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Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 02 Apr 2021

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

1.1. Product name:

Tetramethylsilane

1.1. Catalog No.:

1168

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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2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008)

Flammable liquid, Category 1, H224

2.2. Label elements

2.2.1. Pictogram

2.2.2.

2.2 Label elements Labelling (REGULATION (EC) No 1272/2008)

Signal word Danger

Hazard statements H224 Extremely flammable liquid and vapour.

Precautionary statements Prevention P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P240 Ground/bond container and receiving equipment. Storage P403 + P233 Store in a

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well-ventilated place. Keep container tightly closed.
Hazard statements H224 Extremely flammable liquid and vapour.

Precautionary statements P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

CAS - No.
75-76-3

2.3 Other hazards None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Formula (CH3)4Si C4H12Si (Hill) EC-No. 200-899-1 Molar mass 88,23 g/mol

Remarks No disclosure requirement according to Regulation (EC) No. 1907/2006.

3.2 Mixture Not applicable

3.1.1. Formula

C4H12Si

3.1.2. Molecular Weight (g/mol)

88.22

3.1.3. CAS-No.

75-76-3

4. FIRST AID MEASURES

4.1 Description of first aid measures After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water.

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed irritant effects, Cough, Unconsciousness, Headache, somnolence

4.3 Indication of any immediate medical attention and special treatment needed No information available.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media Suitable extinguishing media Carbon dioxide (CO2), Foam, Dry powder

Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture Combustible. Pay attention to flashback. Vapours are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

5.3 Advice for firefighters Special protective equipment for firefighters In the event of fire, wear self-contained breathing apparatus.

Further information Remove container from danger zone and cool with water. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Do not breathe vapours, aerosols. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the

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danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

6.2 Environmental precautions Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4 Reference to other sections Indications about waste treatment see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling Observe label precautions.

Advice on protection against fire and explosion Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures Change contaminated clothing. Wash hands after working with substance.
Storage conditions Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Recommended storage temperature see product label.

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

8.2 Exposure controls

Engineering measures Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye /face protection Safety glasses

Hand protection full contact: Glove material: Nitrile rubber Glove thickness: 0,40 mm Break through time: > 480 min splash contact: Glove material: Nitrile rubber
Glove thickness: 0,40 mm Break through time: > 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.
When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.

Othe r protective equipment Flame retardant antistatic protective clothing.

Respiratory protection required when vapours/aerosols are generated. Recommended Filter type: Filter AX (EN 371) The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls Do not let product enter drains. Risk of explosion.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Form liquid

Colour colourless

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Odour characteristic

Odour Threshold No information available.

pH Not applicable

Melting point -95 °C

Boiling point/boiling range 26 °C at 1.013 hPa

Flash point -20 °C DIN 51755 Part 1

Evaporation rate No information available.

Flammability (solid, gas) No information available.

Lower explosion limit 1,0 %(V)

Upper explosion limit 37,9 %(V)

Vapour pressure 750 hPa at 20 °C

Relative vapour density No information available.

Density 0,65 g/cm3 at 20 °C

Relative density No information available.

Water solubility 0,02 g/l at 25 °C
Partition coefficient: noctanol/water
log Pow: 3,24 (experimental) (Lit.) Bioaccumulation is not expected.

Auto-ignition temperature No information available.

Decomposition temperature No information available.

Viscosity, dynamic No information available.

Explosive properties Not classified as explosive.

Oxidizing properties none

9.2 Other data
Ignition temperature 345 °C DIN 51794

10. STABILITY AND REACTIVITY

10.1 Reactivity Vapours may form explosive mixture with air.

10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions Risk of ignition or formation of inflammable gases or vapours with:

Violent reactions possible with:

Strong oxidizing agents, Bases, Strong acids

10.4 Conditions to avoid Warming. 10.5 Incompatible materials no information available

10.6 Hazardous decomposition products in the event of fire: See section 5.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity LD50 Rat: > 2.000 mg/kg OECD Test Guideline 401

Acute inhalation toxicity LC50 Rat: > 21,3 mg/l; 4 h ; vapour OECD Test Guideline 403

Symptoms: Possible damages:, mucosal irritations, Cough

Acute dermal toxicity LD50 Rat: > 2.000 mg/kg OECD Test Guideline 402

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Skin irritation Rabbit Result: No skin irritation OECD Test Guideline 404

Eye irritation Rabbit Result: No eye irritation OECD Test Guideline 405

Sensitisation Buehler Test Guinea pig Result: negative Method: OECD Test Guideline 406

Germ cell mutagenicity
Genotoxicity in vitro In vitro mammalian cell gene mutation test Result: negative Method: OECD Test Guideline 476

Mutagenicity (mammal cell test): chromosome aberration. Result: negative Method: OECD Test Guideline 473

Ames test Salmonella typhimurium Result: negative Method: OECD Test Guideline 471

Carcinogenicity This information is not available.

Reproductive toxicity This information is not available.

Teratogenicity Application Route: Inhalation Rat Number of exposures: daily Method: OECD Test Guideline 422

Specific target organ toxicity - single exposure This information is not available.

Specific target organ toxicity - repeated exposure This information is not available.

Repeated dose toxicity

Rat male and female Inhalation vapour 28 d daily NOAEL: >= 18,3 mg/l OECD Test Guideline 422 Subacute toxicity

Aspiration hazard This information is not available.

11.2 Further information After absorption of large quantities: Headache, somnolence, Unconsciousness Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

12. ECOLOGICAL INFORMATION

12.1 Toxicity Toxicity to fish NOEC Oncorhynchus mykiss (rainbow trout): 1,3 mg/l; 96 h Analytical monitoring: yes OECD Test Guideline 203

LC50 Oncorhynchus mykiss (rainbow trout): 1,9 mg/l; 96 h Analytical monitoring: yes OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates static test NOEC Daphnia magna (Water flea): > 103 mg/l; 48 h Analytical monitoring: yes OECD Test Guideline 202
static test EC50 Daphnia magna (Water flea): > 103 mg/l; 48 h Analytical monitoring: yes OECD Test Guideline 202

Toxicity to algae static test NOEC Desmodesmus subspicatus (Scenedesmus subspicatus): >= 0,0079 mg/l; 72 h Analytical monitoring: yes OECD Test Guideline 201

static test EC50 Desmodesmus subspicatus (green algae): > 0,0079 mg/l; 72 h Analytical monitoring: yes OECD Test Guideline 201

Toxicity to bacteria EC10 Pseudomonas putida: 17.100 mg/l; 3 h DIN 38412 TEIL 8

12.2 Persistence and degradability Biodegradability

Not readily biodegradable.

1 %; 28 d; aerobic OECD Test Guideline 301D

12.3 Bioaccumulative potential Partition coefficient: n - octanol/water log Pow: 3,24 (experimental)

(Lit.) Bioaccumulation is not expected.

12.4 Mobility in soil No information 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

Henry constant 430525 Pa*m³/mol (Lit.) Distribution preferentially in air.

Discharge into the environment must be avoided.

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13. DISPOSAL CONSIDERATIONS

Waste treatment methods
For processes regarding the return of chemicals and containers contact us if you have further questions.

14. TRANSPORT INFORMATION

Land transport (ADR/RID) 14.1 UN number UN 2749 14.2 Proper shipping name TETRAMETHYLSILANE 14.3 Class 3 14.4 Packing group I 14.5 Environmentally hazardous -- 14.6 Special precautions for user yes Tunnel restriction code D/E
Inland waterway transport (ADN) Not relevant
Air transport (IATA) 14.1 UN number UN 2749 14.2 Proper shipping name TETRAMETHYLSILANE 14.3 Class 3 14.4 Packing group I 14.5 Environmentally hazardous --
14.6 Special precautions for user
yes
IATA (Passenger) Not permitted for transport
Sea transport (IMDG) 14.1 UN number UN 2749 14.2 Proper shipping name TETRAMETHYLSILANE 14.3 Class 3 14.4 Packing group I 14.5 Environmentally hazardous -- 14.6 Special precautions for user yes EmS F-E S-D
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulations
Major Accident Hazard Legislation SEVESO III FLAMMABLE LIQUIDS P5a Quantity 1: 10 t Quantity 2: 50 t

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer
not regulated
Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC
not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of >= 0.1 % (w/w).

National legislation
Storage class 3

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!