

# SAFETY DATA SHEET

#### 1. Identification

Product identifier: SPRAYWAY GLASS CLEANER

Other means of identification SDS number: RE100000075

#### **Recommended restrictions**

Product use: Cleaner Restrictions on use: Not known.

#### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name:	Sprayway, Inc.
Address:	1000 INTEGRAM DR.
	Pacific, MO 63069
Telephone:	1-630-628-3000
Fax:	

Emergency telephone number: 1-866-836-8855

#### 2. Hazard(s) identification

#### **Hazard Classification**

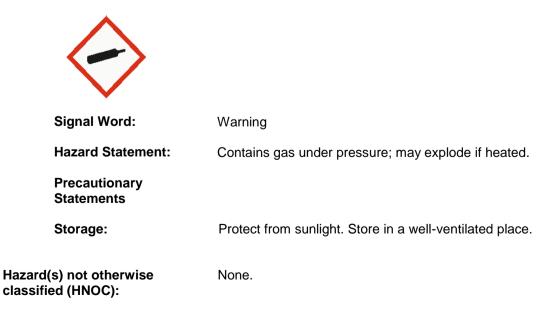
#### **Physical Hazards**

Gases under pressure

Compressed gas

#### **Label Elements**

Hazard Symbol:





### 3. Composition/information on ingredients

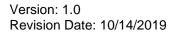
#### **Mixtures**

Chemical Identity	CAS number	Content in percent (%)*
Ethanol	64-17-5	1 - <5%
Ethanol, 2-butoxy-	111-76-2	1 - <5%
Propane	74-98-6	1 - <5%
Butane	106-97-8	1 - <5%
Morpholine	110-91-8	0.1 - <1%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

Ingestion:	Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.	
Inhalation:	Move to fresh air.	
Skin Contact:	Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.	t
Eye contact:	Any material that contacts the eye should be washed out immediately water. If easy to do, remove contact lenses. If eye irritation persists: Ge medical advice/attention.	
Most important symptoms/effect	s, acute and delayed	
Symptoms:	No data available.	
Hazards:	No data available.	
Indication of immediate medical	attention and special treatment needed	
Treatment:	No data available.	
5. Fire-fighting measures		
General Fire Hazards:	Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so with risk.	
Suitable (and unsuitable) extingu	uishing media	
Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.	
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.	
Specific hazards arising from the chemical:	Pressurized container may explode when exposed to heat or flame.	
Special protective equipment an	d precautions for firefighters	
Special fire fighting procedures:	No data available.	
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.	
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#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.
Methods and material for containment and cleaning up:	Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.
Notification Procedures:	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.
Environmental Precautions:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.
7. Handling and storage	
Precautions for safe handling:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.
Conditions for safe storage, including any incompatibilities:	Protect from sunlight. Store in a cool place. Aerosol Level 1

### 8. Exposure controls/personal protection

#### **Control Parameters**

#### **Occupational Exposure Limits**

Chemical Identity	Туре	Exposure	Limit Values	Source
Ethanol	REL	1,000 ppm	1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm	1,900 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm	1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	1,000 ppm		US. ACGIH Threshold Limit Values (2009)
Ethanol, 2-butoxy-	TWA	20 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	25 ppm	120 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	5 ppm	24 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	50 ppm	240 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Propane	REL	1,000 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm	1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm	1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Butane	REL	800 ppm	1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	1,000 ppm		US. ACGIH Threshold Limit Values (03 2018)
	TWA	800 ppm	1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Morpholine	REL	20 ppm	70 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	30 ppm	105 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	20 ppm	70 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	30 ppm	105 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	20 ppm	70 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
2-Propanol, 2-methyl-	STEL	150 ppm	450 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm	300 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	100 ppm	300 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)



	TWA	100 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	150 ppm	450 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm	300 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Acetic acid, phenylmethyl ester	TWA	10 ppm		US. ACGIH Threshold Limit Values (2008)
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	REL		5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
· · · <b>·</b>	TWA		5 mg/m3	US. ACGIH Threshold Limit Values (2008)
	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Ethanol, 2-methoxy-	TWA	0.1 ppm		US. ACGIH Threshold Limit Values (2008)
	REL	0.1 ppm	0.3 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	25 ppm	80 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	25 ppm	80 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
1,2-Ethanediamine	TWA	10 ppm		US. ACGIH Threshold Limit Values (2008)
	PEL	10 ppm	25 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	10 ppm	25 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	10 ppm	25 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Benzene, 1,1'-oxybis Vapor.	STEL	2 ppm		US. ACGIH Threshold Limit Values (03 2018)
	TWA	1 ppm		US. ACGIH Threshold Limit Values (03 2018)
	PEL	1 ppm	7 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	REL	1 ppm	7 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	1 ppm	7 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Morpholine, 4-ethyl-	REL	5 ppm	23 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	5 ppm	23 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	20 ppm	94 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	5 ppm		US. ACGIH Threshold Limit Values (2008)
Ethanone, 1-phenyl-	TWA	10 ppm	50 mg/m3	US. OARS. WEELs Workplace Environmental Exposure Level Guide (2007)
	TWA	10 ppm		US. ACGIH Threshold Limit Values (2008)
Stoddard solvent	TWA	100 ppm		US. ACGIH Threshold Limit Values (2008)
	REL		350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	500 ppm	2,900 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	Ceil_Time		1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm	525 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

#### **Biological Limit Values**

Chemical Identity	Exposure Limit Values	Source
Ethanol, 2-butoxy- (Butoxyacetic acid (BAA), with hydrolysis: Sampling time: End of shift.)	200 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Ethanol, 2-methoxy- (2-Methoxyacetic acid: Sampling time: End of shift at end of work week.)	1 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)

#### Appropriate Engineering Controls

No data available.

#### Individual protection measures, such as personal protective equipment

General information:Use personal protective equipment as required. Personal protection<br/>equipment should be chosen according to the CEN standards and in<br/>discussion with the supplier of the personal protective equipment.Eye/face protection:<br/>Skin Protection<br/>Hand Protection:Wear goggles/face shield.<br/>No data available.Other:No data available.

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Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	When using do not smoke. Observe good industrial hygiene practices.

### 9. Physical and chemical properties

#### Appearance

Physical state:	liquid
Form:	Spray Aerosol
Color:	No data available.
Odor:	No data available.
Odor threshold:	No data available.
pH:	9.1 - 10.1
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	estimated 100 °C
Flash Point:	No data available.
Evaporation rate:	No data available.
Flammability (solid, gas):	Non-flammable Aerosol
Upper/lower limit on flammability or explosive	limits
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	551 - 689 kPa (21 °C)
Vapor density:	No data available.
Density:	0.97 g/cm3
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
	Nuclear States
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

### 10. Stability and reactivity

Reactivity:	No data available.	
Chemical Stability:	Material is stable under normal conditions.	
Possibility of hazardous reactions:	No data available.	
Conditions to avoid:	Avoid heat or contamination.	
Incompatible Materials:	No data available.	
Hazardous Decomposition Products:	No data available.	
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## 11. Toxicological information

Information on likely routes of Inhalation:	exposure No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.
Symptoms related to the physic	cal, chemical and toxicological characteristics
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.
Information on toxicological eff	iects
Acute toxicity (list all possib	le routes of exposure)
Oral Product:	ATEmix: 60,312.96 mg/kg
Dermal Product:	ATEmix: 21,175.76 mg/kg
Inhalation Product:	ATEmix: 690.87 mg/l ATEmix : 172.72 mg/l
Demosteri de esterisión	
Repeated dose toxicity Product:	No data available.
Product: Specified substance(s):	
Product: Specified substance(s): Ethanol	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study
Product: Specified substance(s):	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation
Product: Specified substance(s): Ethanol	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation
Product: Specified substance(s): Ethanol Ethanol, 2-butoxy-	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study
Product: Specified substance(s): Ethanol Ethanol, 2-butoxy- Propane	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation
Product: Specified substance(s): Ethanol Ethanol, 2-butoxy- Propane Butane Morpholine Skin Corrosion/Irritation	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 36 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation): 36 ppm(m) Inhalation Experimental result, Key study
Product: Specified substance(s): Ethanol Ethanol, 2-butoxy- Propane Butane Morpholine	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 36 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 36 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female), Oral, 56 d): 500 mg/kg Oral Experimental result, Key
Product: Specified substance(s): Ethanol Ethanol, 2-butoxy- Propane Butane Morpholine Skin Corrosion/Irritation Product:	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 36 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation): 36 ppm(m) Inhalation Experimental result, Key study



Ethanol, 2-butoxy-	in vivo (Rabbit): Irritating Experimental result, Key study		
Morpholine	in vivo (Rabbit): Corrosive Experimental result, Key study		
Serious Eye Damage/Eye Irritation Product:	on No data available.		
Specified substance(s): Ethanol	Rabbit, 1 - 24 hrs: Not irritating		
Ethanol, 2-butoxy-	Rabbit, 24 - 72 hrs: Irritating		
Respiratory or Skin Sensitization Product:	n No data available.		
<b>Specified substance(s):</b> Ethanol Ethanol, 2-butoxy- Morpholine	Skin sensitization:, in vivo (Guinea pig): Non sensitising Skin sensitization:, in vivo (Guinea pig): Non sensitising Skin sensitization:, in vivo (Guinea pig): Non sensitising		
Carcinogenicity Product:	No data available.		
IARC Monographs on the Evalua No carcinogenic components	ation of Carcinogenic Risks to Humans: s identified		
•••••	US. National Toxicology Program (NTP) Report on Carcinogens: No carcinogenic components identified		
US. OSHA Specifically Regulate No carcinogenic components	<b>d Substances (29 CFR 1910.1001-1050):</b> s identified		
Germ Cell Mutagenicity			
In vitro Product:	No data available.		
In vivo Product:	No data available.		
Reproductive toxicity Product:	No data available.		
Specific Target Organ Toxicity - Single Exposure         Product:       No data available.			
Specific Target Organ Toxicity - Product:	Repeated Exposure No data available.		
Aspiration Hazard Product:	No data available.		
Other effects:	No data available.		
12. Ecological information			

### Ecotoxicity:

Acute hazards to the aquatic environment:

Fish Product:	No data available.
Specified substance(s): Ethanol	LC 50 (Pimephales promelas, 96 h): 15.3 g/l Experimental result, Key study
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Ethanol, 2-butoxy-	LC 50 (Oncorhynchus mykiss, 96 h): 1,474 mg/l Experimental result, Key study
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Morpholine	LC 50 (Oncorhynchus mykiss, 96 h): 180 mg/l Experimental result, Key study
Aquatic Invertebrates Product:	No data available.
Specified substance(s): Ethanol	LC 50 (Ceriodaphnia dubia, 48 h): 5,012 mg/l Experimental result, Key study
Ethanol, 2-butoxy-	EC 50 (Daphnia magna, 48 h): 1,550 mg/l Experimental result, Key study
Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Morpholine	EC 50 (Daphnia magna, 48 h): 45 mg/l Experimental result, Key study

#### Chronic hazards to the aquatic environment:

Fish Product: Specified substance(s):	No data available.
Ethanol	NOAEL (Oryzias latipes): 7,900 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
Ethanol, 2-butoxy-	NOAEL (Danio rerio): > 100 mg/l Experimental result, Key study
Aquatic Invertebrates Product:	No data available.
Specified substance(s): Ethanol	LC 50 (Daphnia magna): 454 mg/l Experimental result, Key study NOAEL (Daphnia magna): 9.6 mg/l Experimental result, Key study
Ethanol, 2-butoxy-	EC 50 (Daphnia magna): 297 mg/l Experimental result, Key study EC 10 (Daphnia magna): 134 mg/l Experimental result, Key study
Morpholine	EC 50 (Daphnia magna): 12 mg/l Experimental result, Key study NOAEL (Daphnia magna): 5 mg/l Experimental result, Key study
Toxicity to Aquatic Plants Product:	No data available.
Persistence and Degradability	
Biodegradation Product:	No data available.
Specified substance(s): Ethanol	95 % Detected in water. Experimental result, Key study
Ethanol, 2-butoxy-	90.4 % Detected in water. Experimental result, Key study
Propane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Butane	100 % (385.5 h) Detected in water. Experimental result, Key study
Morpholine	<ul> <li>&gt; 90 % (24 h) Sediment Experimental result, Key study</li> <li>80 - 94 % (24 h) Sediment Experimental result, Key study</li> </ul>



BOD/COD Ratio Product:	No data available.
Bioaccumulative potential Bioconcentration Factor (B	CE)
Product:	No data available.
Specified substance(s): Ethanol	Cyprinus carpio, Bioconcentration Factor (BCF): 4.5 Aquatic sediment Read- across from supporting substance (structural analogue or surrogate), Supporting study
Morpholine	Cyprinus carpio, Bioconcentration Factor (BCF): < 2.8 Aquatic sediment Experimental result, Key study
Partition Coefficient n-octanol / Product:	water (log Kow) No data available.
Mobility in soil:	No data available.
Known or predicted distribu	ution to environmental compartments
Ethanol	No data available.
Ethanol, 2-butoxy-	No data available.
Propane	No data available.
Butane	No data available.
Morpholine	No data available.
Other adverse effects:	No data available.
13. Disposal considerations	
Disposal instructions:	Wash before disposal. Dispose to controlled facilities.
Contaminated Packaging:	No data available.
00	
14 Transport information	
14. Transport information	
14. Transport information	
-	UN 1950
DOT UN Number:	
DOT UN Number: UN Proper Shipping Name:	UN 1950 Aerosols, non-flammable
DOT UN Number:	
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class:	Aerosols, non-flammable
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s):	Aerosols, non-flammable
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class:	Aerosols, non-flammable 2.2 –
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant:	Aerosols, non-flammable 2.2 – II No
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group:	Aerosols, non-flammable 2.2 – II
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards:	Aerosols, non-flammable 2.2 – II No No
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user:	Aerosols, non-flammable 2.2 – II No No
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG	Aerosols, non-flammable 2.2 - II No No No Not regulated.
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number:	Aerosols, non-flammable 2.2 - II No No No Not regulated. UN 1950
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number: UN Proper Shipping Name:	Aerosols, non-flammable 2.2 - II No No No Not regulated.
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number: UN Proper Shipping Name: Transport Hazard Class(es)	Aerosols, non-flammable 2.2 - II No No No Not regulated. UN 1950 Aerosols, non-flammable
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class:	Aerosols, non-flammable 2.2 - II No No No Not regulated. UN 1950
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number: UN Proper Shipping Name: Transport Hazard Class(es)	Aerosols, non-flammable 2.2 - II No No No Not regulated. UN 1950 Aerosols, non-flammable
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s):	Aerosols, non-flammable 2.2 - II No No No Not regulated. UN 1950 Aerosols, non-flammable
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): EmS No.: Packing Group:	Aerosols, non-flammable 2.2 I I I No No No No No Not regulated. UN 1950 Aerosols, non-flammable 2
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): EmS No.:	Aerosols, non-flammable 2.2 - II No No No Not regulated. UN 1950 Aerosols, non-flammable
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): EmS No.: Packing Group: Environmental Hazards: Marine Pollutant	Aerosols, non-flammable 2.2 I I No No No Not regulated. UN 1950 Aerosols, non-flammable 2 - No No No
DOT UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Environmental Hazards: Marine Pollutant Special precautions for user: IMDG UN Number: UN Proper Shipping Name: Transport Hazard Class(es) Class: Label(s): EmS No.: Packing Group: Environmental Hazards:	Aerosols, non-flammable 2.2 I I I No No No No Not regulated. UN 1950 Aerosols, non-flammable 2 - No



ΙΑΤΑ	
UN Number:	UN 1950
Proper Shipping Name:	Aerosols, non-flammable
Transport Hazard Class(es):	
Class:	2.2
Label(s):	_
Packing Group:	-
Environmental Hazards:	No
Marine Pollutant	No
Special precautions for user: Cargo aircraft only:	Not regulated. Allowed.

#### 15. Regulatory information

#### **US Federal Regulations**

Restrictions on use: Not known.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) None present or none present in regulated quantities.

#### CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
Ethanol	lbs. 100
Propane	lbs. 100
Butane	lbs. 100
Morpholine	lbs. 100
2-Propanol, 2-methyl-	lbs. 100
1,3-Benzodioxole, 5-(2-	lbs. 100
propen-1-yl)-	
1,2-Benzenedicarboxylic	lbs. 1000
acid, 1,2-diethyl ester	
1,2-Ethanediamine	lbs. 5000
Morpholine, 4-ethyl-	lbs. 100
Ethanone, 1-phenyl-	lbs. 5000

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

### Hazard categories

Not listed.

### SARA 302 Extremely Hazardous Substance

Chemical Identity	<u>Reportable</u> quantity	Threshold Planning Quantity
Amides, coco, N,N- bis(hydroxyethyl)		
1,2-Ethanediamine Stoddard solvent	lbs. 5000	lbs. 10000

#### SARA 304 Emergency Release Notification

Chemical Identity	Reportable quantity
Ethanol	lbs. 100
Ethanol, 2-butoxy-	
Propane	lbs. 100
Butane	lbs. 100
Morpholine	lbs. 100
2-Propanol, 2-methyl-	lbs. 100
Amides, coco, N,N-	
bis(hydroxyethyl)	
LIS - RE100001301	



1,3-Benzodioxole, propen-1-yl)- 1,2-Benzenedicarbo acid, 1,2-diethyl est Ethanol, 2-methoxy	oxylic er	lbs. 100 lbs. 1000	
1,2-Ethanediamine		lbs. 5000	
Morpholine, 4-ethyl-		lbs. 100	
Ethanone, 1-phenyl	-	lbs. 5000	
Stoddard solvent			
SARA 311/312 Haza	rdous	Chemical	
Chemical Identity		Threshold P	la
Chemical Identity 1,2-Ethanediamine		<u>Threshold P</u> lbs	la
			la
1,2-Ethanediamine		lbs	la
1,2-Ethanediamine Ethanol		lbs 10000 lbs	la
1,2-Ethanediamine Ethanol Ethanol, 2-butoxy-		lbs 10000 lbs 10000 lbs	la
1,2-Ethanediamine Ethanol Ethanol, 2-butoxy- Propane		lbs 10000 lbs 10000 lbs 10000 lbs	<u>la</u>
1,2-Ethanediamine Ethanol Ethanol, 2-butoxy- Propane Butane	yl-	lbs 10000 lbs 10000 lbs 10000 lbs 10000 lbs	la
1,2-Ethanediamine Ethanol Ethanol, 2-butoxy- Propane Butane Morpholine	•	lbs 10000 lbs 10000 lbs 10000 lbs 10000 lbs 10000 lbs	laı
1,2-Ethanediamine Ethanol Ethanol, 2-butoxy- Propane Butane Morpholine 2-Propanol, 2-methy	nethyl	lbs 10000 lbs 10000 lbs 10000 lbs 10000 lbs 10000 lbs 10000 lbs	<u>'laı</u>

SARA 311/312 Hazardous Chemical		
Chemical Identity	Threshold Planning Quantity	
1,2-Ethanediamine	lbs	
Ethanol	10000 lbs	
Ethanol, 2-butoxy-	10000 lbs	
Propane	10000 lbs	
Butane	10000 lbs	
Morpholine	10000 lbs	
2-Propanol, 2-methyl-	10000 lbs	
Acetic acid, phenylmethyl ester	10000 lbs	
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	10000 lbs	
Ethanol, 2-methoxy-	10000 lbs	
Benzene, 1,1'-oxybis-	10000 lbs	
Morpholine, 4-ethyl-	10000 lbs	
Ethanone, 1-phenyl-	10000 lbs	
Stoddard solvent	10000 lbs	

#### SARA 313 (TRI Reporting)

	<u>Reporting</u>	Reporting threshold for
	threshold for	manufacturing and
Chemical Identity	other users	processing
Ethanol, 2-butoxy-	N230 lbs	N230 lbs.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3) **US State Regulations**

#### US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

#### US. New Jersey Worker and Community Right-to-Know Act

### **Chemical Identity**

Ethanol Ethanol, 2-butoxy-Propane **Butane** 

#### US. Massachusetts RTK - Substance List

#### **Chemical Identity**

1,3-Benzodioxole, 5-(2-propen-1-yl)-1,2-Ethanediamine

#### US. Pennsylvania RTK - Hazardous Substances

### **Chemical Identity** Ethanol

Ethanol, 2-butoxy-Propane Butane



#### US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

#### International regulations

Montreal protocol Not applicable

Stockholm convention Not applicable

Rotterdam convention Not applicable

Kyoto protocol Not applicable

Inventory Status:	
Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	Not in compliance with the inventory.
EINECS, ELINCS or NLP:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Mexico INSQ:	Not in compliance with the inventory.
Ontario Inventory:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory

#### 16.Other information, including date of preparation or last revision

Issue Date:	10/14/2019
Revision Information:	No data available.
Version #:	1.0
Further Information:	No data available.
Disclaimer:	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.