Nitroglycerine 2-5 % in Ethanol

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

1.1. Product identifier
Trade name/designation:

Nitroglycerine 2-5 % in Ethanol

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture:
Active agent

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Valsynthese S. A.
Société Suisse des Explosifs Group
Fabrikstrasse 48
3900 Brig
Switzerland
Telephone: +41 27 922 71 11
Telefax: +41 27 922 72 00
E-mail: info@valsynthese.ch
Website: www.valsynthese.ch

E-mail (competent person): msds@sse-group.com

1.4. Emergency telephone number

United States of America: Poison control center - national hotline number 1-800-222-1222
Great Britain: National phone number 111
Belgium: Centre antipoisons +32 070 245 245 / Bulgaria: +359 2 9154 233 / Croatia: +3851 2348 342 / Cyprus: +357 1401 / Czech Republic: +420 224 919 293, +420 224 915 402 / Denmark: +45 82 12 12 12 / Estonia: +372 16662, +372 7943 794 / Finland: +358 09 471 77 / France: numéro ORFILA (INRS) : +33 (0)1 45 42 59 59 / Greece: +30 21077 93777 / Hungary: +36 80 201 199 (24 hours) / Ireland: +353 (1) 809 2166 / Italy: +39 06 4997800 / Lithuania: +370 (85) 2362052 / Luxembourg: +352 8002 5500 / The Nederlands: +31 (0) 30 274 8888 / Norway: +47 22 59 13 00 / Portugal: +351 800 250 250 / Romania: +402 213 183 606 / Slovakia: +421 2 5477 4166 / Spain: National Emergency Telephone Number: +34 91 562 04 20 / Sweden: +46 112 (emergency 24 hours), +46 08-331231 (monfri 9.00-17.00).
European Union: Call 112 if no specific phone number available., +41 27 922 71 11 (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids *(Flam. Liq. 2)*	H225: Highly flammable liquid and vapour.	Calculation method.
Acute toxicity (dermal) *(Acute Tox. 3)*	H311: Toxic in contact with skin.	Calculation method.
Acute toxicity (inhalative) *(Acute Tox. 3)*	H331: Toxic if inhaled.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	Calculation method.
Acute toxicity (oral) *(Acute Tox. 4)*	H302: Harmful if swallowed.	Calculation method.

Nitroglycerine 2-5 % in Ethanol

*
2.2. Label elements

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

Hazard pictograms:

GHS02
Flame

GHS06
Skull and crossbones

Signal word: Danger

Hazard statements for physical hazards	
H225	Highly flammable liquid and vapour.

Hazard statements for health hazards	
H302	Harmful if swallowed.
H311 + H331	Toxic in contact with skin or if inhaled.

Hazard statements for environmental hazards	
H412	Harmful to aquatic life with long lasting effects.

Supplemental hazard information: none

Precautionary statements Prevention	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing vapours and spray.
P280	Wear protective gloves/protective clothing and eye/face protection.

Precautionary statements Response	
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/etc./ if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 64-17-5 EC No.: 200-578-6 Index No.: 603-002-00-5 REACH No.: 01-2119457610-43-XXXX	**ethanol** Flam. Liq. 2 (H225) Danger	95 – 98 weight-%
CAS No.: 55-63-0 EC No.: 200-240-8 Index No.: 603-034-00-X REACH No.: 01-2119488893-18-XXXX	**glycerol trinitrate** Acute Tox. 1 (H310, H300), Acute Tox. 2 (H330), Aquatic Chronic 2 (H411), STOT RE 2 (H373**), Unst. Expl. (H200) Danger	2 – 5 weight-%

Full text of H- and EUH-phrases: see section 16.

Nitroglycerine 2-5 % in Ethanol

SECTION 4: First aid measures

* **4.1. Description of first aid measures**

General information:
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!

Following inhalation:
Provide fresh air. Get immediate medical advice/attention.
If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

In case of skin contact:
After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. Get immediate medical advice/attention. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

After eye contact:
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

Following ingestion:
Rinse mouth. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Get immediate medical advice/attention.

Self-protection of the first aider:
Use personal protection equipment. No direct artificial respiration to be given by first aider. Avoid contact with skin, eyes and clothes.

4.2. Most important symptoms and effects, both acute and delayed
Respiratory paralysis, low blood pressure, accompanied by severe headache, dizziness, narcosis, intoxication, euphoria, nausea, vomiting.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

* **5.1. Extinguishing media**

Suitable extinguishing media:
Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO2).

Unsuitable extinguishing media:
Full water jet

5.2. Special hazards arising from the substance or mixture
Combustible. In contact with water, pure nitroglycerin may separate and there is a risk of subsequent detonation due to heat, shock or friction.

Hazardous combustion products:
In case of fire: Carbon dioxide (CO2). Carbon monoxide. Nitrogen oxides (NOx). Gases/vapours, toxic.

5.3. Advice for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:
Remove persons to safety.

Nitroglycerine 2-5 % in Ethanol

Protective equipment:
Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2. For emergency responders

Personal protection equipment:
Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3. Methods and material for containment and cleaning up

For containment:
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
For cleaning up:
Water (with cleaning agent)

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

*

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:
Use closed equipment if possible. Wear personal protection equipment (refer to section 8). Use explosion-proof equipment.
Fire prevent measures:
Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking.

Advices on general occupational hygiene

When using do not eat, drink or smoke. Avoid contact with eyes and skin. Used working clothes should not be worn outside the work area.

*

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:
Keep container tightly closed in a cool, well-ventilated place. Avoid high temperatures or direct sunlight.
Requirements for storage rooms and vessels:
Make sure spills can be contained, e.g. in sump pallets or kerbed areas. Storage in the chemical cabinet. Quantities above 100 kg: Storage room with adequate explosion protection.
Hints on storage assembly:
Do not store together with acide or basique substances. Keep away from oxidising agents.
Storage class (TRGS 510, Germany): 3 – Flammable liquids

7.3. Specific end use(s)

No data available

Nitroglycerine 2-5 % in Ethanol

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
ES from 1 Jan 2013	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	② 1,000 ppm (1,910 mg/m³) ⑤ s
VLA (FR)	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	① 1,000 ppm (1,900 mg/m³) ② 5,000 ppm (9,500 mg/m³)
WEL (GB)	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	① 1,000 ppm (1,920 mg/m³)
IDLH (US) from 1 Jan 1994	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	① 3,300 ppm [10% LEL]
OSHA (US)	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	① 1,000 ppm (1,900 mg/m³)
NIOSH (US)	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	① 1,000 ppm (1,900 mg/m³)
ACGIH (US) from 1 Jan 2016	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	② 1,000 ppm
ES from 1 Jan 2016	**glycerol trinitrate** CAS No.: 55-63-0 EC No.: 200-240-8	① 0.01 ppm (0.094 mg/m³) ② 0.02 ppm (0.19 mg/m³) ⑤ (puede ser absorbido a través dérmica) VLI, vía dérmica
IOELV (EU) from 21 Feb 2017	**glycerol trinitrate** CAS No.: 55-63-0 EC No.: 200-240-8	① 0.01 ppm (0.095 mg/m³) ② 0.02 ppm (0.19 mg/m³) ⑤ (may be absorbed through the skin)
WEL (GB) from 21 Aug 2018	**glycerol trinitrate** CAS No.: 55-63-0 EC No.: 200-240-8	① 0.01 ppm (0.095 mg/m³) ② 0.02 ppm (0.19 mg/m³) ⑤ (may be absorbed through the skin)
VRI (FR) from 1 Jul 2020	**glycerol trinitrate** CAS No.: 55-63-0 EC No.: 200-240-8	① 0.01 ppm (0.095 mg/m³) ② 0.02 ppm (0.19 mg/m³) ⑤ (peut être absorbé par la peau)
IDLH (US) from 1 Jan 1994	**glycerol trinitrate** CAS No.: 55-63-0 EC No.: 200-240-8	① 75 mg/m³
OSHA (US)	**glycerol trinitrate** CAS No.: 55-63-0 EC No.: 200-240-8	③ 0.2 ppm (2 mg/m³) ⑤ (may be absorbed through the skin)
NIOSH (US)	**glycerol trinitrate** CAS No.: 55-63-0 EC No.: 200-240-8	② 0.1 mg/m³ ⑤ (may be absorbed through the skin)
ACGIH (US)	**glycerol trinitrate** CAS No.: 55-63-0 EC No.: 200-240-8	① 0.05 ppm (0.46 mg/m³) ⑤ (may be absorbed through the skin)

Nitroglycerine 2-5 % in Ethanol

8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	① Parameter ② Test material ③ Time of sampling: ④ Remark
BMGV (GB)	**glycerol trinitrate** CAS No.: 55-63-0 EC No.: 200-240-8	15 µmol/mol creatinine	① total nitroglycols ② urine ④ At the end of the period of exposure

8.1.3. DNEL-/PNEC-values

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. In case of insufficient ventilation, wear respiratory protection.

8.2.2. Personal protection equipment

Eye/face protection:

Eye glasses with side protection EN 166. It's recommended to install an eye bath or to provide at least a sufficient number of eye wash bottles with clean water.

Skin protection:

Use protective gloves in accordance to EN 374. The following material is suitable: NBR Permeation time (maximum wear duration): 1 hour(s). Wear a tightly sealed protective cloth against chemical agents in accordance to EN 368.

Respiratory protection:

Filtering device (full mask or mouthpiece) with filter: ABEK-P3 (EN 136)

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

*

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: light yellow

Odour: Ethanol

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	*not applicable*		
Melting point	-114.5 °C		② Ethanol (glycerol trinitrate: 13.5°C)
Freezing point	*not determined*		
Initial boiling point and boiling range	79 °C		② Ethanol (glycerol trinitrate: Decomposition temperature 212°C)
Decomposition temperature	*not determined*		
Flash point	12 °C		
Evaporation rate	*not determined*		
Auto-ignition temperature	363 – 425 °C		② Ethanol. (glycerol trinitrate: No data available.)

Nitroglycerine 2-5 % in Ethanol

Parameter	Value	at °C	① Method ② Remark
Upper/lower flammability or explosive limits	3.5 – 15 Vol-%		② Ethanol
Vapour pressure	59 hPa	20 °C	② Ethanol (glycerol trinitrate: 0.00033 hPa, 20°C)
Vapour density	*not determined*		
Density	0.8 g/cm³	20 °C	
Relative density	*not determined*		
Bulk density	*not applicable*		
Water solubility	completely miscible	20 °C	② Water solubility glycerol trinitrate: 1.25 g/l
Partition coefficient: n-octanol/water	0.31	20 °C	② Ethanol. (glycerol trinitrate: No data available.)
Dynamic viscosity	1.2 mPa* s	20 °C	② Ethanol. (glycerol trinitrate: No data available.)
Kinematic viscosity	*not determined*		

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability
The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
exposure to light. Temperature >25°C.

10.5. Incompatible materials
Oxidising agent, strong. Strong acid. Strong alkali.

10.6. Hazardous decomposition products
Gases/vapours, toxic

Further information
In contact with water, pure nitroglycerin may separate and there is a risk of subsequent detonation due to heat, shock or friction.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

glycerol trinitrate CAS No.: 55-63-0 EC No.: 200-240-8
LD_{50} oral: 105 mg/kg (Rat)
LD_{50} dermal: 29.2 mg/kg (Rat)

Acute oral toxicity:
Harmful if swallowed.

Acute dermal toxicity:
Toxic in contact with skin.

Acute inhalation toxicity:
Toxic if inhaled.

Skin corrosion/irritation:
Based on available data, the classification criteria are not met.

Nitroglycerine 2-5 % in Ethanol

Serious eye damage/irritation:
Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation:
Based on available data, the classification criteria are not met.

Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity:
Based on available data, the classification criteria are not met.

STOT-single exposure:
Based on available data, the classification criteria are not met.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Based on available data, the classification criteria are not met.

Additional information:
No data available

*
11.2. Information on other hazards

Endocrine disrupting properties:
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1. Toxicity

glycerol trinitrate CAS No.: 55-63-0 EC No.: 200-240-8
LC_{50}: 3.58 mg/L 4 d (Pimephales promelas (fathead minnow))
EC_{50}: 1.15 mg/L 4 d (Selenastrum capricornutum)
EC_{50}: 17.8 mg/L 2 d (Ceriodaphnia spec)
NOEC: 3.23 mg/L 4 d (Ceriodaphnia spec)
NOEC: 0.37 mg/L 4 d (Selenastrum capricornutum)

Aquatic toxicity:
Harmful to aquatic life with long lasting effects.

*
12.2. Persistence and degradability

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
Biodegradation: Yes, rapidly
glycerol trinitrate CAS No.: 55-63-0 EC No.: 200-240-8
Biodegradation: —

Biodegradation:
Ethanol: Readily biodegradable (according to OECD criteria). (glycerol trinitrate: No data available)

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water:
0.31 at °C: 20; Remark: Ethanol. (glycerol trinitrate: No data available.)

Accumulation / Evaluation:
No indication of bioaccumulation potential.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

Nitroglycerine 2-5 % in Ethanol

glycerol trinitrate CAS No.: 55-63-0 EC No.: 200-240-8
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

*
12.6. Endocrine disrupting properties
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Do not allow to enter into surface water or drains. The product may not be eliminated as municipal solid waste nor allowed to end up in the drainage system. These packs can be delivered packaging-specific to the existing collection points for hazardous waste.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

07 05 04 *	other organic solvents, washing liquids and mother liquors

**: Evidence for disposal must be provided.*

Remark:
Wastecode according to regulation EU 2014/955:

Waste code packaging

Remark:
15 01 10 [S] Verpackungen, die Rückstände von Stoffen oder Sonderabfällen mit besonders gefährlichen Eigenschaften enthalten oder durch Stoffe oder Sonderabfälle mit besonders gefährlichen Eigenschaften verunreinigt sind.

Waste treatment options

Appropriate disposal / Package:
Residues of the product and packaging have to be collected as hazardous waste.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
UN 3064	UN 3064	UN 3064	UN 3064
14.2. UN proper shipping name			
NITROGLYCERIN, SOLUTION IN ALCOHOL	NITROGLYCERIN, SOLUTION IN ALCOHOL	NITROGLYCERIN, SOLUTION IN ALCOHOL	NITROGLYCERIN, SOLUTION IN ALCOHOL Transport prohibited.
14.3. Transport hazard class(es)			
 3	 3	 3	 3
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
No	No	No	No
14.6. Special precautions for user			
Special Provisions: 359. **Limited quantity (LQ):** 0	**Special Provisions:** 359. **Limited quantity (LQ):** 0	**Special Provisions:** 359. **Limited quantity (LQ):** 0	No data available

Nitroglycerine 2-5 % in Ethanol

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
Excepted Quantities (EQ): E0 **Classification code:** D **Tunnel restriction code:** (B)	**Excepted Quantities (EQ):** E0 **Classification code:** D	**Excepted Quantities (EQ):** E0	

14.7. Maritime transport in bulk according to IMO instruments

No data available.

Additional information:

Nitroglycerine >1 to 5 % in alcohol has to be assigned to class 1 dangerous goods Nr. 0144 if not all prescripitions of packaging instruction P300 are met. The following combined packaging is admitted for transport under UN 3064 according to EP 300: Inside metal cans each containing max. 1 l and wooden boxes outside containing max. 5 liters. The metal cans have to be completely embedded in upholstery and the wooden boxes must be impermeable to water and nitroglycerine.

SECTION 15: Regulatory information

*

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive], Hazard categories:

- H2 Acute toxic
- P5a Flammable Liquids, Category 1 or 2
- P5b Flammable liquids
- P5c Flammable liquids of Categories 2 or 3, not covered by P5a and P5b

Volatile organic compounds (VOC) content in percent by weight: 96

15.1.2. National regulations

No data available

15.2. Chemical Safety Assessment

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

SECTION 16: Other information

16.1. Indication of changes

2.2.	Label elements
4.1.	Description of first aid measures
5.1.	Extinguishing media
7.1.	Precautions for safe handling
7.2.	Conditions for safe storage, including any incompatibilities
9.1.	Information on basic physical and chemical properties
11.2.	Information on other hazards
12.2.	Persistence and degradability
12.6.	Endocrine disrupting properties
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture

16.2. Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European agreement concerning the international carriage of dangerous goods by road
CAS Chemical Abstract Service
CLP Classification, labelling and Packaging

EC_{50} Effective Concentration 50%
EN European norm
IATA International Air Transport Association
IMDG-Code International Maritime Dangerous Goods Code
LC_{50} Lethal Concentration 50%
LD_{50} Lethal Dose 50%
OECD Organization for Economic Cooperation and Development
PBT persistent, bioaccumulative, toxic
PNEC Predicted No Effect Concentration
REACH Registration, Evaluation and Authorization of Chemicals
RID Regulations concerning the international carriage of dangerous goods by rail
SVHC Substance of Very High Concern
UN United Nations
VOC Volatile organic compounds
vPvB very persistent, very bioaccumulative

16.3. Key literature references and sources for data

Inventory of substances of the European Chemical Agency (ECHA). Security safety data sheet of the ingredients.

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids *(Flam. Liq. 2)*	H225: Highly flammable liquid and vapour.	Calculation method.
Acute toxicity (dermal) *(Acute Tox. 3)*	H311: Toxic in contact with skin.	Calculation method.
Acute toxicity (inhalative) *(Acute Tox. 3)*	H331: Toxic if inhaled.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	Calculation method.
Acute toxicity (oral) *(Acute Tox. 4)*	H302: Harmful if swallowed.	Calculation method.

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H200	Unstable explosives.
H225	Highly flammable liquid and vapour.
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

16.6. Training advice

Persons charged with the handling and cleaning of the product must be trained prior to start their work and in regular intervals. They must be informed about the risks using the product and the mesures to take for efficient prevention. This concerns particularly working security, first aid, health and environment protection.

16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new madeup material.

* Data changed compared with the previous version.