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



Standard for Viscosity N100 ROTI®Calipure 320 cSt (20°C)

article number: 3344 date of compilation: 2019-09-19 Version: **3.0 en** Revision: 2022-06-23

Replaces version of: 2020-01-07

Version: (2)

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

Product identifier 1.1

Identification of the substance Standard for Viscosity N100 ROTI®Calipure 320

cSt (20°C)

Article number 3344

Registration number (REACH) not relevant (mixture)

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

Relevant identified uses: Laboratory and analytical use

Laboratory chemical

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 :Department Health, Safety and Environment

sheet:

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

1.4 **Emergency telephone number**

| Name | Street | Postal code/city | Telephone | Website |
|---|---------------|------------------|-------------|-----------------------------|
| National Poisons Information Centre Beaumont Hospital | Beaumont Road | Dublin 9 | 01 809 2166 | https:// www.poisons.ie/ |

SECTION 2: Hazards identification

Classification of the substance or mixture 2.1

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

| Section | Hazard class | Cat- egory | Hazard class and category | Hazard statement |
|---------|---------------------------|---------------|---------------------------|---------------------|
| 3.2 | Skin corrosion/irritation | 2 | Skin Irrit. 2 | H315 |

For full text of abbreviations: see SECTION 16

2.2 **Label elements**

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

Signal word Warning

Pictograms

GHS07



Hazard statements

H315 Causes skin irritation

Precautionary statements

Precautionary statements - prevention

P280 Wear protective gloves/eye protection

Precautionary statements - response

P302+P352 IF ON SKIN: Wash with plenty of soap and water P332+P313 If skin irritation occurs: Get medical advice/attention

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 sub- stance | Identifier | Wt% | Classification acc. to GHS | Pictograms | Notes |
|--|---|---------|--|------------|-------|
| Mineral oil | CAS No 8042-47-5 EC No 232-455-8 | ≥ 50 | | | |
| Butene, homopoly- mer (products de- rived from either/or But-1-ene/But-2-ene) | CAS No 9003-29-6 EC No 500-004-7 | 25 - 50 | Skin Irrit. 2 / H315 Asp. Tox. 1 / H304 | <u>(!)</u> | |

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| Name of sub- stance | Identifier | Specific Conc. Limits | M-Factors | ATE | Exposure route |
|------------------------|---------------------|-----------------------|-----------|-----|---------------------------|
| Mineral oil | CAS No 8042-47-5 | - | - | - | inhalation: dust/ mist |
| | EC No 232-455-8 | | | | |

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 case of skin irritation, consult a physician.

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

Irritation

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

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

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Combustible.

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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.

6.2 Environmental precautions

Keep away from drains, surface and ground water.

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.

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

No special measures are necessary.

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice:

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s)

No information available.

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SECTION 8: Exposure controls/personal protection

8.1 **Control parameters**

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

| Cou ntr y | Name of agent | CAS No | Identi- fier | TW A [pp m] | TWA [mg/ m³] | STE L [pp m] | STEL [mg/ m³] | Ceil ing- C [pp m] | Ceil- ing-C [mg/ m³] | Nota- tion | Source |
|-----------------|---|----------|-----------------|----------------------|--------------------|-----------------------|---------------------|--------------------------------|-------------------------------|---------------|----------------------------|
| IE | Mineral oils that have been used be- fore in internal com- bustion engines to lubricate and cool the moving parts within the engine | 8042-47- | OELV | | | | | | | Т | S.I. No. 619 of 2001 |

Notation

Ceiling-C

Ceiling value is a limit value above which exposure should not occur Absorbed through the skin

STEL

TWA

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)
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 sub- stance | CAS No | End- point | Threshol d level | Protection goal, route of exposure | Used in | Exposure time |
|------------------------|-----------|---------------|-----------------------|--|-------------------|-------------------------------|
| Mineral oil | 8042-47-5 | DNEL | 160 mg/m ³ | human, inhalat- ory | worker (industry) | chronic - systemic effects |
| Mineral oil | 8042-47-5 | DNEL | 220 mg/kg bw/day | human, dermal | worker (industry) | chronic - systemic effects |

8.2 **Exposure controls**

Individual protection measures (personal protective equipment)

Eye/face protection





Use safety goggle with side protection.

Skin protection





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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

NBR (Nitrile rubber)

material thickness

>0,11 mm

breakthrough times of the glove material

>480 minutes (permeation: level 6)

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 - like: - Gasoline

Melting point/freezing point not determined

Boiling point or initial boiling point and boiling

range

202 °C

Flammability this material is combustible, but will not ignite

readily

Lower and upper explosion limit 0,3 vol% (LEL) - 7,5 vol% (UEL)

Flash point not determined

Auto-ignition temperature 215 °C (auto-ignition temperature (liquids and

gases))

Decomposition temperature not relevant

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pH (value) not determined

Kinematic viscosity 288 – 352 cSt at 20 °C Dynamic viscosity 243 – 297 cP at 20 °C

Solubility(ies)

Water solubility not determined

Partition coefficient

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

Vapour pressure not determined

Density and/or relative density

Density $0.8 - 0.85 \, ^{9}/_{cm^3}$ 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 acc. to GHS (physical hazards): not relevant

Other safety characteristics:

Temperature class (EU, acc. to ATEX) T3

Maximum permissible surface temperature on

the equipment: 200°C

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser

10.4 Conditions to avoid

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

10.5 Incompatible materials

There is no additional information.

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10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

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 estimate (ATE) of components of the mixture

| Name of substance | CAS No | Exposure route | ATE |
|-------------------|-----------|-----------------------|-----|
| Mineral oil | 8042-47-5 | inhalation: dust/mist | |

Acute toxicity of components of the mixture

| Name of substance | CAS No | Exposure route | Endpoint | Value | Species |
|---|-----------|--------------------------|----------|---------------------------------------|---------|
| Mineral oil | 8042-47-5 | oral | LD50 | >5.000 ^{mg} / _{kg} | rat |
| Mineral oil | 8042-47-5 | inhalation: dust/mist | LC50 | >5 ^{mg} / _l /4h | rat |
| Mineral oil | 8042-47-5 | dermal | LD50 | >2.000 ^{mg} / _{kg} | rabbit |
| Butene, homopolymer (products derived from either/or But-1-ene/But-2-ene) | 9003-29-6 | oral | LD50 | >10.000 ^{mg} / _{kg} | rat |
| Butene, homopolymer (products derived from either/or But-1-ene/But-2-ene) | 9003-29-6 | dermal | LD50 | >2.000 ^{mg} / _{kg} | rat |

Skin corrosion/irritation

Causes skin irritation.

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.

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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).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

If swallowed

Data are not available.

• If in eyes

Data are not available.

If inhaled

Data are not available.

• If on skin

has degreasing effect on the skin, causes skin irritation

Other information

none

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 (a | Aquatic toxicity (acute) of components of the mixture | | | | | | | | | | | |
|--|---|----------|--------------------------------------|------------------------------------|---------------|--|--|--|--|--|--|--|
| Name of sub- stance | CAS No | Endpoint | Value | Species | Exposure time | | | | | | | |
| Mineral oil | 8042-47-5 | LC50 | >1.000 ^{mg} / _l | orfe (Leuciscus idus) | 96 h | | | | | | | |
| Mineral oil | 8042-47-5 | LC50 | >100 ^{mg} / _l | daphnia magna | 48 h | | | | | | | |
| Mineral oil | 8042-47-5 | LC50 | >100 ^{mg} / _l | Pseudokirchneriella subcapitata | 72 h | | | | | | | |
| Mineral oil | 8042-47-5 | LL50 | >10.000 ^{mg} / _l | fish | 96 h | | | | | | | |
| Butene, homopoly- mer (products de- rived from either/or But-1-ene/But-2-ene) | 9003-29-6 | EC50 | >19,2 ^{mg} / _l | algae | 72 h | | | | | | | |

Biodegradation

Data are not available.

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12.2 Process of degradability

| Degradabilit | Degradability of components of the mixture | | | | | | | | | | |
|---|--|------------------------------|-----------------------|------|--------|--------|--|--|--|--|--|
| Name of substance | CAS No | Process | Degrada- tion rate | Time | Method | Source | | | | | |
| Butene, homo- polymer (products de- rived from either/or But-1- ene/But-2-ene) | 9003-29-6 | carbon dioxide generation | 93,9 % | 28 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 | | | | | | |
| Butene, homopolymer (products derived from either/or But-1-ene/ But-2-ene) | 9003-29-6 | | 7,6 – 7,8 (pH value: 7, 20 °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.

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

UN number or ID number not subject to transport regulations

14.2 UN proper shipping name not assigned

Transport hazard class(es) 14.3 none

14.4 Packing group not assigned

14.5 Environmental hazards non-environmentally hazardous acc. to the dan-

gerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

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

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

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

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture 15.1 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 |
|------------------------|--|--------|-------------|----|
| Standard for Viscosity | this product meets the criteria for classification in accordance with Reg- ulation No 1272/2008/EC | | R3 | 3 |

Legend

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,

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

- 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
- 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

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Legend

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.';

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

None of the ingredients are listed.

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 |
| | not assigned | | |

Deco-Paint Directive

| VOC content 100 % 850 ^g / _I |
|---|
|---|

Industrial Emissions Directive (IED)

| VOC content | 100 % |
|-------------|---------------------------------|
| VOC content | 850 ^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

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

Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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National inventories

| Country | Inventory | Status |
|---------|------------|--------------------------------|
| AU | AIIC | 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 | not 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 | all ingredients are listed |
| TW | TCSI | all ingredients are listed |
| US | TSCA | all ingredients are listed |

Legend

AIIC
CICR
CSCL-ENCS
DSL
ECSI
IECSC

Australian Inventory of Industrial Chemicals
Chemical Inventory and Control Regulation
List of Existing and New Chemical Substances (CSCL-ENCS)
Domestic Substances List (DSL)
EC Substance Inventory (EINECS, ELINCS, NLP)
Inventory of Existing Chemical Substances Produced or Imported in China
National Inventory of Chemical Substances
Korea Existing Chemicals Inventory

NECCI New Zealand Inventory of Chemicals
PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg. REACH registered substances

Taiwan Chemical Substance Inventory Toxic Substance Control Act

15.2 Chemical Safety Assessment

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- relev- ant |
|---------|---|---|--------------------------|
| 2.1 | | Classification according to Regulation (EC) No 1272/2008 (CLP): 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 |

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Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations | |
|-----------|--|--|
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de naviga- tion intérieures (European Agreement concerning the International Carriage of Dangerous Goods by In land Waterways) | |
| ADR | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road) | |
| 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 iden fier of substances commercially available within the EU (European Union) | |
| EINECS | European Inventory of Existing Commercial Chemical Substances | |
| ELINCS | European List of Notified Chemical Substances | |
| 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 | |
| IMDG | 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 specified time interval | |
| LEL | Lower explosion limit (LEL) | |
| LL50 | Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality | |
| log KOW | n-Octanol/water | |
| NLP | No-Longer Polymer | |
| PBT | Persistent, Bioaccumulative and Toxic | |
| ppm | Parts per million | |

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| Abbr. | Descriptions of used abbreviations |
|-------------------------|--|
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail) |
| S.I. No. 619 of 2001 | Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 |
| Skin Corr. | Corrosive to skin |
| Skin Irrit. | Irritant to skin |
| STEL | Short-term exposure limit |
| SVHC | Substance of Very High Concern |
| TWA | Time-weighted average |
| UEL | Upper explosion limit (UEL) |
| 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.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 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 section 2 and 3)

| Code | Text |
|------|---|
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin 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.

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