according to Regulation (EC) No. 1907/2006 (REACH)



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Version number: GHS 1.0

1.1

Date of compilation: 2021-09-10

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier Trade name Registration number (REACH)

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not relevant (mixture)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Uses advised against paint, coating and lacquer

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (house-hold).

1.3 Details of the supplier of the safety data sheet

Scanningspray Vertriebs GmbH Johann-Strauß-Str. 13 45657 Recklinghausen Germany

e-mail: info@aesub.com Website: www.aesub.com

e-mail (competent person)

liese@aesub.com (Max Liese)

1.4 Emergency telephone number

Emergency information service

This number is only available during the following office hours: Mon-Fri $08{:}00$ - $17{:}00$

Poison centre					
Country	Name	Postal code/ city	Telephone	Telefax	Opening hours
	24 Hour Emergency Contact Phone Number (WISAG) - United Kingdom		44-870-8200418		Mon - Fri 00:00 - 00:00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Category	Hazard class and cat- egory	Hazard state- ment
2.6	flammable liquid	2	Flam. Liq. 2	H225
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.8D	specific target organ toxicity - single exposure (narcotic effects, drowsiness)	3	STOT SE 3	H336
3.10	aspiration hazard	1	Asp. Tox. 1	H304

For full text of abbreviations: see SECTION 16.

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The most important adverse physicochemical, human health and environmental effects The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word danger
- Pictograms

GHS02, GHS07, GHS08



- Hazard statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

- Precautionary statements

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P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.

- Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.

- Hazardous ingredients for labelling

cyclopentane, propan-2-ol, pin-2(10)-ene

2.3 Other hazards

Repeated exposure may cause skin dryness or cracking.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Hazardous ingredients acc. to GHS								
Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms				
bioethanol	CAS No 64-17-5 EC No 200-578-6 Index No 603-002-00-5	50-<75	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319					

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REACH Reg. No 01-2119457610-43-xxxx 10 - <25	Hazardous ingredients acc. to GHS						
01-2119457610-43-xxxx 01-2119457610-43-xxxx propan-2-ol CAS No 10-<25 Flam. Liq. 2 / H225 EC No 200-661-7 STOT SE 3 / H336 Image: Company of the second sec	Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms		
67-63-0 Eye Irrit. 2 / H319 EC No 200-661-7 REACH Reg. No 01-2119457558-25-xxxx cyclopentane CAS No 287-92-3 10 - <25							
287-92-3 STOT SE 3 / H336 EC No Asp. Tox. 1 / H304 206-016-6 EUH066 Index No 601-030-00-2	propan-2-ol	67-63-0 EC No 200-661-7 REACH Reg. No	10-<25	Eye Irrit. 2 / H319			
01-2119463053-47	cyclopentane	287-92-3 EC No 206-016-6 Index No 601-030-00-2 REACH Reg. No	10-<25	STOT SE 3 / H336 Asp. Tox. 1 / H304 Aquatic Chronic 3 / H412			

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
bioethanol	Eye Irrit. 2; H319: C ≥ 50 %	-	-	

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. Take off contaminated clothing. Thaw frosted parts with lukewarm water. Do not rub affected area.

Following eye contact

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

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

Narcotic effects.

according to Regulation (EC) No. 1907/2006 (REACH)



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4.3 Indication of any immediate medical attention and special treatment needed none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

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

Follow emergency procedures such as the need to evacuate the danger area or to consult an expert. Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Personal protective equipment shall be used when the risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

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

Appropriate containment techniques

Use of adsorbent materials.

Equipment required for containment/clean-up

Non-sparking tools and equipment, Collecting basins for spills, Personal protective equipment

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

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6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: 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. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not 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

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Corrosive conditions

Protect from moisture.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

- Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- Specific designs for storage rooms or vessels
- Maximum storage period

Best before date

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

- Storage class (LGK) - TRGS 510

LGK 3 (flammable and desensitizing explosive liquids)

7.3 Specific end use(s)

Paint, coating and lacquer



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SECTION 8: Exposure controls/personal protection

8.1 **Control parameters**

Occup	Occupational exposure limit values (Workplace Exposure Limits)										
Coun- try	Name of agent	CAS No	Identifi- er	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Nota- tion	Source
GB	hydrocarbon mix- ture (RCP method)		WEL		1,800		3,600				EH40/ 2005
GB	cycloalkanes (C5- C6)	287-92-3	WEL		1,800						EH40/ 2005
GB	ethanol	64-17-5	WEL	1,000	1,920						EH40/ 2005
GB	propan-2-ol	67-63-0	WEL	400	999	500	1,250				EH40/ 2005

Notation

Ceiling-C STEL

ceiling value is a limit value above which exposure should not occur 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 (unless otherwise specified)

Relevant DNELs of components of the mixture							
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time	
bioethanol	64-17-5	DNEL	1,900 mg/m ³	human, inhalatory	worker (industry)	acute - local effects	
bioethanol	64-17-5	DNEL	343 mg/kg	human, dermal	worker (industry)	chronic - systemic ef- fects	
bioethanol	64-17-5	DNEL	950 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic ef- fects	
bioethanol	64-17-5	DNEL	87 mg/kg	human, oral	consumer (private households)	chronic - systemic ef- fects	
bioethanol	64-17-5	DNEL	206 mg/kg	human, dermal	consumer (private households)	chronic - systemic ef- fects	
bioethanol	64-17-5	DNEL	114 mg/m ³	human, inhalatory	consumer (private households)	chronic - systemic ef- fects	
cyclopentane	287-92-3	DNEL	3,000 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic ef- fects	
cyclopentane	287-92-3	DNEL	432 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects	
cyclopentane	287-92-3	DNEL	643 mg/m ³	human, inhalatory	consumer (private households)	chronic - systemic ef- fects	
cyclopentane	287-92-3	DNEL	214 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic ef- fects	
cyclopentane	287-92-3	DNEL	214 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic ef- fects	

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Relevant DNELs of components of the mixture							
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time	
propan-2-ol	67-63-0	DNEL	500 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic ef- fects	
propan-2-ol	67-63-0	DNEL	888 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects	
propan-2-ol	67-63-0	DNEL	89 mg/m ³	human, inhalatory	consumer (private households)	chronic - systemic ef- fects	
propan-2-ol	67-63-0	DNEL	319 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic ef- fects	
propan-2-ol	67-63-0	DNEL	26 mg/kg bw/ day	human, oral	consumer (private households)	chronic - systemic ef- fects	

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
bioethanol	64-17-5	PNEC	0.96 ^{mg} / _l	aquatic organisms	freshwater	short-term (single ir stance)
bioethanol	64-17-5	PNEC	0.79 ^{mg} / _l	aquatic organisms	marine water	short-term (single in stance)
bioethanol	64-17-5	PNEC	580 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single i stance)
bioethanol	64-17-5	PNEC	3.6 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single i stance)
bioethanol	64-17-5	PNEC	0.63 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single i stance)
bioethanol	64-17-5	PNEC	2.75 ^{mg} / _l	aquatic organisms	water	intermittent release
propan-2-ol	67-63-0	PNEC	160 ^{mg} / _{kg}	aquatic organisms	water	short-term (single in stance)
propan-2-ol	67-63-0	PNEC	140.9 ^{mg} / _l	aquatic organisms	water	intermittent release
propan-2-ol	67-63-0	PNEC	140.9 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in stance)
propan-2-ol	67-63-0	PNEC	140.9 ^{mg} / _l	aquatic organisms	marine water	short-term (single i stance)
propan-2-ol	67-63-0	PNEC	2,251 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single i stance)
propan-2-ol	67-63-0	PNEC	552 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single i stance)
propan-2-ol	67-63-0	PNEC	552 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single i stance)
propan-2-ol	67-63-0	PNEC	28 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single i stance)

according to Regulation (EC) No. 1907/2006 (REACH)



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8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Personal protective equipment shall be used when the risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Butyl rubber; Layer thickness: 0.7 mm; Break through time: 240 min. 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. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. Do not wear gloves near rotary machines or tools. In the case of wanting to use the gloves again, clean them before taking off and air them well.

- Other protection measures

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

Respiratory protection

During spraying wear suitable respiratory equipment. [In case of inadequate ventilation] wear respiratory protection. Type: ABEK-P2 (combined filters against gases, vapours and particles, colour code: Brown/Grey/Yellow/Green/White).

Environmental exposure controls

The disposal by sewage disposal systems is generally not allowed.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

	•
Physical state	liquid
Colour	not determined
Odour	characteristic
Melting point/freezing point	-97.8 °C
Boiling point or initial boiling point and boiling range	49.3 °C at 760 mmHg
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	1.1 vol% - 13.5 vol%
Flash point	-25 °C at 1,013 hPa calculated value, referring to a component of the mix-ture
Auto-ignition temperature	$361~^\circ C$ (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	not determined
Solubility(ies)	not determined

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	Partition coefficient Partition coefficient n-octanol/water (log value)	this information is not available
	Vapour pressure	5.254 PSI at 70 °F
	Density and/or relative density Density Relative vapour density	not determined information on this property is not available
9.2	Particle characteristics Decomposition temperature Other information Information with regard to physical hazard classes Other safety characteristics	not relevant (liquid) not determined there is no additional information there is no additional information there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

10.5 Incompatible materials

Oxidisers

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.

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SECTION 11: Toxicological information

11.1	Information on hazard classes as defined in Regulation (EC) No 1272/2008 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 according to GHS (1272/2008/EC, CLP)
	Acute toxicity Shall not be classified as acutely toxic.
	Skin corrosion/irritation Shall not be classified as corrosive/irritant to skin.
	Serious eye damage/eye irritation Causes serious eye irritation.
	Respiratory or skin sensitisation Shall not be classified as a respiratory or skin sensitiser.
	Germ cell mutagenicity Shall not be classified as germ cell mutagenic.
	Carcinogenicity Shall not be classified as carcinogenic.
	Reproductive toxicity Shall not be classified as a reproductive toxicant.
	Specific target organ toxicity - single exposure May cause drowsiness or dizziness.
	Specific target organ toxicity - repeated exposure Shall not be classified as a specific target organ toxicant (repeated exposure).
	Aspiration hazard May be fatal if swallowed and enters airways.
	Other information Repeated exposure may cause skin dryness or cracking.
11.2	Information on other hazards There is no additional information.
SEC	TION 12: Ecological information
12.1	Toxicity Shall not be classified as hazardous to the aquatic environment.

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Aquatic toxicity (acute) of components of the mixture					
Name of substance					Exposure time
bioethanol	64-17-5	LC50	15,400 ^{mg} / _l	fish	96 h
bioethanol	64-17-5	EC50	12,700 ^{mg} / _l	fish	96 h
bioethanol	64-17-5	ErC50	22,000 ^{mg} / _l	algae	96 h
cyclopentane	287-92-3	LL50	29.3 ^{mg} / _l	fish	96 h
cyclopentane	287-92-3	EL50	51.15 ^{mg} / _l	aquatic invertebrates	48 h
propan-2-ol	67-63-0	LC50	10,000 ^{mg} / _l	fish	96 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint Value Species		Exposure time	
bioethanol	64-17-5	EC50	22.6 ^g / _l	algae	10 d
bioethanol	64-17-5	LC50	1,806 ^{mg} / _l	aquatic invertebrates	10 d
bioethanol	64-17-5	ErC50	675 ^{mg} / _l	algae	4 d
propan-2-ol	67-63-0	LC50	>10,000 ^{mg} / _l	aquatic invertebrates	24 h

12.2 Persistence and degradability

Data are not available.

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	
bioethanol	64-17-5		-0.77	0.6211	
cyclopentane	287-92-3	70.8	3 (pH value: 7, 25 °C)		

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

Information on this property is not available.

12.7 Other adverse effects

Data are not available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

The disposal by sewage disposal systems is generally not allowed.

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Waste treatment-relevant information

Solvent reclamation/regeneration.

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/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. 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.

SECI	ION 14	: Trans	port in	itormatio

14.1 UN nu	mber or ID	number
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14.1		
	ADR/RID/ADN	UN 1263
	IMDG-Code	UN 1263
	ICAO-TI	UN 1263
14.2	UN proper shipping name	
	ADR/RID/ADN	PAINT
	IMDG-Code	PAINT
	ICAO-TI	Paint
14.3	Transport hazard class(es)	
	ADR/RID/ADN	3
	IMDG-Code	3
	ICAO-TI	3
14.4	Packing group	
	ADR/RID/ADN	Ш
	IMDG-Code	II
	ICAO-TI	II
14.5	Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

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Transport of dangerous goods by road information	, rail and inland waterway (ADR/RID/ADN) - Additional
Classification code	F1
Danger label(s)	3
Special provisions (SP)	163, 367, 640D, 650
Excepted quantities (EQ)	E2
Limited quantities (LQ)	5 L
Transport category (TC)	2
Tunnel restriction code (TRC)	D/E
Hazard identification No	33
Emergency Action Code	3YE
	ds Code (IMDG) - Additional information
Marine pollutant	
Danger label(s)	3
Special provisions (SP)	163, 367
Excepted quantities (EQ)	E2
Limited quantities (LQ)	5 L
EmS	F-E, <u>S-E</u>
Stowage category	В
International Civil Aviation Organization	n (ICAO-IATA/DGR) - Additional information
Danger label(s)	3
Special provisions (SP)	A3, A72, A192
	E2
Excepted quantities (EQ)	

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list none of the ingredients are listed

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the In- ternational Carriage of Dangerous Goods by Road)
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/ RID/ADN)
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
Asp. Tox.	Aspiration hazard
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)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule

according to Regulation (EC) No. 1907/2006 (REACH)



Version number: GHS 1.0

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Abbr.	Descriptions of used abbreviations
ErC50	= EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
ΙΑΤΑ	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethal- ity during a specified time interval
LGK	Lagerklasse (storage class according to TRGS 510, Germany)
LL50	Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality
log KOW	n-Octanol/water
NLP	No-Longer Polymer
РВТ	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
RCP	Reciprocal calculation procedure
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concern- ing the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
SVHC	Substance of Very High Concern
TRGS	Technische Regeln für GefahrStoffe (technical rules for hazardous substances, Germany)
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

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Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

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)

Code	Text		
H225	Highly flammable liquid and vapour.		
H304	May be fatal if swallowed and enters airways.		
H319	Causes serious eye irritation.		
H336	May cause drowsiness or dizziness.		
H412	Harmful to aquatic life with long lasting effects.		

Disclaimer

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