

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Glass Cleaner
Product code : 0723707821159

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

FEYNLAB INC
860-864 N Ridge Ave
Lombard, Illinois 60148
United States of America
T +1 773 321 2009
info@feynlab.com - www.feynlab.com

1.4. Emergency telephone number

Emergency number : +17733212009

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Specific target organ toxicity (repeated exposure) Category 2 H373 May cause damage to organs through prolonged or repeated exposure

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary statements (GHS US) : P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P314 - Get medical advice/attention if you feel unwell.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
alcohols, C12-14, ethoxylated	CAS-No.: 68439-50-9	1 – 5	Acute Tox. 4 (Inhalation:dust,mist), H332
3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol	CAS-No.: 647-42-7	1 – 5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 STOT RE 2, H373
2-(2-butoxyethoxy)ethanol	CAS-No.: 112-34-5	1 – 5	Eye Irrit. 2A, H319

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapors/spray.

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6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Mixture contains one or more component(s) which have the following colour(s): Colourless White to light yellow On exposure to light: discolours White to off-white Light yellow to colourless On exposure to air: yellow-brown
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Characteristic odour Mild odour Fruity odour Floral odour Pleasant odour Almond odour
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

alcohols, C12-14, ethoxylated (68439-50-9)

LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rat, Male / female, Read-across, Dermal)
LD50 dermal rabbit	> 3000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:
LC50 Inhalation - Rat	> 1600 mg/m ³ (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Read-across, (maximum achievable concentration), Inhalation (aerosol))
ATE US (dust, mist)	1.5 mg/l/4h

3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol (647-42-7)

LD50 oral rat	1750 mg/kg Source: ECHA
LD50 dermal rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Guideline: other:
LC50 Inhalation - Rat	5.2 – 9.9 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity), Guideline: other:, Guideline: other:, Remarks on results: other:
ATE US (oral)	1750 mg/kg body weight
ATE US (vapors)	5.2 mg/l/4h

2-(2-butoxyethoxy)ethanol (112-34-5)

LD50 oral rat	5660 mg/kg
LD50 dermal rabbit	2764 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value, Dermal, 14 day(s))
ATE US (oral)	2410 mg/kg body weight
ATE US (dermal)	2764 mg/kg body weight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified

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Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.

alcohols, C12-14, ethoxylated (68439-50-9)

NOAEL (oral, rat, 90 days)	≥ 500 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
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3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol (647-42-7)

NOAEL (oral, rat, 90 days)	25 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

2-(2-butoxyethoxy)ethanol (112-34-5)

NOAEL (oral, rat, 90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
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Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
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alcohols, C12-14, ethoxylated (68439-50-9)

LC50 - Fish [1]	0.876 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value)
EC50 - Crustacea [1]	0.53 mg/l (EU Method, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
LC50 - Fish [2]	1.2 mg/l Test organisms (species): Cyprinus carpio
EC50 - Crustacea [2]	1.4 mg/l Test organisms (species): Daphnia magna

3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol (647-42-7)

LC50 - Fish [1]	4.84 mg/l Source: ECHA
EC50 - Crustacea [1]	7.84 mg/l Source: ECHA
LOEC (chronic)	4.46 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	2.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

2-(2-butoxyethoxy)ethanol (112-34-5)

LC50 - Fish [1]	1300 mg/l (Equivalent or similar to OECD 203, 96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 100 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

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12.2. Persistence and degradability

alcohols, C12-14, ethoxylated (68439-50-9)

Persistence and degradability	Contains readily biodegradable component(s).
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2-(2-butoxyethoxy)ethanol (112-34-5)

Persistence and degradability	Readily biodegradable in water.
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12.3. Bioaccumulative potential

alcohols, C12-14, ethoxylated (68439-50-9)

BCF - Fish [1]	237 (72 h, Pimephales promelas, Read-across)
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Partition coefficient n-octanol/water (Log Pow)	4.72 (Experimental value, 25 °C)
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Bioaccumulative potential	Does not contain bioaccumulative component(s).
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3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol (647-42-7)

Partition coefficient n-octanol/water (Log Pow)	2.43 Source: ECHA
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2-(2-butoxyethoxy)ethanol (112-34-5)

Partition coefficient n-octanol/water (Log Pow)	1 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 20 °C)
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Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
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12.4. Mobility in soil

alcohols, C12-14, ethoxylated (68439-50-9)

Surface tension	337 mN/m (20 °C, OECD 115: Surface Tension of Aqueous Solutions)
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Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.85 (log Koc, QSAR)
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Ecology - soil	Contains component(s) that adsorb(s) into the soil.
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3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol (647-42-7)

Mobility in soil	1059 Source: EPISUITE
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2-(2-butoxyethoxy)ethanol (112-34-5)

Surface tension	27 mN/m (25 °C, 0.00212 mol/g)
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Ecology - soil	Highly mobile in soil.
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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

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SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
14.1. UN number		
Not regulated for transport		
14.2. Proper Shipping Name		
Not applicable	Not applicable	Not applicable
Transport document description		
Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Not applicable	Not applicable	Not applicable
No supplementary information available		

14.6. Special precautions for user

DOT

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
alcohols, C12-14, ethoxylated	68439-50-9	Present	Active	XU
3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol	647-42-7	Present	Active	XU
2-(2-butoxyethoxy)ethanol	112-34-5	Present	Active	XU

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15.2. International regulations

CANADA

alcohols, C12-14, ethoxylated (68439-50-9)

Listed on the Canadian DSL (Domestic Substances List)

3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol (647-42-7)

Listed on the Canadian DSL (Domestic Substances List)

2-(2-butoxyethoxy)ethanol (112-34-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

2-(2-butoxyethoxy)ethanol (112-34-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

No additional information available

SECTION 16: Other information

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Revision date : 03/23/2022

Full text of H-phrases

H227	Combustible liquid
H302	Harmful if swallowed
H319	Causes serious eye irritation
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.