

Safety data sheet

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



Karl-Fischer-ROTI®Hydroquant waterstandard 1.0 , 1 mg H₂O/g

article number: **9971**
Version: **2.0 en**
Replaces version of: 2016-08-30
Version: (1)

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

1.1 Product identifier

Identification of the substance **Karl-Fischer-ROTI®Hydroquant waterstandard 1.0 , 1 mg H₂O/g**
Article number 9971
Registration number (REACH) not relevant (mixture)

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

Relevant identified uses: Laboratory chemical
Laboratory and analytical use
Uses advised against: Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone:+49 (0) 721 - 56 06 0
Telefax: +49 (0) 721 - 56 06 149
e-mail: sicherheit@carlroth.de
Website: www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

e-mail (competent person): **sicherheit@carlroth.de**

1.4 Emergency telephone number

| Name | Street | Postal code/city | Telephone | Website |
|---|-----------|----------------------|--------------|---------|
| National Poisons Information Service City Hospital | Dudley Rd | B187QH Birmingham | 844 892 0111 | |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

| Section | Hazard class | Cat-egory | Hazard class and category | Hazard statement |
|---------|------------------|-----------|---------------------------|------------------|
| 2.6 | Flammable liquid | 3 | Flam. Liq. 3 | H226 |

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

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2.2 Label elements

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

Signal word

Warning

Pictograms

GHS02



Hazard statements

H226

Flammable liquid and vapour

Precautionary statements

Precautionary statements - prevention

P210

Keep away from heat, sparks, open flames, hot surfaces. No smoking

Precautionary statements - storage

P403+P235

Store in a well-ventilated place. Keep cool

Labelling of packages where the contents do not exceed 125 ml

Signal word: **Warning**

Symbol(s)



2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

| Name of substance | Identifier | Wt% | Classification acc. to GHS | Pictograms | Notes |
|-------------------|--|------|----------------------------|------------|-------|
| Anisole | CAS No 100-66-3 EC No 202-876-1 | ≥ 50 | Flam. Liq. 3 / H226 | | |

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| Name of substance | Identifier | Wt% | Classification acc. to GHS | Pictograms | Notes |
|---------------------|--|-------|----------------------------|------------|--------|
| Propylene carbonate | CAS No 108-32-7 EC No 203-572-1 Index No 607-194-00-1 REACH Reg. No 01-2119537232- 48-xxxx | 1 – 5 | Eye Irrit. 2 / H319 | | GHS-HC |

Notes

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

For full text of abbreviations: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off contaminated clothing.

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects, Headache, Drowsiness, Cough, Dyspnoea, Agitation, Nausea, Vomiting, Spasms

4.3 Indication of any immediate medical attention and special treatment needed

none

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SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Combustible. 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. Vapours may form explosive mixtures with air.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO₂), May produce toxic fumes of carbon monoxide if burning.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Danger of explosion.

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

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

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

Provision of sufficient ventilation.

Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice:

Ground/bond container and receiving equipment.

Ventilation requirements

Use local and general ventilation.

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Data are not available.

| Relevant DNELs of components of the mixture | | | | | | |
|---|----------|-----------|----------------------|------------------------------------|-------------------|----------------------------|
| Name of substance | CAS No | End-point | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
| Anisole | 100-66-3 | DNEL | 20 mg/m ³ | human, inhalatory | worker (industry) | chronic - systemic effects |

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| Relevant DNELs of components of the mixture | | | | | | |
|---|----------|-----------|-------------------------|------------------------------------|-------------------|----------------------------|
| Name of substance | CAS No | End-point | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
| Propylene carbonate | 108-32-7 | DNEL | 70,53 mg/m ³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| Propylene carbonate | 108-32-7 | DNEL | 20 mg/m ³ | human, inhalatory | worker (industry) | chronic - local effects |
| Propylene carbonate | 108-32-7 | DNEL | 20 mg/kg bw/day | human, dermal | worker (industry) | chronic - systemic effects |

| Relevant PNECs of components of the mixture | | | | | | |
|---|----------|-----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance | CAS No | End-point | Threshold level | Organism | Environmental compartment | Exposure time |
| Anisole | 100-66-3 | PNEC | 27 µg/l | aquatic organisms | freshwater | short-term (single instance) |
| Anisole | 100-66-3 | PNEC | 2,7 µg/l | aquatic organisms | marine water | short-term (single instance) |
| Anisole | 100-66-3 | PNEC | 30 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| Anisole | 100-66-3 | PNEC | 0,745 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| Anisole | 100-66-3 | PNEC | 0,074 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| Anisole | 100-66-3 | PNEC | 0,133 mg/kg | terrestrial organisms | soil | short-term (single instance) |
| Propylene carbonate | 108-32-7 | PNEC | 9 mg/l | aquatic organisms | water | intermittent release |
| Propylene carbonate | 108-32-7 | PNEC | 0,9 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| Propylene carbonate | 108-32-7 | PNEC | 0,09 mg/l | aquatic organisms | marine water | short-term (single instance) |
| Propylene carbonate | 108-32-7 | PNEC | 7.400 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| Propylene carbonate | 108-32-7 | PNEC | 0,81 mg/kg | terrestrial organisms | soil | short-term (single instance) |

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.

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Skin protection



• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

• type of material

FKM (fluoro rubber)

• material thickness

0,4 mm

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

• Splash protection - Protective gloves

• type of material: NBR (Nitrile rubber)

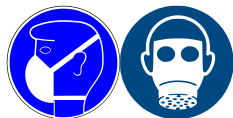
• material thickness: 0,4 mm

• breakthrough times of the glove material: >30 minutes (permeation: level 2)

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|----------------|
| Physical state | liquid |
| Colour | colourless |
| Odour | characteristic |
| Melting point/freezing point | -37 °C |
| Boiling point or initial boiling point and boiling range | 153 °C |

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| | |
|---------------------------------|--|
| Flammability | flammable liquid in accordance with GHS criteria |
| Lower and upper explosion limit | 1,2 vol% - 6,3 vol% |
| Flash point | 43 °C |
| Auto-ignition temperature | 475 °C |
| Decomposition temperature | not relevant |
| pH (value) | not determined |
| Kinematic viscosity | not determined |

Solubility(ies)

Water solubility 34 g/l at 20 °C

Partition coefficient

Partition coefficient n-octanol/water (log value): this information is not available

Vapour pressure 4,7 hPa at 25 °C

Density 1,025 g/cm³ at 20 °C

Relative vapour density information on this property is not available

Particle characteristics not relevant (liquid)

Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard classes: There is no additional information.

Other safety characteristics:

Temperature class (EU, acc. to ATEX) T1
Maximum permissible surface temperature on the equipment: 450°C

SECTION 10: Stability and reactivity

10.1 Reactivity

The mixture contains reactive substance(s). Risk of ignition. May form explosive peroxides.

If heated

Risk of ignition. Vapours may form explosive mixtures with air.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

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10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser, Strong alkali, Strong acid

10.4 Conditions to avoid

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

10.5 Incompatible materials

Rubber articles, different plastics

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5. Peroxides.

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.

Acute toxicity of components of the mixture

| Name of substance | CAS No | Exposure route | Endpoint | Value | Species |
|---------------------|----------|----------------|----------|--------------|---------|
| Anisole | 100-66-3 | oral | LD50 | 3.700 mg/kg | rat |
| Propylene carbonate | 108-32-7 | oral | LD50 | >5.000 mg/kg | rat |

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 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

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

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Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

vomiting, nausea

• If in eyes

slightly irritant but not relevant for classification

• If inhaled

headache, drowsiness, cough, Dyspnoea

• If on skin

has degreasing effect on the skin, Frequently or prolonged contact with skin may cause dermal irritation

• Other information

Other adverse effects: Liver and kidney damage

11.2 Endocrine disrupting properties

None of the ingredients are listed.

11.3 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

| Aquatic toxicity (acute) of components of the mixture | | | | | |
|---|----------|----------|-------------|-----------------------|---------------|
| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
| Anisole | 100-66-3 | EC50 | 27 mg/l | aquatic invertebrates | 48 h |
| Anisole | 100-66-3 | ErC50 | 47 mg/l | algae | 72 h |
| Propylene carbonate | 108-32-7 | LC50 | >1.000 mg/l | fish | 96 h |
| Propylene carbonate | 108-32-7 | EC50 | >1.000 mg/l | daphnia magna | 24 h |
| Propylene carbonate | 108-32-7 | ErC50 | >900 mg/l | algae | 72 h |

Biodegradation

The relevant substances of the mixture are readily biodegradable.

12.2 Process of degradability

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Degradability of components of the mixture

| Name of substance | CAS No | Process | Degradation rate | Time | Method | Source |
|---------------------|----------|---------------------------|------------------|------|--------|--------|
| Propylene carbonate | 108-32-7 | biotic/abiotic | 97 % | 4 d | | |
| Propylene carbonate | 108-32-7 | carbon dioxide generation | 70,2 % | 9 d | | ECHA |

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 |
|---------------------|----------|-----|---------------|----------|
| Anisole | 100-66-3 | | 2,62 (30 °C) | |
| Propylene carbonate | 108-32-7 | | -0,48 (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

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

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

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

13.3 Remarks

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

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SECTION 14: Transport information

14.1 UN number or ID number

| | |
|-------------|---------|
| ADR/RID/ADN | UN 2222 |
| IMDG-Code | UN 2222 |
| ICAO-TI | UN 2222 |

14.2 UN proper shipping name

| | |
|-------------|---------|
| ADR/RID/ADN | ANISOLE |
| IMDG-Code | ANISOLE |
| ICAO-TI | Anisole |

14.3 Transport hazard class(es)

| | |
|-------------|---|
| ADR/RID/ADN | 3 |
| IMDG-Code | 3 |
| ICAO-TI | 3 |

14.4 Packing group

| | |
|-------------|-----|
| ADR/RID/ADN | III |
| IMDG-Code | III |
| ICAO-TI | III |

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.

14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

| | |
|---------------------------------------|--------------------------------|
| Proper shipping name | ANISOLE |
| Particulars in the transport document | UN2222, ANISOLE, 3, III, (D/E) |
| Classification code | F1 |
| Danger label(s) | 3 |



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Hazard identification No 30

Emergency Action Code 3Y

International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name ANISOLE

Particulars in the shipper's declaration UN2222, ANISOLE, 3, III, 43°C c.c.

Marine pollutant -

Danger label(s) 3



Special provisions (SP) -

Excepted quantities (EQ) E1

Limited quantities (LQ) 5 L

EmS F-E, S-D

Stowage category A

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name Anisole

Particulars in the shipper's declaration UN2222, Anisole, 3, III

Danger label(s) 3



Excepted quantities (EQ) E1

Limited quantities (LQ) 10 L

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)

Restrictions according to REACH, Annex XVII

| Dangerous substances with restrictions (REACH, Annex XVII) | | | | |
|--|--|--------|-------------|----|
| Name of substance | Name acc. to inventory | CAS No | Restriction | No |
| Karl-Fischer-ROTI®Hydroquant waterstandard 1.0 | this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC | | R3 | 3 |
| Anisole | flammable / pyrophoric | | R40 | 40 |

Legend

- R3
1. 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,
 2. Articles not complying with paragraph 1 shall not be placed on the market.
 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:

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Legend

- can be used as fuel in decorative oil lamps for supply to the general public, and
— present an aspiration hazard and are labelled with H304.
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
- (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
- (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter fluid may lead to life threatening lung damage';
- (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;
- R40
1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:
- metallic glitter intended mainly for decoration,
 - artificial snow and frost,
 - 'whoopie' cushions,
 - silly string aerosols,
 - imitation excrement,
 - horns for parties,
 - decorative flakes and foams,
 - artificial cobwebs,
 - stink bombs.
2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:
- 'For professional users only'.
3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (2).
4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

None of the ingredients are listed. (Or Concentration of the substance in a mixture: <0.1 % Mass concentration)

Seveso Directive

| 2012/18/EU (Seveso III) | | | | |
|-------------------------|---------------------------------------|---|--------|-------|
| No | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | | Notes |
| P5c | flammable liquids (cat. 2, 3) | 5.000 | 50.000 | 51) |

Notation

51) Flammable liquids, categories 2 or 3 not covered by P5a and P5b

Deco-Paint Directive

| | |
|-------------|--------------------|
| VOC content | 100 % 1.025 g/l |
|-------------|--------------------|

Industrial Emissions Directive (IED)

| | |
|-------------|-----------|
| VOC content | 95,1 % |
| VOC content | 974,8 g/l |

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

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Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Water Framework Directive (WFD)

none of the ingredients are listed

Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation on drug precursors

none of the ingredients are listed

Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

National inventories

| Country | Inventory | Status |
|---------|------------|--------------------------------|
| AU | AICS | all ingredients are listed |
| CA | DSL | all ingredients are listed |
| CN | IECSC | all ingredients are listed |
| EU | ECSI | all ingredients are listed |
| EU | REACH Reg. | all ingredients are listed |
| JP | CSCL-ENCS | all ingredients are listed |
| KR | KECI | all ingredients are listed |
| MX | INSQ | all ingredients are listed |
| NZ | NZIoC | all ingredients are listed |
| PH | PICCS | all ingredients are listed |
| TR | CICR | not all ingredients are listed |
| TW | TCSI | all ingredients are listed |
| US | TSCA | all ingredients are listed |

Legend

| | |
|------------|---|
| AICS | Australian Inventory of Chemical Substances |
| CICR | Chemical Inventory and Control Regulation |
| CSCL-ENCS | List of Existing and New Chemical Substances (CSCL-ENCS) |
| DSL | Domestic Substances List (DSL) |
| ECSI | EC Substance Inventory (EINECS, ELINCS, NLP) |
| IECSC | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ | National Inventory of Chemical Substances |
| KECI | Korea Existing Chemicals Inventory |
| NZIoC | New Zealand Inventory of Chemicals |
| PICCS | Philippine Inventory of Chemicals and Chemical Substances (PICCS) |
| REACH Reg. | REACH registered substances |
| TCSI | Taiwan Chemical Substance Inventory |
| TSCA | Toxic Substance Control Act |

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Alignment to regulation: Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

Restructuring: section 9, section 14

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
|---------|--|---|-----------------|
| 2.1 | | Classification according to Regulation (EC) No 1272/2008 (CLP): change in the listing (table) | yes |
| 2.1 | Remarks: For full text of Hazard- and EU Hazard-statements: see SECTION 16. | | yes |
| 2.1 | | The most important adverse physicochemical, human health and environmental effects: The product is combustible and can be ignited by potential ignition sources. | yes |
| 2.2 | | Pictograms: change in the listing (table) | yes |
| 2.2 | | Precautionary statements - prevention: change in the listing (table) | yes |
| 2.3 | Other hazards: There is no additional information. | Other hazards | yes |
| 2.3 | | Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB. | yes |

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 européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road) |
| ADR/RID/ADN | European Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN) |
| BCF | Bioconcentration factor |
| BOD | Biochemical Oxygen Demand |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| 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 |

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| Abbr. | Descriptions of used abbreviations |
|------------|---|
| 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) |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| EmS | Emergency Schedule |
| 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 |
| IATA | 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 % lethality during a specified time interval |
| LD50 | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval |
| log KOW | n-Octanol/water |
| NLP | No-Longer Polymer |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| SVHC | Substance of Very High Concern |
| VOC | Volatile Organic Compounds |
| vPvB | Very Persistent and very Bioaccumulative |

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).

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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 |
|------|--------------------------------|
| H226 | Flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |

Disclaimer

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