

| SAFETY DATA SHEET | | | | | | |
|---|---|-------------------------------|-----------------|--|--|--|
| according to Regulation (EC) No 1907/2006 (REACH) as amended | | | | | | |
| | | Oleic acid | | | | |
| Creati | on date 10th October 2022 | | | | | |
| Revisi | on date | Version | 2.0 | | | |
| SECT | ION 1: Identification of the substance/mix | ture and of the company/und | ertaking | | | |
| 1.1. | Product identifier | Oleic acid | | | | |
| | Substance / mixture | substance | | | | |
| | Chemical name | Oleic acid | | | | |
| | CAS number | 112-80-1 | | | | |
| | EC (EINECS) number | 204-007-1 | | | | |
| | Other substance name | | | | | |
| | Oleic acid | | | | | |
| 1.2. | Relevant identified uses of the substance | e or mixture and uses advised | against | | | |
| | Substance's intended use | | | | | |
| Chemical production, analytical chemistry, laboratory synthesis, industrial applications. | | | | | | |
| | | | | | | |
| | The product should not be used in ways othe | | | | | |
| 1.3. | Details of the supplier of the safety data | sheet | | | | |
| | Supplier | | | | | |
| | Name or trade name | Ing. Petr Švec - PE | | | | |
| | Address | Radiová 1122/1, P | raha 10, 102 00 | | | |
| | | Czech Republic | | | | |
| | Identification number (CRN) | 02096013 | | | | |
| | VAT Reg No | CZ02096013 | | | | |
| | Phone | +420 226 060 681 | | | | |
| | E-mail | info@pentachemica | | | | |
| | Web address | www.pentachemica | als.eu | | | |
| | Competent person responsible for the sa | - | | | | |
| | Name | Ing. Petr Švec - PE | NTA s.r.o. | | | |
| | E-mail | info@pentachemica | als.eu | | | |
| 1.4. | Emergency telephone number | | | | | |
| | European emergency number: 112 | | | | | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture Classification of the substance in accordance with Regulation (EC) No 1272/2008 The substance is classified as dangerous.

Skin Irrit. 2, H315

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse effects on human health and the environment Causes skin irritation.

2.2. Label elements

Hazard pictogram



Signal word Warning



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Dangerous substance

| Oleic acid | 1) |
|------------------------------|---|
| (EC: 204-007-1; CAS: 112-80- | 1) |
| Hazard statements | |
| H315 | Causes skin irritation. |
| Precautionary statements | |
| P280 | Wear protective gloves. |
| P302+P352 | IF ON SKIN: Wash with plenty of water and soap. |
| | |

2.3. Other hazards

The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

The substance specified below.

| Identification numbers | Substance name | Content in % weight | Classification according to Regulation (EC) No 1272/2008 | Note |
|--------------------------------|--|------------------------|--|------|
| CAS: 112-80-1 EC: 204-007-1 | substance main component Oleic acid | >97 | Skin Irrit. 2, H315 | |

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. Provide medical treatment, specialized if possible.

If swallowed

Rinse out the mouth with water and provide 2-5 dL of water. Provide medical treatment if the person has any health problems.

4.2. Most important symptoms and effects, both acute and delayed

If inhaled Not expected. If on skin Causes skin irritation. If in eyes Not expected. If swallowed Irritation, nausea.

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



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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Storage at 4-8°C. **7.3. Specific end use(s)**

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles.

Skin protection

When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly. Hand protection: Protective gloves resistant to the product (nitrile rubber).



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| | Respiratory protection | | | | | | | |
| | Mask with filter against organic vapors. | | | | | | | |
| | Thermal hazard Not available. | | | | | | | |
| | Not available. Environmental exposure controls | | | | | | | |
| | - | ronmont coo Soction 6.2 | | | | | | |
| | Observe usual measures for protection of the envi | Tonment, see Section 0.2. | | | | | | |
| SECTI | ON 9: Physical and chemical properties | | | | | | | |
| 9.1. | Information on basic physical and chemical p | oroperties | | | | | | |
| | Physical state | liquid | | | | | | |
| | Colour | colourless | | | | | | |
| | Odour | characteristic | | | | | | |
| | Melting point/freezing point | 10-16 °C | | | | | | |
| | Boiling point or initial boiling point and boiling range | ge 360 °C | | | | | | |
| | Flammability | data not available | | | | | | |
| | Lower and upper explosion limit | data not available | 1 | | | | | |
| | Flash point | 189 °C | | | | | | |
| | Auto-ignition temperature | data not available | 1 | | | | | |
| | Decomposition temperature | data not available | | | | | | |
| | pH | data not available | | | | | | |
| | Kinematic viscosity | data not available | | | | | | |
| | Solubility in water | data not available | 1 | | | | | |
| | Partition coefficient n-octanol/water (log value) | <3,0 | | | | | | |
| | Vapour pressure | <0,1 kPa at 20 °C | | | | | | |
| 9.2. | Density and/or relative density Other information | data not available | | | | | | |
| 9.2. | not available | | | | | | | |
| | | | | | | | | |
| SECTI | ON 10: Stability and reactivity | | | | | | | |
| 10.1. | | | | | | | | |
| | The substance is non-flammable. | | | | | | | |
| 10.2. | Chemical stability | | | | | | | |
| | The product is stable under normal conditions. | | | | | | | |
| 10.3. | Possibility of hazardous reactions | | | | | | | |
| | Unknown. | | | | | | | |
| 10.4. | Conditions to avoid | | | | | | | |
| | The product is stable and no degradation occurs | under normal use. Protect | against flames, sparks, overheating and | | | | | |
| 10 5 | against frost. Incompatible materials | | | | | | | |
| 10.5. | Protect against strong acids, bases and oxidizing a | aents | | | | | | |
| 10.6. | | igenies. | | | | | | |
| 20101 | Not developed under normal uses. Dangerous out | comes such as carbon mo | noxide and carbon dioxide are formed at | | | | | |
| | high temperature and in fire. | | | | | | | |
| | | | | | | | | |

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 No toxicological data is available for the substance.



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Acute toxicity

Based on available data the classification criteria are not met.

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| Route of exposure | Parameter | Value | Exposure time | Species | Sex | |
|---------------------------|-----------|----------|---------------|---------|-----|--|
| Oral | LD50 | 74 mg/kg | | Rat | | |
| Skin corrosion/irritation | | | | | | |

Causes skin irritation.

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.

Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

11.2. Information on other hazards

The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

12.1. Toxicity

- Acute toxicity
- 12.2. Persistence and degradability
 - not available

12.3. Bioaccumulative potential

- Not available.
- 12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100. The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Not available.

SECTION 13: Disposal considerations



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13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

SECTION 14: Transport information

- 14.1. UN number or ID number
- not subject to transport regulations
- 14.2. UN proper shipping name not relevant
- 14.3. Transport hazard class(es) not relevant
- **14.4.** Packing group not relevant
- 14.5. Environmental hazards not relevant
- **14.6.** Special precautions for user Reference in the Sections 4 to 8.
- **14.7.** Maritime transport in bulk according to IMO instruments not relevant

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

15.2. Chemical safety assessment

No chemical safety assessment has been performed for this substance.



Creation date

Revision date

Safety data sheet

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SECTION 16: Other information

| CII | ON 16: Other Information | as used in the effetu data shout |
|-----|--------------------------------|--|
| | A list of standard risk phras | es used in the safety data sheet Causes skin irritation. |
| | | |
| | | used in the safety data sheet |
| | P280 | Wear protective gloves. |
| | P302+P352 | IF ON SKIN: Wash with plenty of water and soap. |
| | - | n about human health protection |
| | as per the Section 1. The user | ess specifically approved by the manufacturer/importer - used for purposes other than is responsible for adherence to all related health protection regulations. |
| | Key to abbreviations and ac | ronyms used in the safety data sheet |
| | ADR | European agreement concerning the international carriage of dangerous goods by road |
| | BCF | Bioconcentration Factor |
| | CAS | Chemical Abstracts Service |
| | CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures |
| | EINECS | European Inventory of Existing Commercial Chemical Substances |
| | EmS | Emergency plan |
| | ES | Identification code for each substance listed in EINECS |
| | EU | European Union |
| | EuPCS | European Product Categorisation System |
| | ΙΑΤΑ | International Air Transport Association |
| | IBC | International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals |
| | ICAO | International Civil Aviation Organization |
| | IMDG | International Maritime Dangerous Goods |
| | INCI | International Nomenclature of Cosmetic Ingredients |
| | ISO | International Organization for Standardization |
| | IUPAC | International Union of Pure and Applied Chemistry |
| | LD50 | Lethal dose of a substance in which it can be expected death of 50% of the population |
| | log Kow | Octanol-water partition coefficient |
| | MARPOL | International Convention for the Prevention of Pollution from Ships |
| | OEL | Occupational Exposure Limits |
| | PBT | Persistent, Bioaccumulative and Toxic |
| | ppm | Parts per million |
| | REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| | RID | Agreement on the transport of dangerous goods by rail |
| | | |



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| UN | Four-figure identi Model Regulation | fication number of the sub s | stance or article taken fro | m the UN | | |
| UVCB | Substances of un biological materia | known or variable compos Ils | tion, complex reaction pro | oducts or | | |
| VOC | Volatile organic c | ompounds | | | | |
| vPvB | Very Persistent a | nd very Bioaccumulative | | | | |
| Skin Irrit. | Skin irritation | | | | | |
| Training guidel | ines | | | | | |
| Inform the perso ways of handling | nnel about the recommended wat the product. | ays of use, mandatory pro | tective equipment, first ai | id and prohibited | | |
| Recommended | restrictions of use | | | | | |
| not available | | | | | | |
| Information about data sources used to compile the Safety Data Sheet REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amer REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data the manufacturer of the substance / mixture, if available - information from registration dossiers. The changes (which information has been added, deleted or modified) The version 2.0 replaces the SDS version from 17 September 2019. Changes were made in sections 1,2,4,13, 15 | | | | | | |
| 16. | | | | | | |
| More information | | | | | | |
| Classification pro | cedure - calculation method. | | | | | |

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.