeded, sanding is required

VOC:
2004/42/IIB(d)(420)420
The EU VOC limit value for this product (product category: IIB.D) in ready to use form is max 420 g/liter. The VOC content of this product in ready to use form is max 420 g/liter.

Packaging:

Autocoat BT toner:	gallon pail
LV 151 Convertor LG:	gallon pail
LV 151 Convertor MG:	gallon pail
BT LV 151 DTM RM:	10 liter in 10-litre pail
BT LV 151 Hardener:	5 liter in 5-litre pail
BT LV 151 DTM Air Dry Additive:	1 litre

Autocoat BT LV 151 DTM

FOR PROFESSIONAL USE ONLY

Product Storage:
Product shelf-life is determined when products are stored unopened at 20°C.
Avoid extreme temperature fluctuations.

Minimum storage temperature:	5°C
Maximum storage temperature:	35°C

Shelflife:

Autocoat BT Toners	3 years
LV 151 DTM Convertor	1 year
LV 151 DTM ready mixed	1 year
LV 151 Hardener	1 year
LV 151 Air Dry Additive	1 year

HEALTH & SAFETY DATA regarding Autocoat BT LV 151 DTM 1507-003

For professional use only. (See **M**aterial **S**afety **D**ata **S**heet).

See text on the label of this product.

The user of this product is required to comply with the national statutory regulations for health and safety at work and waste disposal.

Akzo Nobel Coatings LTD
Address: Unit 2B, Didcot Park
Churchward, Southmead Industrial Estate
Didcot, Oxfordshire, OX11 7HB
Tel: 00 44 (0)1235 862226

Head Office
Akzo Nobel Car Refinishes B.V., PO Box 3 2170 BA Sassenheim, The Netherlands. www.sikkenscr.com

SAFETY DATA SHEET

Autocoat BT LV151 DTM NA FLNA42241 White Layer 1 (Fitzgerald Trailer White) OEM

Section 1. Identification

GHS product identifier : Autocoat BT LV151 DTM NA FLNA42241 White Layer 1 (Fitzgerald Trailer White) OEM

SDS code : 067900

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Industrial use

Uses advised against
All other uses

Manufacturer : Akzo Nobel Coatings, Inc.
1845 Maxwell
Troy, MI, 48084
USA
(800) 618-1010

Akzo Nobel Coatings Ltd.
110 Woodbine Downs Blvd.
Unit #4 Etobicoke, Ontario
Canada M9W 5S6
+1 (800) 618-1010

Importer : Cía. Mexicana de Pinturas International
S.A. de C.V., Carretera Anillo Periférico,
No Ext 205, No Interior A, Colonia HDA S JOSE, Garcia, Garcia, CP 66000, Nuevo Leon.
RFC: ANA9510267C4

Emergency telephone number (with hours of operation) : CHEMTREC +1 (800) 424-9300 (Inside the US)
CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Warning

Hazard statements : Flammable liquid and vapor.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, sparks and hot surfaces. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Contaminated work clothing must not be allowed out of the workplace.

Response : In case of fire: Use water spray, dry chemical powder or carbon dioxide to extinguish. IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.

Storage : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national or international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
n-butyl acetate	≥25 - ≤50	123-86-4
titanium dioxide	≤10	13463-67-7
2-butoxyethyl acetate	≤10	112-07-2
ethyl 3-ethoxypropionate	≤10	763-69-9
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	≤3	41556-26-7
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	≤3	68909-20-6
Naphtha (petroleum), heavy alkylate	≤3	64741-65-7
1-methoxy-2-propanol	≤3	107-98-2
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	≤3	82919-37-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Section 4. First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Never use water for extinction.

Specific hazards arising from the chemical : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
n-butyl acetate	**NIOSH REL (United States, 10/2020).** STEL: 950 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 710 mg/m³ 10 hours. TWA: 150 ppm 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 710 mg/m³ 8 hours. TWA: 150 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 950 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 710 mg/m³ 8 hours.

Section 8. Exposure controls/personal protection

	TWA: 150 ppm 8 hours. **ACGIH TLV (United States, 1/2022). [Butyl acetates]** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
titanium dioxide	**OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours. Form: Total dust **OSHA PEL 1989 (United States, 3/1989).** TWA: 10 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States, 1/2022).** TWA: 2.5 mg/m³ 8 hours. Form: respirable fraction, finescale particles
2-butoxyethyl acetate	**NIOSH REL (United States, 10/2020).** TWA: 5 ppm 10 hours. TWA: 33 mg/m³ 10 hours. **ACGIH TLV (United States, 1/2022).** TWA: 20 ppm 8 hours.
ethyl 3-ethoxypropionate	None.
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	None.
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	None.
Naphtha (petroleum), heavy alkylate	None.
1-methoxy-2-propanol	**ACGIH TLV (United States, 1/2022).** STEL: 369 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 184 mg/m³ 8 hours. TWA: 50 ppm 8 hours. **NIOSH REL (United States, 10/2020).** STEL: 540 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 360 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 540 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 360 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	None.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : White.

Odor : Typical.

Odor threshold : Not available.

pH : Not applicable. [DIN EN 1262]

Melting/freezing point : Not available.

Boiling point : 45°C (113°F)

boiling range : Not available.

Flash point : Closed cup: 27°C (80.6°F) [Pensky-Martens]

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits

Upper: : Not determined.

Lower: : Not determined.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.076 [ISO 8130-2/-3]

Density : 8.98 lbs/gal 1.076 g/cm³ [DIN EN ISO 2811-1]

Solubility : Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Section 9. Physical and chemical properties

Viscosity : Kinematic: 279 mm^2/s (279 cSt) [DIN EN ISO 3219]

Weight Volatiles : 44.03% (w/w)

Volume Volatiles : 53.05 %(v/v)

Weight Solids : 55.97 %(w/w)

Volume Solids : 46.95 %(v/v)

Regulatory VOC : 4.0 lbs/gal 474 g/l minus water and exempt solvents

VOC Actual : 4.0 lbs/gal 474 g/l

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
n-butyl acetate	LC50 Inhalation Gas.	Rat	390 ppm	4 hours
	LC50 Inhalation Vapor	Mouse	6 g/m^3	2 hours
	LC50 Inhalation Vapor	Rat	390 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Intraperitoneal	Mouse	1230 mg/kg	-
	LD50 Oral	Guinea pig	4700 mg/kg	-
	LD50 Oral	Mouse	6 g/kg	-
	LD50 Oral	Rabbit	3200 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
2-butoxyethyl acetate	LD50 Dermal	Rabbit	1500 mg/kg	-
	LD50 Oral	Mouse	3200 mg/kg	-
	LD50 Oral	Rat	2400 mg/kg	-
ethyl 3-ethoxypropionate	LD50 Dermal	Rabbit	10 mL/kg	-
	LD50 Oral	Rat	5 g/kg	-
	LD50 Oral	Rat	3200 mg/kg	-
1-methoxy-2-propanol	LC50 Inhalation Gas.	Rat	10000 ppm	5 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Intraperitoneal	Rat	3720 mg/kg	-
	LD50 Intravenous	Mouse	5300 mg/kg	-
	LD50 Intravenous	Rabbit	1200 mg/kg	-
	LD50 Intravenous	Rat	4200 mg/kg	-
	LD50 Oral	Mouse	11700 mg/kg	-
	LD50 Oral	Rabbit	5700 mg/kg	-
	LD50 Oral	Rat	6600 mg/kg	-
	LD50 Subcutaneous	Rabbit	5 g/kg	-

Section 11. Toxicological information

	LD50 Subcutaneous	Rat	7800 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
2-butoxyethyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
ethyl 3-ethoxypropionate	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
1-methoxy-2-propanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
titanium dioxide	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	-	Narcotic effects
1-methoxy-2-propanol	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	Category 2	inhalation	-

Aspiration hazard

Name	Result
Naphtha (petroleum), heavy alkylate	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Section 11. Toxicological information

Skin contact : May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Dermal	13717.72 mg/kg
Inhalation (vapors)	137.18 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
n-butyl acetate	Acute LC50 32 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 62000 µg/l Fresh water	Fish - Danio rerio	96 hours
	Acute LC50 100000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 185000 µg/l Marine water	Fish - Menidia beryllina	96 hours
	Acute LC50 18000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
titanium dioxide	Acute EC50 19.3 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 27.8 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 35.306 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 13.4 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 11 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 3.6 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 15.9 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 13 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
	Acute LC50 >1000 mg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
n-butyl acetate	2.3	-	low
2-butoxyethyl acetate	1.51	-	low
ethyl 3-ethoxypropionate	1.47	-	low
1-methoxy-2-propanol	<1	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

Section 13. Disposal considerations

Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Marine Pollutant (s): bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Yes. The environmentally hazardous substance mark is not required.

Additional information

DOT Classification : **Reportable quantity** 18231.5 lbs / 8277.1 kg [2032.1 gal / 7692.5 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).
The marine pollutant mark is not required when transported by road or rail.

IMDG : **Emergency schedules** F-E, _S-E_
Viscous liquid exception This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 according to 2.3.2.5.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 5(a)2 final significant new use rules:** No products found.

TSCA 5(e) substance consent order: No products found.

TSCA 8(a) PAIR: 2-methoxy-1-methylethyl acetate; isopentyl acetate

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are active or exempted.

Clean Water Act (CWA) 307: Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31, N32]-, brominated chlorinated; ethylbenzene; toluene

Clean Water Act (CWA) 311: n-butyl acetate; xylene; Phosphoric acid; isopentyl acetate; ethylbenzene; 2-methylbutyl acetate; toluene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
No products were found.						

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Composition/information on ingredients

Name	%	Classification
n-butyl acetate	≥25 - ≤50	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
titanium dioxide	≤10	CARCINOGENICITY - Category 2
2-butoxyethyl acetate	≤10	ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4
ethyl 3-ethoxypropionate	≤10	FLAMMABLE LIQUIDS - Category 3
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	≤3	SKIN SENSITIZATION - Category 1
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	≤3	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Naphtha (petroleum), heavy alkylate; Low boiling point modified naphtha; [A complex combination of hydrocarbons produced by distillation of the reaction products of isobutane	≤3	ASPIRATION HAZARD - Category 1

Section 15. Regulatory information

with monoolefinic hydrocarbons usually ranging in carbon numbers from C3 to C5. It consists of predominantly branched chain saturated hydrocarbons having carbon numbers predominantly in the range of C9 through C12 and boiling in the range of approximately 150°C to 220°C (302°F to 428°F).]		
1-methoxy-2-propanol	≤3	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	≤3	SKIN SENSITIZATION - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	2-butoxyethyl acetate	112-07-2	≤10
Supplier notification	2-butoxyethyl acetate	112-07-2	≤10

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: BUTYL ACETATE; TITANIUM DIOXIDE; PROPYLENE GLYCOL METHYL ETHER

New York : The following components are listed: Butyl acetate

New Jersey : The following components are listed: n-BUTYL ACETATE; TITANIUM DIOXIDE; 2-BUTOXYETHYL ACETATE; PROPYLENE GLYCOL MONOMETHYL ETHER

Pennsylvania : The following components are listed: ACETIC ACID, BUTYL ESTER; TITANIUM OXIDE; 2-PROPANOL, 1-METHOXY-

California Prop. 65

Ingredient name	No significant risk level	Maximum acceptable dosage level
titanium dioxide	-	-
2-ethylhexyl acrylate	-	-
carbon black, respirable powder	-	-
cumene	-	-
ethylbenzene	Yes.	-
toluene	-	Yes.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe :

Japan : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined

New Zealand : All components are listed or exempted.

Philippines : At least one component is not listed.

Republic of Korea : All components are listed or exempted.

Section 15. Regulatory information

Taiwan : All components are listed or exempted.

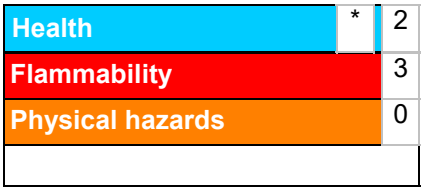
Thailand : Not determined.

Turkey : Not determined.

Viet Nam : Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

History

Date of printing : 26 February 2024

Date of issue/ Date of revision : 26 February 2024

Date of previous issue : No previous validation

Version : 1

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws. Any person using this product must determine for themselves, by preliminary tests or otherwise, the suitability of this product for their purposes. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. The application, use and processing of

Section 16. Other information

AkzoNobel's products and the products manufactured by Buyer on the basis of AkzoNobel's technical advice are beyond AkzoNobel's control and, therefore, entirely Buyer's own responsibility. AkzoNobel makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

IA_413

SAFETY DATA SHEET

Autocoat BT LV 151 DTM Hardener (1507-104)

Section 1. Identification

GHS product identifier : **Autocoat BT LV 151 DTM Hardener (1507-104)**
Other means of identification :

Relevant identified uses of the substance or mixture and uses advised against
: FOR INDUSTRIAL USE ONLY

Supplier/Manufacturer : Akzo Nobel Coatings, Inc.
1845 Maxwell
Troy, MI, 48084
USA
(800) 618-1010

Canadian Supplier : Akzo Nobel Coatings Ltd.
110 Woodbine Downs Blvd.
Unit #4 Etobicoke, Ontario
Canada M9W 5S6
+1 (800) 618-1010

Emergency telephone number : CHEMTREC +1 (800) 424-9300 (Inside the US)
CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)

Date of issue / Date of revision : 7 January 2020
Safety Data Sheet Version : 3.04
Date of printing : 7 January 2020

Akzo Nobel Coatings Inc. encourages and expects you to read and understand this entire MSDS, as there is important information throughout the document. Further, Akzo Nobel Coatings Inc. expects you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors, and others whom it knows or believes will use this material of the information contained in this MSDS and any other information regarding hazards and safety; 2) Furnish this same information to each of its customers for the product; 3) Request its customers to notify their employees, customers, and other users of the product of this information; and 4) Notify its employees, agents, contractors, and others that the precautions identified for this product and any other products with which mixtures may be created are transferable and cumulative to the mixture.

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Warning

Hazard statements : Flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Keep container tightly closed. Wash hands thoroughly after handling.

Response : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Hexamethylene diisocyanate, oligomers	75 - 80	28182-81-2
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	10 - 15	2530-83-8
n-butyl acetate	10 - 15	123-86-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Section 4. First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Hexamethylene diisocyanate, oligomers [3-(2,3-epoxypropoxy)propyl]trimethoxysilane n-butyl acetate	None. None. **NIOSH REL (United States, 10/2016).** STEL: 950 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 710 mg/m³ 10 hours. TWA: 150 ppm 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 710 mg/m³ 8 hours. TWA: 150 ppm 8 hours. **ACGIH TLV (United States, 3/2017).** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Section 8. Exposure controls/personal protection

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Typical.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Boiling point : 45°C (113°F)

boiling range : Not available.

Flash point : Closed cup: 35°C (95°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits

Upper: : Not determined.

Lower: : Not determined.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.11

Density : 9.26 lbs/gal 1.11 g/cm³

Solubility : Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (room temperature): 2.02 cm^2/s (202 cSt)

Weight Volatiles : 10.5% (w/w)

Volume Volatiles : 13.25 %(v/v)

Weight Solids : 89.50 %(w/w)

Volume Solids : 86.75 %(v/v)

Regulatory VOC : 1.0 lbs/gal 117 g/l minus water and exempt solvents

VOC Actual : 1.0 lbs/gal 117 g/l

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	LD50 Oral	Rat	7.01 g/kg	-
n-butyl acetate	LC50 Inhalation Vapor	Rat	390 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Hexamethylene diisocyanate, oligomers	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Section 11. Toxicological information

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Section 11. Toxicological information

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
n-butyl acetate	Acute LC50 32 mg/l Marine water Acute LC50 62000 µg/l	Crustaceans - Artemia salina Fish - Danio rerio	48 hours 96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Hexamethylene diisocyanate, oligomers	5.54	367.7	low
n-butyl acetate	2.3	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Special precautions for user : Please Note: The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.

Section 15. Regulatory information

U.S. Federal regulations

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard

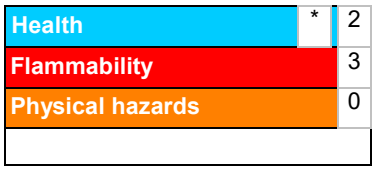
International lists

National inventory

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Europe	:	All components are listed or exempted.
Japan	:	**Japan inventory (ENCS)**: All components are listed or exempted. **Japan inventory (ISHL)**: At least one component is not listed.
Malaysia	:	All components are listed or exempted.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Turkey	:	All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Section 16. Other information

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision : 7 January 2020

Version : 3.04

MSDS # : 031976 0002 001EC00260

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

AkzoNobel

SAFETY DATA SHEET

Autocoat BT LV151 DTM Air Dry Additive

Section 1. Identification

GHS product identifier : Autocoat BT LV151 DTM Air Dry Additive

SDS code : 035288

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Industrial use

Uses advised against
Consumer use

Manufacturer : Akzo Nobel Coatings, Inc.
1845 Maxwell
Troy, MI, 48084
USA
(800) 618-1010

Akzo Nobel Coatings Ltd.
110 Woodbine Downs Blvd.
Unit #4 Etobicoke, Ontario
Canada M9W 5S6
+1 (800) 618-1010

Importer : Cía. Mexicana de Pinturas International
S.A. de C.V., Carretera Anillo Periférico,
No Ext 205, No Interior A, Colonia HDA S JOSE, Garcia, Garcia, CP 66000, Nuevo Leon.
RFC: ANA9510267C4

Emergency telephone number (with hours of operation) : CHEMTREC +1 (800) 424-9300 (Inside the US)
CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (immune system) - Category 1

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable liquid and vapor.
May damage the unborn child.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure. (immune system)

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national or international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
n-butyl acetate	≥25 - ≤50	123-86-4
3-Oxazolidineethanol, 2-(1-methylethyl)-, 3,3'-carbonate	≥20 - ≤25	145899-78-1
dioctyltin dilaurate	≤10	3648-18-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4. First aid measures

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
n-butyl acetate	**NIOSH REL (United States, 10/2016).** STEL: 950 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 710 mg/m³ 10 hours. TWA: 150 ppm 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 710 mg/m³ 8 hours. TWA: 150 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 950 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 710 mg/m³ 8 hours. TWA: 150 ppm 8 hours. **ACGIH TLV (United States, 3/2019).** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
3-Oxazolidineethanol, 2-(1-methylethyl)-, 3,3'-carbonate dioctyltin dilaurate	None. **ACGIH TLV (United States, 3/2019).** **Absorbed through skin. Notes: as Sn** STEL: 0.2 mg/m³, (as Sn) 15 minutes. TWA: 0.1 mg/m³, (as Sn) 8 hours. **NIOSH REL (United States, 10/2016).** **Absorbed through skin. Notes: as Sn** TWA: 0.1 mg/m³, (as Sn) 10 hours. **OSHA PEL (United States, 5/2018). Notes: as Sn**

Section 8. Exposure controls/personal protection

	TWA: 0.1 mg/m³, (as Sn) 8 hours. **OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: measured as Sn** TWA: 0.1 mg/m³, (measured as Sn) 8 hours. Form: Organic

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Boiling point : 45°C (113°F)

boiling range : Not available.

Flash point : Closed cup: 23°C (73.4°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits

Upper: : Not determined.

Lower: : Not determined.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 0.978

Density : 8.16 lbs/gal 0.978 g/cm³

Solubility : Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (room temperature): 0.1 cm^2/s (10 cSt)

Weight Volatiles : 70.17% (w/w)

Volume Volatiles : 73.55 %(v/v)

Weight Solids : 29.83 %(w/w)

Volume Solids : 26.45 %(v/v)

Regulatory VOC : 5.7 lbs/gal 686 g/l minus water and exempt solvents

VOC Actual : 5.7 lbs/gal 686 g/l

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Section 10. Stability and reactivity

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
n-butyl acetate	LC50 Inhalation Gas.	Rat	390 ppm	4 hours
	LC50 Inhalation Vapor	Mouse	6 g/m³	2 hours
	LC50 Inhalation Vapor	Rat	390 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Intraperitoneal	Mouse	1230 mg/kg	-
	LD50 Oral	Guinea pig	4700 mg/kg	-
	LD50 Oral	Mouse	6 g/kg	-
	LD50 Oral	Rabbit	3200 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
dioctyltin dilaurate	LD50 Intraperitoneal	Rat	95 mg/kg	-
	LD50 Oral	Rat	6450 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
dioctyltin dilaurate	Category 1	Not determined	immune system

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Section 11. Toxicological information

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Causes damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
n-butyl acetate	Acute LC50 32 mg/l Marine water Acute LC50 100000 µg/l Fresh water Acute LC50 18000 µg/l Fresh water Acute LC50 185000 µg/l Marine water Acute LC50 62000 µg/l Fresh water	Crustaceans - Artemia salina Fish - Lepomis macrochirus Fish - Pimephales promelas Fish - Menidia beryllina Fish - Danio rerio	48 hours 96 hours 96 hours 96 hours 96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
n-butyl acetate dioctyltin dilaurate	2.3 -	- <100	low low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	Paint related material	PAINT RELATED MATERIAL	PRODUCTOS PARA PINTURA	PAINT RELATED MATERIAL	Paint related material

Section 14. Transport information

Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.

Additional information

DOT Classification : **Reportable quantity** 10337.5 lbs / 4693.2 kg [1267.7 gal / 4798.8 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
Limited quantity Yes.
Packaging instruction Exceptions: 150. Non-bulk: 173. Bulk: 242.
Quantity limitation Passenger aircraft/rail: 60 L. Cargo aircraft: 220 L.
Special provisions 367, B1, B52, IB3, T2, TP1, TP29

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).
Explosive Limit and Limited Quantity Index 5
Passenger Carrying Road or Rail Index 60
Special provisions 59, 142

Mexico Classification : **Special provisions** 163, 223

IMDG : **Emergency schedules** F-E, _S-E_
Special provisions 163, 223, 367, 955

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344.
Special provisions A3, A72, A192

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 5(a)2 final significant new use rules:** No products found.
TSCA 5(e) substance consent order: No products found.
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 311: n-butyl acetate

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

Section 15. Regulatory information

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
No products were found.						

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (immune system) - Category 1

Composition/information on ingredients

Name	%	Classification
n-butyl acetate	≥25 - ≤50	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
dioctyltin dilaurate	≤10	TOXIC TO REPRODUCTION (Unborn child) - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (immune system) - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	No products were found.		
Supplier notification	No products were found.		

State regulations

Massachusetts : The following components are listed: BUTYL ACETATE; N-BUTYL ACETATE; BUTYL ACETATE; N-BUTYL ACETATE

New York : The following components are listed: Butyl acetate; Butyl acetate

New Jersey : The following components are listed: n-BUTYL ACETATE; ACETIC ACID, BUTYL ESTER; n-BUTYL ACETATE; ACETIC ACID, BUTYL ESTER

Pennsylvania : The following components are listed: ACETIC ACID, BUTYL ESTER; ACETIC ACID, BUTYL ESTER

California Prop. 65

Inventory list

Australia : At least one component is not listed.

Canada : All components are listed or exempted.

China : At least one component is not listed.

Europe : All components are listed or exempted.

Japan : **Japan inventory (CSCL)**: At least one component is not listed.
Japan inventory (ISHL): At least one component is not listed.

Malaysia : At least one component is not listed.

New Zealand : All components are listed or exempted.

Philippines : At least one component is not listed.

Republic of Korea : All components are listed or exempted.

Section 15. Regulatory information

Taiwan : At least one component is not listed.

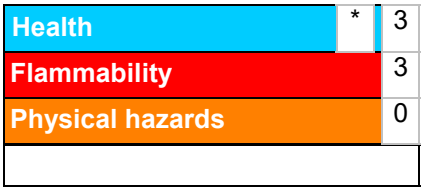
Thailand : At least one component is not listed.

Turkey : At least one component is not listed.

Viet Nam : At least one component is not listed.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
TOXIC TO REPRODUCTION (Unborn child) - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (immune system) - Category 1	Calculation method

History

Date of printing : 18 March 2024

Date of issue/ Date of revision : 20 September 2023

Date of previous issue : 20 September 2023

Version : 1.04

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws. Any person using this product must determine for themselves, by preliminary tests or otherwise, the suitability of this product for their purposes. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. The application, use and processing of

Section 16. Other information

AkzoNobel's products and the products manufactured by Buyer on the basis of AkzoNobel's technical advice are beyond AkzoNobel's control and, therefore, entirely Buyer's own responsibility. AkzoNobel makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

IA_493

SAFETY DATA SHEET

Cleaning Solvent

Section 1. Identification

GHS product identifier : **Cleaning Solvent**
Other means of identification :

Relevant identified uses of the substance or mixture and uses advised against
: FOR INDUSTRIAL USE ONLY

Supplier/Manufacturer : Akzo Nobel Coatings, Inc.
1845 Maxwell
Troy, MI, 48084
USA
(800) 618-1010

Canadian Supplier : Akzo Nobel Coatings Ltd.
110 Woodbine Downs Blvd.
Unit #4 Etobicoke, Ontario
Canada M9W 5S6
+1 (800) 618-1010

Emergency telephone number : CHEMTREC +1 (800) 424-9300 (Inside the US)
CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)

Date of issue / Date of revision : 8 May 2020
Safety Data Sheet Version : 17.08
Date of printing : 8 May 2020

Akzo Nobel Coatings Inc. encourages and expects you to read and understand this entire MSDS, as there is important information throughout the document. Further, Akzo Nobel Coatings Inc. expects you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors, and others whom it knows or believes will use this material of the information contained in this MSDS and any other information regarding hazards and safety; 2) Furnish this same information to each of its customers for the product; 3) Request its customers to notify their employees, customers, and other users of the product of this information; and 4) Notify its employees, agents, contractors, and others that the precautions identified for this product and any other products with which mixtures may be created are transferable and cumulative to the mixture.

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (oral) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
Harmful if swallowed.
Causes serious eye irritation.
Causes skin irritation.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Ground/bond container and receiving equipment.

Response : IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
acetone	50 - 55	67-64-1
toluene	40 - 45	108-88-3
n-butyl acetate	1 - 5	123-86-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Section 4. First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
acetone	**ACGIH TLV (United States, 3/2015).** STEL: 500 ppm 15 minutes. TWA: 250 ppm 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 590 mg/m³ 10 hours. TWA: 250 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 2400 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.
toluene	**NIOSH REL (United States, 10/2013).**

Section 8. Exposure controls/personal protection

	STEL: 560 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL Z2 (United States, 2/2013).** AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. **ACGIH TLV (United States, 3/2015).** TWA: 20 ppm 8 hours.
n-butyl acetate	**ACGIH TLV (United States, 3/2015).** STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 950 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 710 mg/m³ 10 hours. TWA: 150 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 710 mg/m³ 8 hours. TWA: 150 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Boiling point : 56°C (132.8°F)

boiling range : Not available.

Flash point : Closed cup: -16°C (3.2°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits

Upper: : Not determined.

Lower: : Not determined.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 0.829

Density : 6.92 lbs/gal 0.829 g/cm³

Solubility : Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Section 9. Physical and chemical properties

Decomposition temperature : Not available.

Viscosity : Kinematic (room temperature): 0.12 cm^2/s (12 cSt)
Kinematic (40°C (104°F)): 0.07 cm^2/s (7 cSt)

Weight Volatiles : 100% (w/w)

Volume Volatiles : 100.00 %(v/v)

Weight Solids : 0.00 %(w/w)

Volume Solids : 0 %(v/v)

Regulatory VOC : 7.3 lbs/gal 871 g/l minus water and exempt solvents

VOC Actual : 3.5 lbs/gal 415 g/l

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
acetone	LD50 Oral	Rat	5800 mg/kg	-
toluene	LD50 Oral	Rat	636 mg/kg	-
n-butyl acetate	LC50 Inhalation Vapor	Rat	390 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
toluene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1413.3 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 20.565 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
n-butyl acetate	Acute LC50 62000 µg/l	Fish - Danio rerio	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
acetone	-0.23	-	low
toluene	2.73	90	low
n-butyl acetate	2.3	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered

Section 13. Disposal considerations

when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Special precautions for user : Please Note: The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1993	UN1993	UN1993	UN1993	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (acetone, toluene)	FLAMMABLE LIQUID, N.O.S. (acetone, toluene)	FLAMMABLE LIQUID, N.O.S. (acetone, toluene)	FLAMMABLE LIQUID, N.O.S. (acetone, toluene)	FLAMMABLE LIQUID, N.O.S. (acetone, toluene)
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.

Section 15. Regulatory information

U.S. Federal regulations

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	toluene	108-88-3	40 - 45

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
toluene	No.	Yes.	No.	7000 µg/day (ingestion)

International lists

National inventory

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): At least one component is not listed.

Malaysia : All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

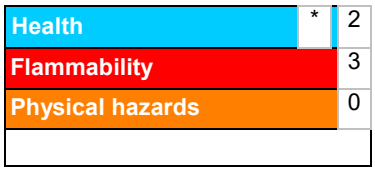
Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Turkey : All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Section 16. Other information

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision	:	8 May 2020		
Version	:	17.08		
MSDS #	:	R27547	0006	00196EECE0

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

AkzoNobel

SAFETY DATA SHEET

OTO Quick Degreaser

Section 1. Identification

GHS product identifier : OTO Quick Degreaser

SDS code : R27501

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Industrial use

Uses advised against
Consumer use

Manufacturer : Akzo Nobel Coatings, Inc.
1845 Maxwell
Troy, MI, 48084
USA
(800) 618-1010

Akzo Nobel Coatings Ltd.
110 Woodbine Downs Blvd.
Unit #4 Etobicoke, Ontario
Canada M9W 5S6
+1 (800) 618-1010

Importer : Cía. Mexicana de Pinturas International
S.A. de C.V., Carretera Anillo Periférico,
No Ext 205, No Interior A, Colonia HDA S JOSE, Garcia, Garcia, CP 66000, Nuevo Leon.
RFC: ANA9510267C4

Emergency telephone number (with hours of operation) : CHEMTREC +1 (800) 424-9300 (Inside the US)
CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2
ASPIRATION HAZARD - Category 1

Section 2. Hazards identification

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
Harmful in contact with skin or if inhaled.
Causes serious eye irritation.
Causes skin irritation.
Suspected of damaging the unborn child.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure. (hearing organs)

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national or international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
xylene	≥50 - ≤75	1330-20-7
ethylbenzene	≥10 - ≤20	100-41-4
Isopropyl alcohol	≤10	67-63-0
Solvent naphtha (petroleum), light aliph.	≤5	64742-89-8
Naphtha (petroleum), hydrotreated light	≤5	64742-49-0
Distillates (petroleum), light distillate hydrotreating process, low-boiling	≤5	68410-97-9
toluene	<1	108-88-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Harmful if inhaled. May cause respiratory irritation.

Skin contact : Harmful in contact with skin. Causes skin irritation.

Ingestion : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
xylene	**ACGIH TLV (United States, 3/2019). Notes: 1996 Adoption Substances for which there is a Biological Exposure Index or Indices Refers to Appendix A -- Carcinogens.** STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL (United States, 5/2018).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours.

Section 8. Exposure controls/personal protection

	TWA: 100 ppm 8 hours.
ethylbenzene	**ACGIH TLV (United States, 3/2019). Notes: Substances for which there is a Biological Exposure Index or Indices 2002 Adoption.** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2016).** STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
Isopropyl alcohol	**ACGIH TLV (United States, 3/2019). Notes: Refers to Appendix A -- Carcinogens. ACGIH 2003 Adoption** STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. **NIOSH REL (United States, 10/2016).** STEL: 1225 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 980 mg/m³ 10 hours. TWA: 400 ppm 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 1225 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours.
Solvent naphtha (petroleum), light aliph. Naphtha (petroleum), hydrotreated light Distillates (petroleum), light distillate hydrotreating process, low-boiling toluene	None. None. None. **NIOSH REL (United States, 10/2016).** STEL: 560 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL Z2 (United States, 2/2013).** AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. **ACGIH TLV (United States, 3/2019).** TWA: 20 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989). Notes: See Table Z-2.** STEL: 560 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Section 8. Exposure controls/personal protection

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Boiling point : 83°C (181.4°F)

boiling range : Not available.

Flash point : Closed cup: 13°C (55.4°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits

Section 9. Physical and chemical properties

Upper:	:	Not determined.
Lower:	:	Not determined.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	0.846
Density	:	7.06 lbs/gal 0.846 g/cm³
Solubility	:	Not available.
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
Viscosity	:	Kinematic (room temperature): 0.12 cm^2/s (12 cSt) Kinematic (40°C (104°F)): 0.07 cm^2/s (7 cSt)
Weight Volatiles	:	100% (w/w)
Volume Volatiles	:	100.00 %(v/v)
Weight Solids	:	0.00 %(w/w)
Volume Solids	:	0 %(v/v)
Regulatory VOC	:	7.1 lbs/gal 846 g/l minus water and exempt solvents
VOC Actual	:	7.1 lbs/gal 846 g/l

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LD50 Intraperitoneal	Mouse	1548 mg/kg	-
	LD50 Intraperitoneal	Mouse	1548 mg/kg	-
	LD50 Intraperitoneal	Rat	2459 mg/kg	-
	LD50 Oral	Mouse	2119 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-

Section 11. Toxicological information

	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Subcutaneous	Rat	1700 mg/kg	-
ethylbenzene	LC50 Inhalation Gas.	Rabbit	4000 ppm	4 hours
	LC50 Inhalation Vapor	Mouse	35500 mg/m³	2 hours
	LC50 Inhalation Vapor	Rat	55000 mg/m³	2 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Dermal	Rabbit	17800 uL/kg	-
	LD50 Intraperitoneal	Mouse	2624 uL/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Isopropyl alcohol	LC50 Inhalation Gas.	Rat	16000 ppm	8 hours
	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Intraperitoneal	Guinea pig	2560 mg/kg	-
	LD50 Intraperitoneal	Mouse	4477 mg/kg	-
	LD50 Intraperitoneal	Rabbit	667 mg/kg	-
	LD50 Intraperitoneal	Rat	2735 mg/kg	-
	LD50 Intravenous	Mouse	1509 mg/kg	-
	LD50 Intravenous	Rabbit	1184 mg/kg	-
	LD50 Intravenous	Rat	1088 mg/kg	-
	LD50 Oral	Mouse	3600 mg/kg	-
	LD50 Oral	Mouse	3600 mg/kg	-
	LD50 Oral	Rabbit	6410 mg/kg	-
	LD50 Oral	Rat	5045 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Distillates (petroleum), light distillate hydrotreating process, low-boiling	LD50 Oral	Rat	5.17 g/kg	-
	LD50 Oral	Rat	5170 mg/kg	-
toluene	LC50 Inhalation Gas.	Mouse	400 ppm	24 hours
	LC50 Inhalation Vapor	Mouse	30000 mg/m³	2 hours
	LC50 Inhalation Vapor	Mouse	19900 mg/m³	7 hours
	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Dermal	Rabbit	14100 uL/kg	-
	LD50 Intraperitoneal	Guinea pig	500 mg/kg	-
	LD50 Intraperitoneal	Mouse	59 mg/kg	-
	LD50 Intraperitoneal	Rat	1332 mg/kg	-
	LD50 Intravenous	Rat	1960 mg/kg	-
	LD50 Oral	Rat	636 mg/kg	-
	LD50 Route of exposure unreported	Mouse	2 g/kg	-
	LD50 Route of exposure unreported	Rat	6900 mg/kg	-
	LD50 Subcutaneous	Mouse	2250 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 Ul	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
Isopropyl alcohol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-

Section 11. Toxicological information

				100 mg	
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
xylene	-	3	-
ethylbenzene	-	2B	-
Isopropyl alcohol	-	3	-
toluene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 3	Not applicable.	Respiratory tract irritation
Isopropyl alcohol	Category 3	Not applicable.	Narcotic effects
toluene	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	Not determined	hearing organs
toluene	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aliph.	ASPIRATION HAZARD - Category 1
Naphtha (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1
Distillates (petroleum), light distillate hydrotreating process, low-boiling	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Section 11. Toxicological information

Inhalation : Harmful if inhaled. May cause respiratory irritation.

Skin contact : Harmful in contact with skin. Causes skin irritation.

Ingestion : May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Dermal Inhalation (vapors)	1268.8 mg/kg 13.74 mg/l

Section 11. Toxicological information

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
xylene	Acute EC50 90 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 8.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 15700 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 20870 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 19000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 16940 µg/l Fresh water	Fish - Carassius auratus	96 hours
ethylbenzene	Acute EC50 4900 µg/l Marine water	Algae - Skeletonema costatum	72 hours
	Acute EC50 7700 µg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 5400 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 13.3 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2.97 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 8.78 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute LC50 13.3 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute LC50 40000 µg/l Marine water	Crustaceans - Cancer magister - Zoea	48 hours
	Acute LC50 18.4 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 13.9 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 75000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5100 µg/l Marine water	Fish - Menidia menidia	96 hours
	Acute LC50 9090 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 9100 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 4.3 ul/L Marine water	Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Isopropyl alcohol	Acute EC50 10100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 7550 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute EC50 9550 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 6550000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 9640000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 10400000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
Solvent naphtha (petroleum),	Acute LC50 >100000 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

Section 12. Ecological information

light aliph.			
toluene	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 16500 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6.88 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute EC50 6.56 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute EC50 19600 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute EC50 6780 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 15.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 15500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 56.3 ppm Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 86.3 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Acute LC50 6410 µg/l Marine water	Fish - Oncorhynchus gorbuscha - Fry	96 hours
	Acute LC50 5800 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 6780 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 2 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
xylene	3.12	8.1 to 25.9	low
ethylbenzene	3.6	-	low
Isopropyl alcohol	0.05	-	low
Solvent naphtha (petroleum), light aliph.	-	10 to 2500	high
Naphtha (petroleum), hydrotreated light	2.2 to 5.2	10 to 2500	high
Distillates (petroleum), light distillate hydrotreating process, low-boiling	-	10 to 2500	high
toluene	2.73	90	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Section 12. Ecological information

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1993	UN1993	UN1993	UN1993	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (xylene, ethylbenzene)	FLAMMABLE LIQUID, N.O.S. (xylene, ethylbenzene)	FLAMMABLE LIQUID, N.O.S. (xylene, ethylbenzene)	FLAMMABLE LIQUID, N.O.S. (xylene, ethylbenzene)	FLAMMABLE LIQUID, N.O.S. (xylene, ethylbenzene)
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Marine Pollutant (s): Solvent naphtha (petroleum), light aliph., Naphtha (petroleum), hydrotreated light	Yes. The environmentally hazardous substance mark is not required.

Additional information

DOT Classification : **Reportable quantity** 154.21 lbs / 70.013 kg [21.862 gal / 82.758 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).
The marine pollutant mark is not required when transported by road or rail.

IMDG : **Emergency schedules** F-E, _S-E_
The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Section 14. Transport information

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 5(a)2 final significant new use rules:** No products found.

TSCA 5(e) substance consent order: No products found.

TSCA 8(a) PAIR: heptane

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 307: ethylbenzene; toluene

Clean Water Act (CWA) 311: xylene; ethylbenzene; toluene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
No products were found.						

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2
ASPIRATION HAZARD - Category 1

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
xylene	≥50 - ≤75	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1
ethylbenzene	≥10 - ≤20	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 ASPIRATION HAZARD - Category 1
propan-2-ol	≤10	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha; [A complex combination of hydrocarbons obtained from the distillation of crude oil or natural gasoline. It consists predominantly of saturated hydrocarbons having carbon numbers predominantly in the range of C5 through C10 and boiling in the range of approximately 35°C to 160°C (95°F to 320°F).]	≤5	ASPIRATION HAZARD - Category 1
Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C4 through C11 and boiling in the range of approximately minus 20°C to 190°C (– 4°F to 374°F).]	≤5	SKIN IRRITATION - Category 2 ASPIRATION HAZARD - Category 1
Distillates (petroleum), light distillate hydrotreating process, low-boiling	≤5	ASPIRATION HAZARD - Category 1
toluene	<1	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	xylene ethylbenzene	1330-20-7 100-41-4	≥50 - ≤75 ≥10 - ≤20
Supplier notification	xylene ethylbenzene	1330-20-7 100-41-4	≥50 - ≤75 ≥10 - ≤20

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: XYLENE; DIMETHYLBENZENE; ISOPROPYL ALCOHOL; 2-PROPANOL

New York : The following components are listed: Xylene mixed

New Jersey : The following components are listed: XYLENES; BENZENE, DIMETHYL-; ISOPROPYL ALCOHOL; 2-PROPANOL; VM & P NAPHTHA; LIGROINE

Pennsylvania : The following components are listed: BENZENE, DIMETHYL-; 2-PROPANOL; LIGROINE

California Prop. 65

⚠ **WARNING**: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
ethylbenzene toluene	Yes. -	- Yes.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : **Japan inventory (CSCL)**: At least one component is not listed.
Japan inventory (ISHL): All components are listed or exempted.

Malaysia : At least one component is not listed.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

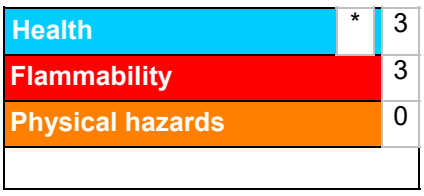
Thailand : At least one component is not listed.

Turkey : All components are listed or exempted.

Viet Nam : All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
ACUTE TOXICITY (dermal) - Category 4	Calculation method
ACUTE TOXICITY (inhalation) - Category 4	Calculation method
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 8 March 2024

Date of issue/ Date of revision : 20 May 2023

Date of previous issue : 20 May 2023

Version : 1.05

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws. Any person using this product must determine for themselves, by preliminary tests or otherwise, the suitability of this product for their purposes. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. The application, use and processing of AkzoNobel's products and the products manufactured by Buyer on the basis of AkzoNobel's technical advice are beyond AkzoNobel's control and, therefore, entirely Buyer's own responsibility. AkzoNobel makes no warranty as to accuracy and/ or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

Kentucky.gov

Kentucky Secretary of State
Michael G. Adams

Fitzgerald Trailers LLC

File Annual Report | Change Address or Registered Agent | File Certificate of Assumed Name (DBA) | File Withdrawal | File Registered Agent Resignation | File Amended Certificate of Authority

Printable Forms | Subscribe to changes made to this entity | Certificate of Good Standing

General Information

Organization Number	1270873
Name	Fitzgerald Trailers LLC
Name in TN	Fitzgerald Trailers LLC
Profit or Non-Profit	P - Profit
Company Type	FLC - Foreign Limited Liability Company
Status	A - Active
Standing	G - Good
State	TN
Country	USA
File Date	3/28/2023 11:39:05 AM
Organization Date	3/17/2022
Authority Date	3/28/2023
Last Annual Report	N/A
Principal Office	310 Oak Hill Rd Livingston, TN 38570
Registered Agent	Robert Fitzgerald 667 Capp Harlan Rd Tompkinsville, KY 42167

Show Initial Officers

Show Images

Show Former Names