



# SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

## 1. Identification

**Product identifier:** HEAVY DUTY INDUSTRIAL FOAM DEGREASER 2 - SW-599

**Other means of identification**

**SDS number:** RE1000044316

**Recommended restrictions**

**Recommended use:** Cleaner

**Restrictions on use:** Not known.

**Manufacturer Information**

**Manufacturer**

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

**Emergency telephone number:** 1-866-836-8855

## 2. Hazard(s) identification

**Hazard Classification**

**Physical Hazards**

Flammable aerosol Category 1

**Health Hazards**

Skin Corrosion/Irritation Category 2  
Serious Eye Damage/Eye Irritation Category 2A  
Skin sensitizer Category 1

**Environmental Hazards**

Acute hazards to the aquatic environment Category 3

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** Extremely flammable aerosol.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
Harmful to aquatic life.



### Precautionary Statements

- Prevention:** 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. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
- Response:** 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 advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see on this label). Wash contaminated clothing before reuse.
- Storage:** Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
- Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Hazard(s) not otherwise classified (HNOC):** None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Butane	106-97-8	5 - <10%
Distillates (petroleum), hydrotreated light	64742-47-8	1 - <2.5%
Polyethylene glycol mono(branched p-nonylphenyl) ether	127087-87-0	1 - <5%
Propane	74-98-6	1 - <5%
Silicic acid (H <sub>2</sub> SiO <sub>3</sub> ), sodium salt (1:2)	6834-92-0	1 - <3%
2-Propanol	67-63-0	1 - <5%
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	5989-27-5	0.1 - <1%
Ethanol, 2-butoxy-	111-76-2	0.1 - <1%
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.

**Composition Comments:** The components are not hazardous or are below required disclosure limits.

The exact concentration has been withheld as a trade secret.

### 4. First-aid measures

#### Description of necessary first-aid measures

- Inhalation:** Move to fresh air.
- Skin Contact:** Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.



**Ingestion:** Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

**Personal Protection for First-aid Responders:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Get medical attention if symptoms occur.

**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 without risk.

**Suitable (and unsuitable) extinguishing 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:** Vapors may travel considerable distance to a source of ignition and flash back.

**Special protective equipment and 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.

**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. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

**Accidental release measures:** Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

**Methods and material for containment and cleaning up:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.



**Environmental Precautions:** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

**7. Handling and storage**

**Handling**

**Technical measures (e.g. Local and general ventilation):** No data available.

**Safe handling advice:** Avoid contact with eyes. Wash hands thoroughly after 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. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.

**Contact avoidance measures:** No data available.

**Storage**

**Safe storage conditions:** Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 1

**Safe packaging materials:** No data available.

**Storage Temperature:** No data available.

**8. Exposure controls/personal protection**

**Control Parameters  
Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Butane	REL	800 ppm 1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	STEL	1,000 ppm	US. ACGIH Threshold Limit Values, as amended
	TWA	800 ppm 1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Distillates (petroleum), hydrotreated light	REL	100 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	200 mg/m3	US. ACGIH Threshold Limit Values, as amended
Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	US. ACGIH Threshold Limit Values, as amended
	REL	1,000 ppm 1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	1,000 ppm 1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Propane	TWA	1,000 ppm 1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	500 ppm 1,225 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	200 ppm	US. ACGIH Threshold Limit Values, as amended
2-Propanol	REL	400 ppm 980 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	400 ppm 980 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	400 ppm 980 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	400 ppm	US. ACGIH Threshold Limit Values, as amended
	STEL	500 ppm 1,225 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	20 ppm	US. ACGIH Threshold Limit Values, as amended
Ethanol, 2-butoxy-	REL	5 ppm 24 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	50 ppm 240 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	25 ppm 120 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Morpholine	REL	20 ppm 70 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	STEL	30 ppm 105 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	20 ppm	US. ACGIH Threshold Limit Values, as amended



	TWA	20 ppm	70 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	30 ppm	105 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL	20 ppm	70 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
1,2-Ethanediol	Ceiling	50 ppm	125 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
1,2-Ethanediol - Vapor fraction	TWA	25 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	50 ppm		US. ACGIH Threshold Limit Values, as amended
1,2-Ethanediol - Aerosol, inhalable.	STEL		10 mg/m3	US. ACGIH Threshold Limit Values, as amended
Ethanol, 2-ethoxy-	TWA	5 ppm		US. ACGIH Threshold Limit Values, as amended
	REL	0.5 ppm	1.8 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	200 ppm	740 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	200 ppm	740 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Sodium hydroxide (Na(OH))	Ceil_Time		2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL		2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	Ceiling		2 mg/m3	US. ACGIH Threshold Limit Values, as amended
	Ceiling		2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Benzene, dimethyl-	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	100 ppm		US. ACGIH Threshold Limit Values, as amended
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	STEL	150 ppm	655 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	150 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Oxirane	Ceil_Time	5 ppm	9 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	1 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	STEL	5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	OSHA_ACT	0.5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	REL	0.1 ppm	0.18 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	1 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	1 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	5 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
1,4-Dioxane	TWA	25 ppm	90 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceil_Time	1 ppm	3.6 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended
	PEL	100 ppm	360 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Acetic acid	STEL	15 ppm	37 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	10 ppm	25 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	REL	10 ppm	25 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	10 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	10 ppm	25 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	15 ppm		US. ACGIH Threshold Limit Values, as amended
Ethanol, 2-methoxy-	TWA	0.1 ppm		US. ACGIH Threshold Limit Values, as amended
	REL	0.1 ppm	0.3 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	25 ppm	80 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL	25 ppm	80 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
1,2-Ethanediamine	TWA	10 ppm		US. ACGIH Threshold Limit Values, as amended
	PEL	10 ppm	25 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	10 ppm	25 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	10 ppm	25 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene	REL	0.1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	1 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceiling	25 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	TWA	0.5 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	2.5 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	OSHA_ACT	0.5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended



	TWA	10 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	MAX. CONC	50 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	STEL	5 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	1 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	STEL	1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards, as amended

### Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
2-Propanol (acetone: Sampling time: End of shift at end of work week.)	40 mg/l (Urine)	ACGIH BEL
Ethanol, 2-butoxy- (Butoxyacetic acid (BAA), with hydrolysis: Sampling time: End of shift.)	200 mg/g (Creatinine in urine)	ACGIH BEL
Ethanol, 2-ethoxy- (2-Ethoxyacetic acid: Sampling time: End of shift at end of work week.)	100 mg/g (Creatinine in urine)	ACGIH BEL
Benzene, dimethyl- (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in urine)	ACGIH BEL
Oxirane (N-(2-hydroxyethyl)-valine (HEV) hemoglobin adducts: Sampling time: Not critical.)	5000 pmol/g (Hemoglobin adducts)	ACGIH BEL
Oxirane (S-(2-hydroxyethyl) mercapturic acid (HEMA): Sampling time: End of shift.)	5 µg/g (Creatinine in urine)	ACGIH BEL
Ethanol, 2-methoxy- (2-Methoxyacetic acid: Sampling time: End of shift at end of work week.)	1 mg/g (Creatinine in urine)	ACGIH BEL
Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEL
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL

### Exposure guidelines

Distillates (petroleum), hydrotreated light	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
Morpholine	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
Ethanol, 2-ethoxy-	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
1,4-Dioxane	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
Ethanol, 2-methoxy-	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
1,2-Ethanediamine	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
Benzene	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.

**Appropriate Engineering Controls** No data available.

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

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

#### Skin Protection

**Hand Protection:** No data available.

**Skin and Body Protection:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

**Hygiene measures:** Avoid contact with eyes. Observe good industrial hygiene practices. When using do not smoke. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.



## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	Spray Aerosol
<b>Color:</b>	No data available.
<b>Odor:</b>	No data available.
<b>Odor Threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Boiling Point:</b>	No data available.
<b>Flash Point:</b>	-104.44 °C
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	3,102.6408 - 4,481.5922 hPa (20 °C)
<b>Vapor density (air=1):</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	No data available.
<b>Solubility in Water:</b>	No data available.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Self Ignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	No data available.
<b>Kinematic viscosity:</b>	No data available.
<b>Dynamic viscosity:</b>	No data available.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	No data available.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	No data available.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.



**Eye contact:** No data available.

**Ingestion:** No data available.

**Symptoms related to the physical, 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 effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**

**Product:** ATEmix: 37,850 mg/kg

**Dermal**

**Product:** ATEmix: 98,548.37 mg/kg

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Repeated dose toxicity**

**Product:** No data available.

**Components:**

- Butane  
LOAEL (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
- Distillates (petroleum), hydrotreated light  
NOAEL (Rat(Female, Male), Inhalation): >= 24 mg/m3 Inhalation Experimental result, Key study  
NOAEL (Rat(Female), Oral, 70 - 147 d): 750 mg/kg Oral Experimental result, Key study
- Propane  
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
- Silicic acid (H<sub>2</sub>SiO<sub>3</sub>), sodium salt (1:2)  
NOAEL (Mouse(Female, Male), Oral, 90 d): 260 mg/kg Oral Experimental result, Key study
- 2-Propanol  
NOAEL (Rat, Inhalation, >= 104 Weeks): 5,000 ppm(m) Inhalation Experimental result, Key study
- Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-  
NOAEL (Rat(Male), Oral, 13 Weeks): 600 mg/kg Oral Experimental result, Key study
- Ethanol, 2-butoxy-  
NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study  
NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study  
NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study
- Morpholine  
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 study



### Skin Corrosion/Irritation

**Product:** No data available.

#### Components:

Distillates (petroleum), hydrotreated light	in vivo (Rabbit): Not irritant
Polyethylene glycol mono(branched p-nonylphenyl) ether	Assessment Irritating.
Silicic acid (H <sub>2</sub> SiO <sub>3</sub> ), sodium salt (1:2)	in vivo (Rabbit): Corrosive
2-Propanol	in vivo (Rabbit): Not Classified
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	in vivo (Rabbit): Not irritant
Ethanol, 2-butoxy-	in vivo (Rabbit): Irritating
Morpholine	in vivo (Rabbit): Corrosive

### Serious Eye Damage/Eye Irritation

**Product:** No data available.

#### Components:

Distillates (petroleum), hydrotreated light	Rabbit, 24 - 72 hrs: Not irritating
2-Propanol	Rabbit, 1 d: Category 2: Causes serious eye irritation Irritating.
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	Rabbit, 24 - 72 hrs: Not irritating
Ethanol, 2-butoxy-	Rabbit, 24 - 72 hrs: Irritating

### Respiratory or Skin Sensitization

**Product:** No data available.

#### Components:

Distillates (petroleum), hydrotreated light	Skin sensitization:, in vivo (Guinea pig): Non sensitising
2-Propanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Ethanol, 2-butoxy-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Morpholine	Skin sensitization:, in vivo (Guinea pig): Non sensitising

### Carcinogenicity

**Product:** No data available.

### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogenic components 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.

**Components:**

2-Propanol Narcotic effect. - Category 3 with narcotic effects.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Components:**

Distillates (petroleum), hydrotreated light May be fatal if swallowed and enters airways.

**Other effects:** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Components:**

Butane LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study

Polyethylene glycol mono(branched p-nonylphenyl) ether LC 50 (96 h): 84.7 mg/l European Chemicals Agency, <http://echa.europa.eu/> - REACH registration dossiers submitted by companies to ECHA

Propane LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study

Silicic acid (H<sub>2</sub>SiO<sub>3</sub>), sodium salt (1:2) LC 50 (Danio rerio, 96 h): 210 mg/l Experimental result, Key study  
LC 0 (Danio rerio, 96 h): 180 mg/l Experimental result, Key study

2-Propanol LC 50 (Pimephales promelas, 96 h): 9,640 mg/l Experimental result, Key study

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- EC 50 (Pimephales promelas, 96 h): 688 µg/l Experimental result, Key study

Ethanol, 2-butoxy- LC 50 (Oncorhynchus mykiss, 96 h): 1,474 mg/l Experimental result, Key study

Morpholine LC 50 (Oncorhynchus mykiss, 96 h): 180 mg/l Experimental result, Key study

**Aquatic Invertebrates**

**Product:** No data available.

**Components:**

Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Polyethylene glycol mono(branched p-nonylphenyl) ether	EC 50 (48 h): 23.06 mg/l European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> - REACH registration dossiers submitted by companies to ECHA
Silicic acid (H <sub>2</sub> SiO <sub>3</sub> ), sodium salt (1:2)	EC 50 (Daphnia magna, 48 h): 1,700 mg/l Read-across based on grouping of substances (category approach), Key study ED 0 (Daphnia magna, 48 h): 100 mg/l Read-across based on grouping of substances (category approach), Key study
2-Propanol	LC 50 (Daphnia magna, 24 h): > 10,000 mg/l Experimental result, Key study
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	EC 50 (Daphnia magna, 48 h): 0.36 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.074 mg/l Experimental result, Key study
Ethanol, 2-butoxy-	EC 50 (Daphnia magna, 48 h): 1,550 mg/l Experimental result, Key study
Morpholine	EC 50 (Daphnia magna, 48 h): 45 mg/l Experimental result, Key study

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Components:**

Distillates (petroleum), hydrotreated light	NOAEL (Oncorhynchus mykiss): 0.098 mg/l QSAR QSAR, Key study
Ethanol, 2-butoxy-	NOAEL (Danio rerio): > 100 mg/l Experimental result, Key study

**Aquatic Invertebrates**

**Product:** No data available.

**Components:**

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	NOAEL (Freshwater invertebrates, species frequently include Daphnia magna or Daphnia pulex): 0.115 mg/l QSAR QSAR, Weight of Evidence study
Ethanol, 2-butoxy-	EC 10 (Daphnia magna): 134 mg/l Experimental result, Key study EC 50 (Daphnia magna): 297 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.

**Components:**

Polyethylene glycol mono(branched p-nonylphenyl) ether	EC 50 (72 h): 19.5 mg/l European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> - REACH registration dossiers submitted by companies to ECHA NOEC (96 h): 8 mg/l European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> - REACH registration dossiers submitted by companies to ECHA
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**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**Components:**

Butane	100 % (385.5 h) Detected in water. Experimental result, Key study
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Distillates (petroleum), hydrotreated light	61 % Detected in water. Experimental result, Supporting study
Polyethylene glycol mono(branched p-nonylphenyl) ether	Not readily degradable.
Propane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
2-Propanol	53 % (5 d) Detected in water. Experimental result, Key study
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	80 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study
Ethanol, 2-butoxy-	90.4 % Detected in water. Experimental result, Key study
Morpholine	> 90 % (24 h) Sediment Experimental result, Key study 80 - 94 % (24 h) Sediment Experimental result, Key study

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Components:**

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- Bioconcentration Factor (BCF): 864.8 Aquatic sediment QSAR, Key study

Morpholine Cyprinus carpio, Bioconcentration Factor (BCF): < 2.8 Aquatic sediment Experimental result, Key study

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Components:**

Polyethylene glycol mono(branched p-nonylphenyl) ether Log Kow: 5.669 25 °C

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- Log Kow: 4.34 - 4.46 25 °C No Experimental result, Supporting study

**Mobility in soil:** No data available.

**Components:**

Butane	No data available.
Distillates (petroleum), hydrotreated light	No data available.
Polyethylene glycol mono(branched p-nonylphenyl) ether	No data available.
Propane	No data available.
Silicic acid (H <sub>2</sub> SiO <sub>3</sub> ), sodium salt (1:2)	No data available.
2-Propanol	No data available.
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	No data available.
Ethanol, 2-butoxy-	No data available.
Morpholine	No data available.

**Other adverse effects:** Harmful to aquatic organisms.



### 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws.

**Contaminated Packaging:** No data available.

### 14. Transport information

#### DOT

UN Number: UN 1950  
UN Proper Shipping Name: Aerosols, flammable  
Transport Hazard Class(es)  
Class: 2.1  
Label(s): –  
EmS No.: –  
Packing Group: II  
Special precautions for user: Not regulated.

#### IATA

UN Number: UN 1950  
UN Proper Shipping Name: Aerosols, flammable  
Transport Hazard Class(es):  
Class: 2.1  
Label(s): –  
Packing Group: –  
Special precautions for user: Not regulated.  
Other information  
Passenger and cargo aircraft: Allowed. 203  
Cargo aircraft only: Allowed. 203

#### IMDG

UN Number: UN 1950  
UN Proper Shipping Name: Aerosols, flammable  
Transport Hazard Class(es)  
Class: 2  
Label(s): –  
EmS No.: F-D, S-U  
Packing Group: –  
Special precautions for user: Not regulated.

### 15. Regulatory information

#### US Federal Regulations

**Restrictions on use:** Not known.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

**US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)**

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Oxirane	Skin sensitization
	Acute toxicity
	Cancer
	Reproductive toxicity



Benzene	Mutagenicity Central nervous system Eye irritation Respiratory tract irritation Skin irritation Flammability Flammability Cancer Aspiration Eye Blood Skin Respiratory tract irritation Central nervous system
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**CERCLA Hazardous Substance List (40 CFR 302.4):**

**Chemical Identity**

UNLISTED HAZARDOUS WASTES CHARACTERISTIC OF IGNITABILITY  
 RCRA HAZARDOUS WASTE NO. D001  
 Distillates (petroleum), hydrotreated light  
 GLYCOL ETHERS  
 SODIUM PHOSPHATE, TRIBASIC  
 GLYCOL ETHERS  
 ETHYLENE GLYCOL  
 ETHYLENE GLYCOL MONOETHYL ETHER  
 2-ETHOXYETHANOL  
 SODIUM HYDROXIDE  
 XYLENE (MIXED)  
 ETHYLENE OXIDE  
 OXIRANE  
 1,4-DIETHYLENEOXIDE  
 ACETIC ACID  
 GLYCOL ETHERS  
 ETHYLENEDIAMINE  
 BENZENE

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

**Hazard categories**

Flammable aerosol, Skin Corrosion/Irritation, Serious Eye Damage/Eye Irritation, Skin sensitizer

**US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances**

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

<u>Chemical Identity</u>	<u>% by weight</u>
Ethanol, 2-(2-ethoxyethoxy)-	1.0%
2-Propanol	1.0%

**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**

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



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

**Chemical Identity**

Butane  
Distillates (petroleum), hydrotreated light  
Ethanol, 2-(2-ethoxyethoxy)-  
Propane  
2-Propanol  
Ethanol, 2-butoxy-

**US. Massachusetts RTK - Substance List**

**Chemical Identity**

Glycine, N,N-bis(carboxymethyl)-, sodium salt (1:3)

**US. Pennsylvania RTK - Hazardous Substances**

**Chemical Identity**

Butane  
Distillates (petroleum), hydrotreated light  
Ethanol, 2-(2-ethoxyethoxy)-  
Propane  
2-Propanol

**US. Rhode Island RTK**

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

**International regulations**

**Montreal protocol**

Distillates (petroleum), hydrotreated light

**Stockholm convention**

Distillates (petroleum), hydrotreated light

**Rotterdam convention**

Distillates (petroleum), hydrotreated light

**Kyoto protocol**

**Inventory Status:**

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



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

**Issue Date:** 11/19/2020

**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.