SAFETY DATA SHEET

1. PRODUCT

1.1 Product identifiers

Name: Mineral oil CAS-No.: 8042-47-5

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

Identified uses: Laboratory chemicals, Synthesis of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

CAS-No.: 8042-47-5 EC-No.: 232-455-8

Hazardous components

| Component | Classification | Concentration |
|-------------|----------------|---------------|
| Mineral oil | | |
| | | <= 100 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

| General advice |
|--|
| No data available |
| If inhaled |
| If breathed in, move person into fresh air. If not breathing, give artificial respiration. |
| In case of skin contact |
| Wash off with soap and plenty of water. |
| In case of eye contact |
| Flush eyes with water as a precaution. |
| If swallowed |
| Never give anything by mouth to an unconscious person. Rinse mouth with water. |

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.2 Indication of any immediate medical attention and special treatment needed

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas.

For personal protection see section 8.

6.2 Environmental precautions

No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): Combustible liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

| Component | CAS-No. | Value | Control parameters | Basis |
|-------------|-----------|-------|--------------------|---|
| Mineral oil | 8042-47-5 | TWA | 5.000000 mg/m3 | USA. Occupational Exposure Limits (OSHA) -Table Z-1 Limits for Air Contaminants |
| | | TWA | 5.000000 mg/m3 | USA. Occupational Exposure Limits (OSHA) -Table Z-1 Limits for Air Contaminants |

| Component | CAS-No. | Value | Control parameters | Basis |
|-----------|---------|---|--------------------|---|
| CT. | | TWA | 5.000000 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | ST | 10.000000 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| CHE | | TWA 5.000000 USA. ACGIH Threshold Limit Values (TLV) mg/m3 | | USA. ACGIH Threshold Limit Values (TLV) |
| | Remarks | Upper Respiratory Tract irritation Not classifiable as a human carcinogen | | |
| | | PEL | 5 mg/m3 | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| | | As sampled by method that does not collect vapor. | | |

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

| Eye/face protection | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). |
|------------------------------------|--|
| Skin protection | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 480 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 30 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. |
| Body Protection | Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |
| Respiratory protection | Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| Control of environmen tal exposure | No special environmental precautions required. |

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| Appearance | Form: liquid Colour: colourless | |
|--|--|--|
| Odour | odourless | |
| Odour Threshold | No data available | |
| pH | No data available | |
| Melting point/freezing point | Melting point/range: ca14.99 °C (5.02 °F) at ca.1,013 hPa (760 mmHg) | |
| Initial boiling point and boiling range | 218 - 800 °C (424 - 1,472 °F) at ca.1,013 hPa (760 mmHg) | |
| Flash point | > 112 °C (> 234 °F) - closed cup - ISO 2719 | |
| Evaporation rate | No data available | |
| Flammability (solid, gas) | No data available | |
| Upper/lower flammability or explosive limits | No data available | |
| Vapour pressure | <= 0.0001 hPa (<= 0.0001 mmHg) at ca.20 °C (68 °F) - OECD Test Guideline 104 | |
| Vapour density | No data available | |
| Relative density | 0.838 g/mL at 25 °C (77 °F) - | |

| Water solubility | No data available |
|--|---|
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | 325 - 355 °C (617 - 671 °F) at 1,013.25 hPa (760.00 mmHg) |
| Decomposition temperature | No data available |
| Viscosity | > 20.5 mm2/s at 40 °C (104 °F) - |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - > 5,000 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - > 5 mg/l

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg

(OECD Test Guideline 402)

No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitisation

Buehler Test - Guinea pig

Did not cause sensitisation on laboratory animals.

(OECD Test Guideline 406)

Germ cell mutagenicity

in vitro assay S. typhimurium Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available No data available

Specific target organ toxicity -single exposure

No data available

Specific target organ toxicity -repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

Repeated dose

toxicity
Rat - female - Oral - NOAEL : 1,600 mg/kg - LOAEL : 160 mg/kg - OECD Test

Guideline 408

RTECS: PY8047000

Aspiration may lead to:, lipid pneumonia, Effects due to ingestion may include:, laxative effect, Gastrointestinal disturbance, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

| Toxicity to fish | static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l - 96 h (OECD Test Guideline 203) |
|---|--|
| Toxicity to daphnia and other aquatic invertebrates | static test LC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202) |
| Toxicity to algae | No data available |
| Toxicity to bacteria | No data available |

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

| Dispose of as | s unused | product. |
|---------------|----------|----------|
|---------------|----------|----------|

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

| Component | CAS-No. | Revision Date |
|-------------|-----------|---------------|
| Mineral oil | 8042-47-5 | 1994-07-31 |

New Jersey Right To Know Components

| Component | CAS-No. | Revision Date |
|-------------|-----------|---------------|
| Mineral oil | 8042-47-5 | 1994-07-31 |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating

Health hazard: 0

Chronic Health Hazard:

Flammability: 1

Physical Hazard 0

NFPA Rating

Health hazard: 0

Fire Hazard: 1

Reactivity Hazard: 0