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For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose it.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains.

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage (sawdust, kieselgur (diatomite), sand, universalbinder).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal precautions: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

Incompatible substances or mixtures

Observe compatible storage of chemicals.

7.3 Specific end use(s)

See section 16 for a general overview.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
US	dipropylene glycol methyl ether	34590-94-8	PEL	100	600			29 CFR OSHA
US	isopropyl alcohol	67-63-0	PEL	400	980			29 CFR OSHA

notation

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified.

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average.

Relevant DNELs/DMELs/PNECs and other threshold levels

No data available.

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	transparent
Odor	characteristic

Other physical and chemical parameters

pH (value)	4.3
Melting point/freezing point	not determined
Initial boiling point and boiling range	184 °C at 100.3 kPa
Flash point	>96.1 °C
Evaporation rate	not determined
Flammability (solid, gas)	not relevant (fluid)
Explosive limits	
• lower explosion limit (LEL)	1.1 vol%
• upper explosion limit (UEL)	14 vol%
Vapor pressure	20 Pa at 25 °C
Density	not determined
Relative density	not determined
Solubility(ies)	not determined
Auto-ignition temperature	207 °C
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

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Physical stresses which might result in a hazardous situation and have to be avoided
strong shocks

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

not relevant

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	ATE
sodium sulphate	7757-82-6	inhalation: dust/mist	>2.4

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.

Carcinogenicity

- National Toxicology Program (United States): none of the ingredients are listed
- IARC Monographs: none of the ingredients are listed

Name of substance	Name acc. to inventory	CAS No	wt%	Classification	Number
isopropyl alcohol	Isopropyl alcohol	67-63-0	0.07	3	Volume 15, Sup 7, 71

Legend

3 Not classifiable as to carcinogenicity in humans.

Specific target organ toxicity (STOT)

Shall not be classified as a specific target organ toxicant.

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Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Dipropylene Glycol Monomethyl Ether	34590-94-8	LC50	>1,000 mg/l	fish	96 hours
Dipropylene Glycol Monomethyl Ether	34590-94-8	ErC50	>969 mg/l	algae	72 hours
Dipropylene Glycol Monomethyl Ether	34590-94-8	EC50	>969 mg/l	algae	72 hours
propylene glycol	57-55-6	LC50	40,613 mg/l	fish	96 hours
propylene glycol	57-55-6	ErC50	34,100 mg/l	algae	48 hours
isopropyl alcohol	67-63-0	LC50	10,000 mg/l	fish	96 hours
sodium sulphate	7757-82-6	LC50	7,960 mg/l	fish	96 hours

Aquatic toxicity (chronic)

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Dipropylene Glycol Monomethyl Ether	34590-94-8	LC50	>1,000 mg/l	aquatic invertebrates	24 h
isopropyl alcohol	67-63-0	LC50	>10,000 mg/l	aquatic invertebrates	24 h
sodium sulphate	7757-82-6	LC50	>8,080 mg/l	fish	24 h
sodium sulphate	7757-82-6	EC50	1,698 mg/l	aquatic invertebrates	7 d

Biodegradation

The relevant substances of the mixture are readily biodegradable.

12.2 Persistence and degradability

Data are not available.

Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time
Dipropylene Glycol Monomethyl Ether	34590-94-8	oxygen depletion	75 %	10 d
Dipropylene Glycol Monomethyl Ether	34590-94-8	DOC removal	96 %	28 d
Dipropylene Glycol Monomethyl Ether	34590-94-8	carbon dioxide generation	76 %	28 d

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Name of substance	CAS No	Process	Degradation rate	Time
propylene glycol	57-55-6	oxygen depletion	106.8 %	28 d
propylene glycol	57-55-6	carbon dioxide generation	81.7 %	28 d
propylene glycol	57-55-6	DOC removal	98.3 %	28 d
isopropyl alcohol	67-63-0	oxygen depletion	53 %	5 d

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Dipropylene Glycol Monomethyl Ether	34590-94-8		0.0043	
propylene glycol	57-55-6		-1.07	
sodium sulphate	7757-82-6	0.5	-4.38	

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

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SECTION 14: Transport information

- 14.1 UN number (not subject to transport regulations)
- 14.2 UN proper shipping name not relevant
- 14.3 Transport hazard class(es)
Class -
- 14.4 Packing group not relevant
- 14.5 Environmental hazards none (non-environmentally hazardous acc. to the dangerous goods regulations)
- 14.6 Special precautions for user
There is no additional information.
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System (American Coatings Association)

Category	Rating	Description
Chronic	/	None.
Health	0	No significant risk to health.
Flammability	1	Material that must be preheated before ignition can occur.
Physical hazard	0	Material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive.
Personal protective equipment	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States)

Category	Degree of hazard	Description
Flammability	1	Material that must be preheated before ignition can occur.
Health	0	Material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material.
Instability	0	Material that is normally stable, even under fire conditions.
Special hazard		

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SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR OSHA	29 CFR §1910.1001 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
ATE	Acute Toxicity Estimate
BCF	BioConcentration Factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
COD	chemical oxygen demand
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HMIS	Hazardous Materials Identification System
IARC Monographs	IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
log KOW	n-octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NFPA® 704	National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States)
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	parts per million
STEL	short-term exposure limit
TWA	time-weighted average
vPvB	very Persistent and very Bioaccumulative

Key literature references and sources for data

- OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200
- 49 CFR § 172.101 Hazardous Materials Table (DOT)

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards/Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.