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Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 29 Apr 2025

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Octamethylcyclotetrasiloxane

1.1. Catalog No.:

690286

1.2. Relevant identified uses of the substance or mixture

Identified uses: Laboratory chemical
R&D

1.3. Uses advised against:

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1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Flammable liquids (Category 3), H226
Reproductive toxicity (Category 2), H361f
Long-term (chronic) aquatic hazard (Category 4), H413

2.2. Label elements

2.2.1. Pictogram

2.2.2.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram Signal word Warning
Hazard statement(s)

H226 Flammable liquid and vapour.
H361f Suspected of damaging fertility.
H413 May cause long lasting harmful effects to aquatic life.
Precautionary statement(s)
P201 Obtain special instructions before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements
none
2.3 Other hazards
This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Formula : C8H24O4Si4
Molecular weight : 296,62 g/mol
CAS-No. : 556-67-2
EC-No. : 209-136-7
Index-No. : 014-018-00-1
Component Classification Concentration
Octamethylcyclotetrasiloxane Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)
Flam. Liq. 3; Repr. 2;
Aquatic Chronic 4; H226,
H361f, H413
<= 100 %

3.1.1. Formula

C8H24O4Si4

3.1.2. Molecular Weight (g/mol)

296.62

3.1.3. CAS-No.

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556-67-2

4. FIRST AID MEASURES

4.1 Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Flush eyes with water as a precaution. If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
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
4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Dry powder Dry sand
Unsuitable extinguishing media
Do NOT use water jet.
5.2 Special hazards arising from the substance or mixture
Carbon oxides, silicon oxides
5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
5.4 Further information
Use water spray to cool unopened containers

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
For personal protection see section 8.
6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge. 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. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.
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

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
a) Appearance Form: liquid Colour: colourless
b) Odour weak
c) Odour Threshold No data available
d) pH No data available
e) Melting
point/freezing point
Melting point/range: 17 - 18 °C - lit.
f) Initial boiling point
and boiling range
176 °C at 1.013 hPa
g) Flash point 51 °C - closed cup - DIN 51755 Part 1
h) Evaporation rate No data available
i) Flammability (solid,
gas)
No data available
j) Upper/lower
flammability or
explosive limits
Upper explosion limit: 11,7 %(V)
19,5 %(V) at 1010 hPa
Lower explosion limit: 0,4 %(V)0,61 %(V) at 1010 hPa
k) Vapour pressure 1,3 hPa at 20 °C
l) Vapour density No data available
m) Relative density 0,95 g/cm3 at 25 °C
n) Water solubility 0,001 g/l at 25 °C - Hydrolysis
o) Partition coefficient:
n-octanol/water
log Pow: 6,488 at 25,1 °C - Potential bioaccumulation

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p) Auto-ignition
temperature
384 - 387 °C
at 1.013 hPa - ASTM E-659
q) Decomposition
temperature
313 °C -
r) Viscosity 1,6 mm2/s at 20 °C - (calculated), (ECHA)
s) Explosive properties No data available
t) 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
Heat, flames and sparks.
10.5 Incompatible materials
No data available 10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, silicon 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 - > 2.000 mg/kg
Remarks: (IUCLID)
LD50 Oral - Rat - male - > 4.800 mg/kg
(OECD Test Guideline 401)
LC50 Inhalation - Rat - male and female - 4 h - 36 mg/l
(OECD Test Guideline 403)
LD50 Dermal - Rat - male and female - > 2.400 mg/kg
(OECD Test Guideline 402)
Remarks: (IUCLID)
Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation - 24 h
(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: No eye irritation
(OECD Test Guideline 405)
Respiratory or skin sensitisation
Patch test: - Human
Result: negative
Remarks: (IUCLID)
Maximisation Test - Guinea pig
Result: Does not cause skin sensitisation.
(OECD Test Guideline 406)
Germ cell mutagenicity
Mutagenicity (mammal cell test): chromosome aberration.
Result: negative

Ames test
Salmonella typhimurium
Result: negative
In vitro mammalian cell gene mutation test
Mouse lymphoma test
Result: negative
OECD Test Guideline 475
Rat - male and female
Result: negative
OECD Test Guideline 478 Rat - male and female
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.
Reproductive toxicity
Suspected of damaging fertility.
Specific target organ toxicity - single exposure
Specific target organ toxicity - repeated exposure
Aspiration hazard
Additional Information
Repeated dose toxicity - Rabbit - male and female - Dermal - 21 d - No observed adverse effect level - >= 960 mg/kg
RTECS: GZ4397000
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
We have no description of any toxic symptoms.
Handle in accordance with good industrial hygiene and safety practice

12. ECOLOGICAL INFORMATION

12.1 Toxicity
12.2 Persistence and degradability
Biodegradability aerobic - Exposure time 10 d
(OECD Test Guideline 310)
Remarks: Not readily biodegradable.
12.3 Bioaccumulative potential
12.4 Mobility in soil
12.5 Results of PBT and vPvB assessment
This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).
12.6 Other adverse effects
Discharge into the environment must be avoided.
Stability in water
Remarks: Hydrolysis

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.
Contaminated packaging
Dispose of as unused product.

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14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 1993 IMDG: 1993 IATA: 1993
14.2 UN proper shipping name
ADR/RID: FLAMMABLE LIQUID, N.O.S. (Octamethylcyclotetrasiloxane)
IMDG: FLAMMABLE LIQUID, N.O.S. (Octamethylcyclotetrasiloxane)
IATA: Flammable liquid, n.o.s. (Octamethylcyclotetrasiloxane)
14.3 Transport hazard class(es)
ADR/RID: 3 IMDG: 3 IATA: 3
14.4 Packaging group
ADR/RID: III IMDG: III IATA: III
14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no
14.6 Special precautions for user
No data available

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Authorisations and/or restrictions on use
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).
: Octamethylcyclotetrasiloxane
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)
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REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)
: Octamethylcyclotetrasiloxane
15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!