

**ONE SEVEN CLASS B (FFF) 0.5%**

Date of compilation: 08/03/2022

Revised: 09/03/2026

Version: 7 (Replaced 6)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier:** ONE SEVEN CLASS B (FFF) 0.5%**Other means of identification:****UFI:** DG70-X0CD-8001-C04W**1.2 Relevant identified uses of the substance or mixture and uses advised against:**

Relevant uses (Professional users): Fire-extinguishing

For Professional users only.

Application rate: 0.5-1% for use on Class A and Class B fires (solids and hydrocarbon fires) with low and medium expansion devices.

At concentration recommended the product IS NOT LISTED AS HAZARDOUS.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

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1.4 Emergency telephone number: +34 985 30 71 45 - Hours: 8:00 to 17:00 Monday to Friday (except holidays).
+34 620 80 86 17 – 24 hour**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture:****CLP Regulation (EC) No 1272/2008:**

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Sens. 1B: Sensitisation, skin, Category 1B, H317

2.2 Label elements:**CLP Regulation (EC) No 1272/2008:****Danger****Hazard statements:**

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Eye Dam. 1: H318 - Causes serious eye damage.

Skin Sens. 1B: H317 - May cause an allergic skin reaction.

Precautionary statements:

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SECTION 2: HAZARDS IDENTIFICATION (continued)

P261: Avoid breathing vapours
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/respiratory protection/eye protection/protective footwear.
P302+P352: IF ON SKIN: Wash with plenty of water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a poison center/doctor.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Substances that contribute to the classification

Sulfuric acid, mono-C12-14 (pairs) -alkyl esters, compds. with triethanolamine; (carboxymethyl)dimethyl-3-[(1-oxododecyl) amino]propylammonium hydroxide; 1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-C12-18 acyl derivs., inner salts; N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-β-alanine; Sodium octyl sulphate

UFI: DG70-X0CD-8001-C04W**2.3 Other hazards:**

Product does not meet PBT/vPvB criteria

Endocrine-disrupting properties: The product does not meet the criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Not relevant

3.2 Mixture:**Chemical description:** Aqueous mixture of hydrocarbon surfactants, solvents and additives**Components:**

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 112-34-5 EC: 203-961-6 Index: 603-096-00-8 REACH: 01-2119475104-44-XXXX	2-(2-butoxyethoxy)ethanol⁽¹⁾	ATP CLP00	20 - <30%
	Regulation 1272/2008	Eye Irrit. 2: H319 - Warning	
CAS: 90583-18-9 EC: 939-265-0 Index: Not relevant REACH: 01-2119970645-28-xxxx	Sulfuric acid, mono-C12-14 (pairs) -alkyl esters, compds. with triethanolamine⁽¹⁾	Self-classified	3 - <10%
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	
CAS: 4292-10-8 EC: 224-292-6 Index: Not relevant REACH: 01-2119487970-25-XXXX	(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide⁽¹⁾	Self-classified	3 - <10%
	Regulation 1272/2008	Aquatic Chronic 3: H412; Eye Dam. 1: H318 - Danger	
CAS: 1469983-50-3 EC: 939-457-4 Index: Not relevant REACH: 01-2119970901-34-XXXX	1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-C12-18 acyl derivs., inner salts⁽¹⁾	Self-classified	1 - <3%
	Regulation 1272/2008	Aquatic Chronic 2: H411; Eye Dam. 1: H318 - Danger	
CAS: 64265-45-8 EC: 264-761-2 Index: Not relevant REACH: 01-2120769114-55-XXXX	N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-β-alanine⁽¹⁾	Self-classified	1 - <3%
	Regulation 1272/2008	Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Sens. 1B: H317 - Warning	
CAS: 142-31-4 EC: 205-535-5 Index: Not relevant REACH: 01-2119966154-35-XXXX	Sodium octyl sulphate⁽¹⁾	Self-classified	1 - <3%
	Regulation 1272/2008	Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name/Classification	Concentration
CAS: 111-42-2 EC: 203-868-0 Index: 603-071-00-1 REACH: 01-2119488930-28-XXXX	2,2'-iminodiethanol⁽¹⁾ Regulation 1272/2008 Acute Tox. 4: H302; Eye Dam. 1: H318; Repr. 2: H361; Skin Irrit. 2: H315; STOT RE 2: H373 - Danger Self-classified 	0.1 - <1%

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
Sulfuric acid, mono-C12-14 (pairs) -alkyl esters, compds. with triethanolamine CAS: 90583-18-9 EC: 939-265-0	% (w/w) >=20: Eye Dam. 1 - H318 10<= % (w/w) <20: Eye Irrit. 2 - H319
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide CAS: 4292-10-8 EC: 224-292-6	% (w/w) >=10: Eye Dam. 1 - H318 4<= % (w/w) <10: Eye Irrit. 2 - H319
Sodium octyl sulphate CAS: 142-31-4 EC: 205-535-5	% (w/w) >=20: Eye Dam. 1 - H318 10<= % (w/w) <20: Eye Irrit. 2 - H319

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity	Genus
Sulfuric acid, mono-C12-14 (pairs) -alkyl esters, compds. with triethanolamine CAS: 90583-18-9 EC: 939-265-0	LD50 oral	1063 mg/kg
	LD50 dermal	Not relevant
	LC50 inhalation vapour	Not relevant
2,2'-iminodiethanol CAS: 111-42-2 EC: 203-868-0	LD50 oral	1100 mg/kg
	LD50 dermal	Not relevant
	LC50 inhalation vapour	Not relevant

ONE SEVEN CLASS B (FFF) 0.5% does not contain any persistent organic chemicals such as fluorinated organic substances (PFAS) or siloxanes (D4, D5 and D6).

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

May cause an allergic skin reaction. In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes on the skin (stinging, redness, rashes, blisters), seek medical advice with this Safety Data Sheet

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

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SECTION 4: FIRST AID MEASURES (continued)

Not relevant

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media:****Suitable extinguishing media:**

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC)

Unsuitable extinguishing media:

Water jet

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EEC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.

Spillages in water or sea:

Small spillages:

Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.

Large spillages:

If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

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SECTION 7: HANDLING AND STORAGE (continued)**7.1 Precautions for safe handling:****A.- General precautions for safe use**

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:**A.- Specific storage requirements**

Minimum Temp.: 0 °C

Maximum Temp.: 50 °C

Maximum time: 60 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Other information:

Technical storage measures applicable to supply containers

7.3 Specific end use(s):

Foam concentrate for use in fire fighting.

Exclusive professional use.

Application rate: 0.5-1% for use on Class A and Class B fires (solids and hydrocarbon fires) with low and medium expansion devices.

Observe handling instructions for preparing ready-to-use mixtures and for using the solutions.

Observe technical data sheet.

Recommended temperatures for use between -15°C and + 50°C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	IOELV (8h)	10 ppm	67,5 mg/m ³
	IOELV (STEL)	15 ppm	101,2 mg/m ³

8.2 Exposure controls:**A.- Individual protection measures, such as personal protective equipment**

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours (Filter type: A)	 CAT III	EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.4 mm)	 CAT III	EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	 CAT II	EN ISO 16321-1:2022 + EN ISO 16321-3:2022 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing	 CAT I		Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes	 CAT II	EN ISO 20347:2022/A1:2024	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2022 y EN 13832-1:2019

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:

Liquid

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Appearance: Not relevant *

Colour: Green

Odour: Characteristic

Odour threshold: Not relevant *

Volatility:

Boiling point at atmospheric pressure: 126 °C

Vapour pressure at 20 °C: 2214 Pa

Vapour pressure at 50 °C: 11667,03 Pa (11,67 kPa)

Evaporation rate at 20 °C: Not relevant *

Product description:Density at 20 °C: 1082 - 1102 kg/m³

Relative density at 20 °C: 1,082 - 1,102

Dynamic viscosity at 20 °C: ≤60 mPa·s

Kinematic viscosity at 20 °C: ≤60 mm²/sKinematic viscosity at 40 °C: ≤30 mm²/s

Concentration: Not relevant *

pH: 7 - 9

Vapour density at 20 °C: Not relevant *

Partition coefficient n-octanol/water 20 °C: Not relevant *

Solubility in water at 20 °C: Not relevant *

Solubility properties: Water-soluble

Decomposition temperature: Not relevant *

Melting point/freezing point: ≤-15 °C

Flammability:

Flash Point: >100 °C (Does not maintain combustion)

Flammability (solid, gas): Not relevant *

Autoignition temperature: 204 °C

Lower flammability limit: Not relevant *

Upper flammability limit: Not relevant *

Particle characteristics:

Median equivalent diameter: Not relevant *

9.2 Other information:**Information with regard to physical hazard classes:**

Explosive properties: Not relevant *

Oxidising properties: Not relevant *

Corrosive to metals: Not relevant *

Heat of combustion: Not relevant *

Aerosols-total percentage (by mass) of flammable components: Not relevant *

Other safety characteristics:

Surface tension at 20 °C: Not relevant *

Refraction index: Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Temperatures: <-15°C, >+50°C.

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

Not use containers, pipes, or accessories of galvanized steel. Avoid strong acids. Avoid alkalis or strong bases.

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:**

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)**E- Sensitizing effects:**

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met. However, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	LD50 oral	2410 mg/kg	Rat
	LD50 dermal	2764 mg/kg	Rabbit
	LC50 inhalation vapour		
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide CAS: 4292-10-8 EC: 224-292-6	LD50 oral	>5000 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation dust		
Sulfuric acid, mono-C12-14 (pairs) -alkyl esters, compds. with triethanolamine CAS: 90583-18-9 EC: 939-265-0	LD50 oral	1063 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation dust		
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-C12-18 acyl derivs., inner salts CAS: 1469983-50-3 EC: 939-457-4	LD50 oral	2950 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation dust		
2,2'-iminodiethanol CAS: 111-42-2 EC: 203-868-0	LD50 oral	1100 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation dust		

11.2 Information on other hazards:**Endocrine disrupting properties**

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Harmful to aquatic life with long lasting effects.

12.1 Toxicity:**Acute toxicity:**

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration		Species	Genus
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	LC50	Not relevant	Lepomis macrochirus	Fish
	EC50	4950 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Not relevant	Microcystis aeruginosa	Algae
Sulfuric acid, mono-C12-14 (pairs) -alkyl esters, compds. with triethanolamine CAS: 90583-18-9 EC: 939-265-0	LC50	Not relevant		
	EC50	Not relevant		
	EC50	11 mg/L (72 h)	Scenedesmus subspicatus	Algae
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide CAS: 4292-10-8 EC: 224-292-6	LC50	1,9 mg/L (96 h)	Cyprinus carpio	Fish
	EC50	1,9 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Not relevant		
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-C12-18 acyl derivs., inner salts CAS: 1469983-50-3 EC: 939-457-4	LC50	2,12 mg/L (96 h)	Pimephales promelas	Fish
	EC50	4 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	2,26 mg/L (72 h)	Skeletonema costatum	Algae
N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-β-alanine CAS: 64265-45-8 EC: 264-761-2	LC50	>1 - 10 mg/L (96 h)		Fish
	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae
2,2´-iminodiethanol CAS: 111-42-2 EC: 203-868-0	LC50	800 mg/L (24 h)	Carassius auratus	Fish
	EC50	180 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	75 mg/L (72 h)	Scenedesmus subspicatus	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide CAS: 4292-10-8 EC: 224-292-6	NOEC	0,135 mg/L	Oncorhynchus mykiss	Fish
	NOEC	0,032 mg/L	Daphnia magna	Crustacean
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-C12-18 acyl derivs., inner salts CAS: 1469983-50-3 EC: 939-457-4	NOEC	0,072 mg/L	Pimephales promelas	Fish
	NOEC	2,9 mg/L	Daphnia magna	Crustacean
2,2'-iminodiethanol CAS: 111-42-2 EC: 203-868-0	NOEC	1 mg/L	N/A	Fish
	NOEC	0,78 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
2-(2-butoxyethoxy)ethanol	BOD5	0,25 g O2/g	Concentration	100 mg/L
CAS: 112-34-5	COD	2,08 g O2/g	Period	28 days
EC: 203-961-6	BOD5/COD	0,12	% Biodegradable	92 %
Sulfuric acid, mono-C12-14 (pairs) -alkyl esters, compds. with triethanolamine	BOD5	Not relevant	Concentration	14 mg/L
CAS: 90583-18-9	COD	Not relevant	Period	28 days
EC: 939-265-0	BOD5/COD	Not relevant	% Biodegradable	95 %
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide	BOD5	Not relevant	Concentration	100 mg/L
CAS: 4292-10-8	COD	Not relevant	Period	28 days
EC: 224-292-6	BOD5/COD	Not relevant	% Biodegradable	95 %
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-C12-18 acyl derivs., inner salts	BOD5	Not relevant	Concentration	8.29 mg/L
CAS: 1469983-50-3	COD	Not relevant	Period	28 days
EC: 939-457-4	BOD5/COD	Not relevant	% Biodegradable	57 %
2,2´-iminodiethanol	BOD5	0,03 g O2/g	Concentration	100 mg/L
CAS: 111-42-2	COD	1,52 g O2/g	Period	21 days
EC: 203-868-0	BOD5/COD	0,02	% Biodegradable	54 %

ONE SEVEN CLASS B (FFF) 0.5% does not contain persistent organic

substances. 12.3 Bioaccumulative potential:

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SECTION 12: ECOLOGICAL INFORMATION (continued)**Substance-specific information:**

Identification	Bioaccumulation potential	
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	BCF	0.46
	Pow Log	0.56
	Potential	Low
Sulfuric acid, mono-C12-14 (pairs) -alkyl esters, compds. with triethanolamine CAS: 90583-18-9 EC: 939-265-0	BCF	
	Pow Log	-0.87
	Potential	
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-C12-18 acyl derivs., inner salts CAS: 1469983-50-3 EC: 939-457-4	BCF	
	Pow Log	2.1
	Potential	
2,2'-iminodiethanol CAS: 111-42-2 EC: 203-868-0	BCF	1
	Pow Log	-1.43
	Potential	Low

Chronic toxicity effects on biopersistence, bioaccumulation, bioconcentration, biomagnification are not expected in the long term.

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	Koc	48	Henry	7,2E-9 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Not relevant
	Surface tension	3,395E-2 N/m (25 °C)	Moist soil	Not relevant
Sulfuric acid, mono-C12-14 (pairs) -alkyl esters, compds. with triethanolamine CAS: 90583-18-9 EC: 939-265-0	Koc	316	Henry	OE+0 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Not relevant
	Surface tension	Not relevant	Moist soil	Not relevant
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide CAS: 4292-10-8 EC: 224-292-6	Koc	3063	Henry	Not relevant
	Conclusion	Low	Dry soil	Not relevant
	Surface tension	Not relevant	Moist soil	Not relevant
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-C12-18 acyl derivs., inner salts CAS: 1469983-50-3 EC: 939-457-4	Koc	129.42	Henry	Not relevant
	Conclusion	High	Dry soil	Not relevant
	Surface tension	Not relevant	Moist soil	Not relevant
2,2'-iminodiethanol CAS: 111-42-2 EC: 203-868-0	Koc	Not relevant	Henry	Not relevant
	Conclusion	Not relevant	Dry soil	Not relevant
	Surface tension	3,4E-2 N/m (148,45 °C)	Moist soil	Not relevant

Water-soluble

Avoid spillage to the ground and water. If the surfactant mixture penetrates the soil, it will move through the soil and can contaminate ground and surface waters.

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

The organic components of this product are non-persistent biodegradable materials and do not contain any fluorinated organic compounds or other persistent organic pollutants.

ONE SEVEN CLASS B (FFF) 0.5% is a fluorine-free fire fighting foam concentrate.

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods:**

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SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Code	Description	Waste class (Regulation (EU) No 1357/2014)
16 03 05*	organic wastes containing hazardous substances	Hazardous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

If a spill occurs: Contain the spill. Cover with absorbent material. Collect spilled material and place in a closed, identified container.

In the event of a large spill, it can create large amounts of foam: inform the competent authorities in accordance with local legislation.

It must not be disposed of with household garbage. Do not allow product to enter the sewer system unless authorized by an agreement with the operator of the wastewater treatment plant.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION**Transport of dangerous goods by land:**

With regard to ADR 2025 and RID 2025:

- | | |
|--|---------------|
| 14.1 UN number or ID number: | Not relevant |
| 14.2 UN proper shipping name: | Not relevant |
| 14.3 Transport hazard class(es): | Not relevant |
| Labels: | Not relevant |
| 14.4 Packing group: | Not relevant |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user | |
| Special regulations: | Not relevant |
| Tunnel restriction code: | Not relevant |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | Not relevant |
| 14.7 Maritime transport in bulk according to IMO instruments: | Not relevant |

Transport of dangerous goods by sea:

With regard to IMDG 42-24:

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SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number or ID number:	Not relevant
14.2 UN proper shipping name:	Not relevant
14.3 Transport hazard class(es):	Not relevant
Labels:	Not relevant
14.4 Packing group:	Not relevant
14.5 Marine pollutant:	No
14.6 Special precautions for user	
Special regulations:	Not relevant
EmS Codes:	
Physico-Chemical properties:	see section 9
Limited quantities:	Not relevant
Segregation group:	Not relevant
14.7 Maritime transport in bulk according to IMO instruments:	Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2026:

14.1 UN number or ID number:	Not relevant
14.2 UN proper shipping name:	Not relevant
14.3 Transport hazard class(es):	Not relevant
Labels:	Not relevant
14.4 Packing group:	Not relevant
14.5 Environmental hazards:	No
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Maritime transport in bulk according to IMO instruments:	Not relevant

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

- Article 95, REGULATION (EU) No 528/2012: Not relevant
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not relevant
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

Seveso III:

Not relevant

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

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SECTION 15: REGULATORY INFORMATION (continued)**Other information:**

Regulation (EC) No. 1000/2017 (PFOA).

Regulation (EU) 2019/1021 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of June 20, 2019 on persistent organic pollutants. (Perfluorooctane sulfonic acid and its derivatives (PFOS) C8F17SO2X (X = OH, metal salt (O-M +), halide, amide and other derivatives, including polymers).

Commission Delegated Regulation (EU) 2020/784 of April 8, 2020 amending Annex I of Regulation (EU) 2019/1021 of the European Parliament and of the Council with regard to inclusion in the list of the perfluorooctanoic acid (PFOA), its salts and PFOA-related substances.

VS Focum fire fighting foams comply with:

- European Regulation 2019/1021 / CE of the European Parliament and of the Council of June 20, 2019 on persistent organic pollutants modified by Delegated Regulation (EU) 2020/784 of the Commission of April 8, 2020.
- European Regulation 1000/2017 / EC of June 13, 2017 that modifies Annex XVII of Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on registration, evaluation, Chemical Authorization and Restriction (REACH) for perfluorooctanoic acid (PFOA), its salts and PFOA-related substances.
- European Commission Regulation 2021/1297/EC amending Annex XVII of Regulation (EC) 1907/2006 of the European Parliament and of the Council as regards C9-C14 PFCAs, their salts and related substances.
- European Regulation 2022/2400 of the European Parliament and of the Council amending Annexes IV and V of Regulation (EC) 1907/2006 of the European Parliament and of the Council on Persistent Organic Pollutants (PFOA and PFHxS).
- European Regulation 2023/1608 amending Annex I to Regulation (EU) 2019/1021 of the European Parliament and of the Council as regards the listing of perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds.
- Commission Regulation (EU) 2024/2462 of 19 September 2024 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council as regards undecafluorohexanoic acid (PFHxA), its salts and PFHxA-related substances.
- Commission Regulation (EU) 2025/1988 of 2 October 2025 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council as regards per- and polyfluoroalkyl substances in firefighting foams.

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION**Legislation related to safety data sheets:**

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Not relevant

Texts of the legislative phrases mentioned in section 2:

H318: Causes serious eye damage.

H412: Harmful to aquatic life with long lasting effects.

H317: May cause an allergic skin reaction.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H302 - Harmful if swallowed.

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Eye Dam. 1: H318 - Causes serious eye damage.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Repr. 2: H361 - Suspected of damaging fertility or the unborn child.

Skin Irrit. 2: H315 - Causes skin irritation.

Skin Sens. 1B: H317 - May cause an allergic skin reaction.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

Classification procedure:

Eye Dam. 1: Calculation method

Aquatic Chronic 3: Calculation method

Skin Sens. 1B: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

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Safety data sheet

This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

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SECTION 16: OTHER INFORMATION (continued)

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

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