



SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: HEAVY DUTY INDUSTRIAL FOAM DEGREASER - SW-593

Other means of identification

SDS number: RE1000043641

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

Serious Eye Damage/Eye Irritation Category 2A

Skin sensitizer Category 1B

Carcinogenicity Category 2

Environmental Hazards

Acute hazards to the aquatic environment Category 2

Chronic hazards to the aquatic environment Category 2

Label Elements

Hazard Symbol:



Signal Word:

Danger



Hazard Statement: Extremely flammable aerosol.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
Toxic to aquatic life with long lasting effects.

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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. 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. IF exposed or concerned: Get medical advice/attention. Specific treatment (see on this label). Wash contaminated clothing before reuse. Collect spillage.

Storage: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up.

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 (%)*
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	5989-27-5	10 - <25%
Butane	106-97-8	10 - <20%
Propane	74-98-6	5 - <10%
Polyethylene glycol mono(branched p-nonylphenyl) ether	127087-87-0	1 - <5%
Carbonic acid sodium salt (1:1)	144-55-8	1 - <5%
Ethanol, 2,2'-iminobis-	111-42-2	1 - <3%
Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (1:1)	137-16-6	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:	Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/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: Symptoms may be delayed.

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.



- 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:** Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. 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.
- Contact avoidance measures:** No data available.

Storage

- Safe storage conditions:** Store locked up. 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
Propane	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
	TWA	1,000 ppm 1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Ethanol, 2,2'-iminobis-	REL	3 ppm 15 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	3 ppm 15 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Ethanol, 2,2'-iminobis- - Inhalable fraction and vapor.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values, 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/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	30 ppm	105 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL	20 ppm	70 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
1,2-Ethanediol	Ceiling	50 ppm	125 mg/m ³	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/m ³	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/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	200 ppm	740 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	200 ppm	740 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Ethanol, 2-methoxy-	TWA	0.1 ppm		US. ACGIH Threshold Limit Values, as amended
	REL	0.1 ppm	0.3 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	25 ppm	80 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL	25 ppm	80 mg/m ³	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/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	10 ppm	25 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	10 ppm	25 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Morpholine, 4-ethyl-	REL	5 ppm	23 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	5 ppm	23 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL	20 ppm	94 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	5 ppm		US. ACGIH Threshold Limit Values, as amended
Oxirane	Ceil_Time	5 ppm	9 mg/m ³	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/m ³	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/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceil_Time	1 ppm	3.6 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended
	PEL	100 ppm	360 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Acetic acid	STEL	15 ppm	37 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	10 ppm	25 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	REL	10 ppm	25 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	10 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	10 ppm	25 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	15 ppm		US. ACGIH Threshold Limit Values, as amended

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Ethanol, 2-ethoxy- (2-Ethoxyacetic acid: Sampling time: End of shift at end of work week.)	100 mg/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
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
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Exposure guidelines

Ethanol, 2,2'-iminobis-	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.
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.
Morpholine, 4-ethyl-	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.

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: No data available.

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

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. When using do not smoke.

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:	No data available.
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	-104.44 °C
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	3,102.6408 - 4,481.5922 hPa (20 °C)
Vapor density (air=1):	No data available.
Density:	No data available.
Relative density:	No data available.
Solubility in Water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Self Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.



Kinematic viscosity:	No data available.
Dynamic viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	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.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Skin Contact:	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: 19,733.43 mg/kg
Dermal Product:	ATEmix: 202,055.81 mg/kg
Inhalation Product:	ATEmix: 60.05 mg/l Vapour ATEmix : 5 mg/l Dusts, mists and fumes

Repeated dose toxicity Product:	No data available.
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Components:

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-Butane	NOAEL (Rat(Male), Oral, 13 Weeks): 600 mg/kg Oral 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): 4,000 ppm(m) Inhalation 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
Ethanol, 2,2'-iminobis-	LOAEL (Rat(Female), Oral, 13 Weeks): 14 mg/kg Oral Experimental result, Key study LOAEL (Rat(Female, Male), Dermal, 13 Weeks): 32 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 3 mg/m3 Inhalation Experimental result, Key study
Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (1:1)	NOAEL (Rat(Female, Male), Oral, >= 91 d): 30 mg/kg Oral 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:

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	in vivo (Rabbit): Not irritant
Polyethylene glycol mono(branched p-nonylphenyl) ether	Assessment Irritating.
Carbonic acid sodium salt (1:1)	Assessment Not Classified
Ethanol, 2,2'-iminobis-	Irritating.
Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (1:1)	Assessment Irritating in vivo (Rabbit): Not irritant
Morpholine	in vivo (Rabbit): Corrosive

Serious Eye Damage/Eye Irritation

Product: No data available.

Components:

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	Rabbit, 24 - 72 hrs: Not irritating
Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (1:1)	Rabbit, 24 - 72 hrs: Irritating

Respiratory or Skin Sensitization

Product: No data available.

Components:

Ethanol, 2,2'-iminobis-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
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Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (1:1) 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:

Ethanol, 2,2'-iminobis- Overall evaluation: 2B. Possibly carcinogenic to humans.

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

Ethanol, 2,2'-iminobis- Overall evaluation: 2B. Possibly carcinogenic to humans.

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.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Components:

Ethanol, 2,2'-iminobis- Category 2

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.

Components:

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

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

Propane 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
Carbonic acid sodium salt (1:1)	NOAEL (Lepomis macrochirus, 96 h): 5,200 mg/l Experimental result, Key study LC 50 (Lepomis macrochirus, 96 h): 7,100 mg/l Experimental result, Key study
Ethanol, 2,2'-iminobis-	LC 50 (Pimephales promelas, 96 h): 1,370 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:

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
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, http://echa.europa.eu/ - REACH registration dossiers submitted by companies to ECHA
Carbonic acid sodium salt (1:1)	EC 50 (Daphnia magna, 48 h): 4,100 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 3,100 mg/l Experimental result, Key study
Ethanol, 2,2'-iminobis-	EC 50 (Daphnia magna, 48 h): 55 mg/l Experimental result, Supporting study EC 50 (Ceriodaphnia dubia, 48 h): 30.1 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: NOEC (Fish, 28 d): estimated < 0.1 mg/l

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
Carbonic acid sodium salt (1:1)	NOAEL (Daphnia magna): > 576 mg/l Experimental result, Key study
Ethanol, 2,2'-iminobis-	NOAEL (Daphnia magna): 0.78 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, <http://echa.europa.eu/> - REACH registration dossiers submitted by companies to ECHA
NOEC (96 h): 8 mg/l European Chemicals Agency, <http://echa.europa.eu/> - REACH registration dossiers submitted by companies to ECHA

Persistence and Degradability

Biodegradation

Product: 60 % (28 d) Readily biodegradable

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

Ethanol, 2,2'-iminobis- Bioconcentration Factor (BCF): 9.2 Aquatic sediment Estimated by calculation, Weight of Evidence 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:

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

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

Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (1:1) Log Kow: 0.37

Mobility in soil: No data available.

Components:

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- No data available.

Butane No data available.

Propane No data available.

Polyethylene glycol mono(branched p-nonylphenyl) ether No data available.

Carbonic acid sodium salt (1:1) No data available.

Ethanol, 2,2'-iminobis- No data available.

Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (1:1) No data available.

Morpholine No data available.

Other adverse effects: Toxic to aquatic life with long lasting effects.

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

Chemical Identity

Oxirane

OSHA hazard(s)

Skin sensitization
Acute toxicity
Cancer
Reproductive toxicity
Mutagenicity
Central nervous system
Eye irritation
Respiratory tract irritation
Skin irritation
Flammability



CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity

UNLISTED HAZARDOUS WASTES CHARACTERISTIC OF IGNITABILITY
RCRA HAZARDOUS WASTE NO. D001
GLYCOL ETHERS
DIETHANOLAMINE
ETHYLENE GLYCOL
ETHYLENE GLYCOL MONOETHYL ETHER
2-ETHOXYETHANOL
GLYCOL ETHERS
ETHYLENEDIAMINE
ETHYLENE OXIDE
OXIRANE
1,4-DIETHYLENEOXIDE
ACETIC ACID

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

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

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%
Ethanol, 2,2'-iminobis-	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.

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

Chemical Identity

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-
Butane
Propane
Ethanol, 2-(2-ethoxyethoxy)-
Ethanol, 2,2'-iminobis-

US. Massachusetts RTK - Substance List

Chemical Identity

1,2-Ethanediamine
Oxirane
1,4-Dioxane

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Butane
Propane
Ethanol, 2-(2-ethoxyethoxy)-
Ethanol, 2,2'-iminobis-



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	On or 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	Not 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	Not 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: 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.