

Precautionary Statements

- Prevention:** Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. 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.
- Storage:** Protect from sunlight. Store in a well-ventilated place.
- 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 (%)*
Ethanol, 2-butoxy-	111-76-2	1 - <5%
Alcohols, C9-11, ethoxylated	68439-46-3	1 - <3%
Butane	106-97-8	1 - <5%
Propane	74-98-6	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: 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.

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.

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	
Ethanol, 2-butoxy-	TWA	20 ppm	US. ACGIH Threshold Limit Values, as amended	
	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	
	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	
	Ammonium hydroxide ((NH4)(OH))	STEL	35 ppm	US. ACGIH Threshold Limit Values, as amended
		TWA	25 ppm	US. ACGIH Threshold Limit Values, as amended
STEL		35 ppm 27 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended	
	STEL	35 ppm 27 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended	
	REL	25 ppm 18 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended	
	PEL	50 ppm 35 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended	
Acetic acid, phenylmethyl ester	TWA	10 ppm	US. ACGIH Threshold Limit Values, 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, 1,1'-oxybis- - Vapor.	STEL	2 ppm	US. ACGIH Threshold Limit Values, as amended	
	TWA	1 ppm	US. ACGIH Threshold Limit Values, as amended	
	REL	1 ppm 7 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended	
	TWA	1 ppm 7 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended	
	PEL	1 ppm 7 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended	
	Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- - Inhalable fraction and vapor.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values, as amended
REL		10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended	

	TWA	10 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
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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
Cedrene (1-Hydroxypyrene, with hydrolysis (1-HP): Sampling time: End of shift at end of work week.)	2.5 µg/l (Urine)	ACGIH BEL
Cedrene (3-Hydroxybenzo(a)pyrene, with hydrolysis: Sampling time: End of shift at end of work week.)	(Urine)	ACGIH BEL

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: Avoid contact with eyes. Observe good industrial hygiene practices. 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 (%):** Estimated 9.5 %(V)
- Explosive limit - lower (%):** Estimated 1.9 %(V)
- Vapor pressure:** Estimated 2,757 - 4,136 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: 46,153.85 mg/kg
Dermal Product:	ATEmix: 17,631.51 mg/kg
Inhalation Product:	ATEmix: 528.68 mg/l Vapour ATEmix : 132.17 mg/l Dusts, mists and fumes

Repeated dose toxicity Product:	No data available.
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Components:

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
Alcohols, C9-11, ethoxylated Butane	NOAEL (Rat(Female, Male), Oral, 90 d): >= 500 mg/kg Oral Read-across based on grouping of substances (category approach), 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

Skin Corrosion/Irritation

Product: No data available.

Components:

Ethanol, 2-butoxy-	in vivo (Rabbit): Irritating
Alcohols, C9-11, ethoxylated	in vivo (Rabbit): Not irritant

Serious Eye Damage/Eye Irritation

Product: No data available.

Components:

Ethanol, 2-butoxy-	Rabbit, 24 - 72 hrs: Irritating
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Respiratory or Skin Sensitization

Product: No data available.

Components:

Ethanol, 2-butoxy-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
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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.

Specific Target Organ Toxicity - Repeated Exposure

Product: 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.

Components:

Ethanol, 2-butoxy- LC 50 (Oncorhynchus mykiss, 96 h): 1,474 mg/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

Aquatic Invertebrates

Product: No data available.

Components:

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

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Components:

Ethanol, 2-butoxy- NOAEL (Danio rerio): > 100 mg/l Experimental result, Key study

Alcohols, C9-11, ethoxylated NOAEL (Pimephales promelas): 0.16 mg/l Read-across based on grouping of substances (category approach), Weight of Evidence study

Aquatic Invertebrates

Product: No data available.

Components:

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

Alcohols, C9-11, ethoxylated NOAEL (Daphnia magna): 1.75 mg/l Read-across based on grouping of substances (category approach), Weight of Evidence study

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

Components:

Ethanol, 2-butoxy- 90.4 % Detected in water. Experimental result, Key study

Alcohols, C9-11, ethoxylated 100 % (28 d) Detected in water. Read-across based on grouping of substances (category approach), Weight of Evidence study

Butane 100 % (385.5 h) 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

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Components:

Alcohols, C9-11, ethoxylated Pimephales promelas, Bioconcentration Factor (BCF): 237 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Key study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Components:

Alcohols, C9-11, ethoxylated Log Kow: 3.3 - 3.73 Yes QSAR, Weight of Evidence study

Mobility in soil: No data available.

Components:

Ethanol, 2-butoxy- No data available.
 Alcohols, C9-11, ethoxylated No data available.
 Butane No data available.
 Propane No data available.

Other adverse effects: Toxic 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, non-flammable
Transport Hazard Class(es):	
Class:	2.2
Label(s):	–
EmS No.:	
Packing Group:	II
Special precautions for user:	Not regulated.

IATA

UN Number:	UN 1950
UN Proper Shipping Name:	Aerosols, non-flammable
Transport Hazard Class(es):	
Class:	2.2
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, non-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

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity

GLYCOL ETHERS
 UNLISTED HAZARDOUS WASTES CHARACTERISTIC OF IGNITABILITY
 RCRA HAZARDOUS WASTE NO. D001
 AMMONIUM HYDROXIDE
 SODIUM HYDROXIDE
 POLYNUCLEAR AROMATIC HYDROCARBONS
 POLYCYCLIC ORGANIC MATTER

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable aerosol, Gases under pressure, Serious Eye Damage/Eye Irritation

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-butoxy-	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

No ingredient requiring a warning under CA Prop 65.

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

Chemical Identity
Ethanol, 2-butoxy-
Butane

US. Massachusetts RTK - Substance List

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

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Ethanol, 2-butoxy-
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:

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.
Korea Existing Chemicals Inv. (KECI)	Not in compliance with the inventory.
Canada NDSL Inventory	Not in compliance with the inventory.
US TSCA Inventory	On or in compliance with the inventory
New Zealand Inventory of Chemicals	Not 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.
Australia AICS	On or in compliance with the inventory
China Inv. Existing Chemical Substances	On or in compliance with the inventory
Philippines PICCS	On or 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:	11/18/2020
Revision Information:	No data available.
Version #:	2.0
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.