# SAFETY DATA SHEET

## 1. Identification

**Product identifier: AEROSIL® R 7200**

**Other means of identification**

**Recommended use:** Paints and varnishes.
Plastics
Elastomers

**Recommended restrictions:** Not determined.

**Manufacturer/Importer/Distributor Information**

Company Name : Evonik Operations GmbH
Rellinghauser Str. 1-11
45128 Essen
Germany

Telephone : +49 6181 59 4787

E-mail : sds-hu@evonik.com

**Emergency telephone number:**

24-Hour Health Emergency : +49 7623 919191

## 2. Hazard(s) identification

**Classification according to GHS**

**Physical Hazards**

Self-heating substances and mixtures Category 2

**Label Elements**

**Hazard Symbol:**

**Signal Word:** Warning

**Hazard Statement:** Self-heating in large quantities; may catch fire.

**Precautionary Statements**

**Prevention:** Keep cool. Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Storage:** Maintain air gap between stacks or pallets. Protect from sunlight. Store bulk masses greater than 480 kg at temperatures not exceeding 35 °C. Store separately.

**Other hazards:** No data available.

## 3. Composition/information on ingredients

**Substances**

| Chemical Identity | Common name and synonyms | CAS number | Content in percent (%)* |
|---|---|---|---|
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | | 100402-78-6 | |

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

## 4. First-aid measures

**Description of first aid measures**

**Inhalation:** In case product dust is released: Possible discomfort: cough, sneezing Move to fresh air.

**Skin Contact:** Wash off with plenty of water and soap.

**Eye contact:** Possible discomfort is due to foreign substance effect. Rinse thoroughly with plenty of water keeping eyelid open. In case of persistent discomfort: Consult an ophthalmologist.

**Ingestion:** Clean mouth with water and drink afterwards plenty of water. After absorbing large amounts of substance / In case of discomfort: Supply with medical care.

**Personal Protection for First-aid Responders:** No data available.

**Most important symptoms and effects, both acute and delayed**

**Symptoms:** None known.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** No data available.

## 5. Fire-fighting measures

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, foam, CO2, dry powder. Adapt fire-extinguishing measures to surroundings

**Unsuitable extinguishing media:** Do not use full-force water jet in order to avoid dispersal and spread of the fire.

**Special hazards arising from the substance or mixture:** May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**Special protective equipment for fire-fighters:** In the event of fire, wear self-contained breathing apparatus.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Avoid dust formation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

**Accidental release measures:** No data available.

**Methods and material for containment and cleaning up:** Sweep up or vacuum up spillage and collect in suitable container for disposal.

**Environmental Precautions:** Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

## 7. Handling and storage

**Handling**

**Technical measures:** Ensure suitable suction/aeration at the work place and with operationalmachinery.Local ventilation if necessary. see also section 7.

| | |
|---|---|
| **Local/Total ventilation:** | No data available. |
| **Safe handling advice:** | If necessary: Local ventilation.Handle in accordance with good industrial hygiene and safety practice. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. |
| **Contact avoidance measures:** | No data available. |

**Storage**

| | |
|---|---|
| **Safe storage conditions:** | Take precautionary measures against static discharges. |
| **Safe packaging materials:** | No data available. |

## 8. Exposure controls/personal protection

**Control Parameters**

**Occupational Exposure Limits**

Observe national threshold limit values.

**Biological Limit Values**

No biological exposure limits noted for the ingredient(s).

| | |
|---|---|
| **Appropriate Engineering Controls** | Ensure suitable suction/aeration at the work place and with operationalmachinery.Local ventilation if necessary. see also section 7. |

**Individual protection measures, such as personal protective equipment**

| | |
|---|---|
| **General information:** | No data available. |
| **Eye/face protection:** | Safety glasses with side shields If dust occurs: basket-shaped glasses |
| **Hand Protection:** | Additional Information: Wear protective gloves made of the following materials: material, rubber, leather.<br>Additional Information: The data about break through time/strength of material is not valid for undissolved solids/dust. |
| **Other:** | No special protective equipment required. |
| **Respiratory Protection:** | No special protective equipment required. If dust occurs: Dust mask with P2 particle filter |
| **Hygiene measures:** | When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. To ensure ideal skin protection: use super fatted soaps and skin cream for skin care. Wash contaminated clothing before reuse. |

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

**Appearance**

| | |
|---|---|
| **Physical state:** | solid |
| **Form:** | Powder |
| **Color:** | White |
| **Odor:** | No data available. |
| **Odor Threshold:** | Not applicable |
| **Melting Point:** | Not applicable Decomposition |
| **Boiling Point:** | Not applicable Decomposition |
| **Flammability:** | No data available. |

**Upper/lower limit on flammability or explosive limits**

| | |
|---|---|
| **Explosive limit - upper:** | No data available. |
| **Explosive limit - lower:** | No data available. |
| **Flash Point:** | Not applicable (solid) |
| **Auto-ignition temperature:** | 440 °C/824 °F<br>Method: VDI 2263 |
| **Decomposition Temperature:** | > 150 °C/> 302 °F |
| **pH:** | 4 - 6<br>40 g/l<br>20 °C/68 °F<br>1: 1 in suspension, Water/Methanol |

**Viscosity**

| | |
|---|---|
| **Dynamic viscosity:** | Not applicable (solid) |
| **Kinematic viscosity:** | Not applicable (solid) |
| **Flow Time:** | No data available. |

**Solubility(ies)**

| | |
|---|---|
| **Solubility in Water:** | hardly soluble |
| **Solubility (other):** | No data available. |
| **Partition coefficient (n-octanol/water):** | Not applicable |
| **Vapor pressure:** | Not applicable |
| **Relative density:** | No data available. |
| **Density:** | Approximate<br>2 g/cm3<br>20 °C/68 °F |
| **Bulk density:** | No data available. |
| **Vapor density (air=1):** | No data available. |

**Other information**

| | |
|---|---|
| **Explosive properties:** | Not to be expected in view of the structure |
| **Pyrophoric properties:** | Self-heating in large quantities; may catch fire. |
| **Peroxides:** | Not applicable |
| **Dust explosion properties:** | Not dust explosive VDI 2263 |
| **Evaporation Rate:** | Not applicable |
| **Minimum ignition energy:** | > 10 kJ |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity:** | No dangerous reaction known under conditions of normal use. |
| **Chemical Stability:** | Stable under recommended storage conditions. |
| **Possibility of hazardous reactions:** | Self-heating may occur |
| **Conditions to avoid:** | Hydrophobic properties disappear at temperatures > 150°C |
| **Incompatible Materials:** | None known. |
| **Hazardous Decomposition Products:** | Carbon Monoxide. Carbon Dioxide. organic products of decomposition Stable under normal conditions. Product will not undergo hazardous polymerization. |

## 11. Toxicological information

**General information:** Toxic effects from handling this product are unknown as yet.

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation:** | Information on effects are given below. |
| **Skin Contact:** | Information on effects are given below. |
| **Eye contact:** | Information on effects are given below. |
| **Ingestion:** | Information on effects are given below. |

**Acute toxicity (list all possible routes of exposure)**

**Oral**

| | |
|---|---|
| **Product:** | LD 50, Rat, Female, Male, > 5.000 mg/kg, OECD 401, (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | LD 50, Rat, Female, Male, > 5.000 mg/kg, OECD 401, (analogy) |

**Dermal**

| | |
|---|---|
| **Product:** | LD 50, Rabbit, > 5.000 mg/kg, (analogy) |

**Components:**

| | |
|---|---|
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | LD 50, Rabbit, > 5.000 mg/kg, (analogy) |

**Inhalation**

| | |
|---|---|
| **Product:** | LC 50, Rat, Female, Male, 4 h, > 5,01 mg/l, OECD 436, Dust and mist, (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | LC 50, Rat, Female, Male, 4 h, > 5,01 mg/l, Dust and mist, OECD 436, (analogy)<br>Vapour, Not toxic after single exposure, Not applicable |

**Repeated dose toxicity**

| | |
|---|---|
| **Product:** | NOAEL Rat, Male, Oral, 28 day, 7 days a week, >= 1.000 mg/kg, No negative effects. (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | NOAEL Rat, Male, Oral, 28 day, 7 days a week, >= 1.000 mg/kg, No negative effects. (analogy) |

**Skin Corrosion/Irritation**

| | |
|---|---|
| **Product:** | OECD 404, (Rabbit), Not irritating, (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | Not irritating, OECD 404, Rabbit, (analogy) |

**Serious Eye Damage/Eye Irritation**

| | |
|---|---|
| **Product:** | analogous OECD method, Rabbit, Not irritating, (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | Not irritating, analogous OECD method, Rabbit, (analogy) |

**Respiratory or Skin Sensitization**

| | |
|---|---|
| **Product:** | Local Lymph Node Assay (LLNA), OECD 429, Mouse, Not a skin sensitizer., (analogy)<br>Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer., (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | Local Lymph Node Assay (LLNA), OECD 429, Mouse, Not a skin sensitizer., (analogy)<br>Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer., (analogy) |

**Carcinogenicity**

| | |
|---|---|
| **Product:** | No evidence that cancer may be caused. |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | No evidence that cancer may be caused. |

**Germ Cell Mutagenicity**

no evidence of mutagenic effects

**In vitro**

| | |
|---|---|
| **Product:** | gene mutation test, OECD 471: , negative, (analogy)<br>gene mutation test, OECD 490: , negative, (analogy)<br>Chromosomal aberration, OECD 473: , negative, (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | gene mutation test, OECD 471: , negative, (analogy)<br>gene mutation test, OECD 490: , negative, (analogy)<br>Chromosomal aberration, OECD 473: , negative, (analogy) |

**In vivo**

| | |
|---|---|
| **Product:** | Chromosomal aberration, OECD 475, Oral, Rat, Male, negative, (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | Chromosomal aberration, OECD 475, Oral, Rat, Male, negative, (analogy) |

**Reproductive toxicity**

| | |
|---|---|
| **Product:** | no evidence of reproductiontoxic properties |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | no evidence of reproductiontoxic properties |

**Specific Target Organ Toxicity - Single Exposure**

| | |
|---|---|
| **Product:** | no evidence for hazardous properties |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | no evidence for hazardous properties |

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** no evidence for hazardous properties

**Components:**

| | |
|---|---|
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | no evidence for hazardous properties |

**Aspiration Hazard**

**Product:** Not applicable

**Components:**

| | |
|---|---|
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | Not applicable |

**Information on health hazards**

**Other hazards**

**Product:** Based on available data, the classification criteria are not met.;

## 12. Ecological information

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** LC 50, (Brachydanio rerio), 96 h, > 10.000 mg/l OECD 203, The reported toxic effects relate to the nominal concentration. (analogy)

**Components:**

| | |
|---|---|
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | LC 50, (Brachydanio rerio), 96 h, > 10.000 mg/l OECD 203, The reported toxic effects relate to the nominal concentration. (analogy) |

**Aquatic Invertebrates**

**Product:** EC 50, Daphnia magna, 24 h, > 1.000 mg/l OECD 202, The reported toxic effects relate to the nominal concentration. (analogy)

**Components:**

| | |
|---|---|
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | EC 50, Daphnia magna, 24 h, > 1.000 mg/l OECD 202, The reported toxic effects relate to the nominal concentration. (analogy) |

**Toxicity to Aquatic Plants**

**Product:** EC 50 (Desmodesmus subspicatus (green algae), 72 h): > 173 mg/l (OECD 201) (analogy)

**Components:**

| | |
|---|---|
| 2-Propenoic acid, 2-methyl-, 3- | EC 50 (Desmodesmus subspicatus (green algae), 72 h): > 173 mg/l (OECD 201) (analogy) |

(trimethoxysilyl)propylester, reaction products with silica

**Toxicity to microorganisms**

| | |
|---|---|
| **Product:** | EC 50, local activated sludge, 3 h, > 2.500 mg/l, OECD 209, (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | EC 50, local activated sludge, 3 h, > 2.500 mg/l, OECD 209, (analogy) |

**Chronic hazards to the aquatic environment:**

**Fish**

| | |
|---|---|
| **Product:** | No data available. |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | No data available. |

**Aquatic Invertebrates**

| | |
|---|---|
| **Product:** | No data available. |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | No data available. |

**Toxicity to Aquatic Plants**

| | |
|---|---|
| **Product:** | No data available. |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | No data available. |

**Toxicity to microorganisms**

| | |
|---|---|
| **Product:** | EC 50, local activated sludge, 3 h, > 2.500 mg/l, OECD 209, (analogy) |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | EC 50, local activated sludge, 3 h, > 2.500 mg/l, OECD 209, (analogy) |

**Persistence and Degradability**

**Biodegradation**

| | |
|---|---|
| **Product:** | The methods designed to assess persistence and biodegradability are not applicable to this product, in analogy to inorganic substances. |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | The methods designed to assess persistence and biodegradability are not applicable to this product, in analogy to inorganic substances. |

**BOD/COD Ratio**

| | |
|---|---|
| **Product:** | No data available. |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | No data available. |

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

| | |
|---|---|
| **Product:** | Not to be expected. |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | Not to be expected. |

**Partition Coefficient n-octanol / water (log Kow)**

| | |
|---|---|
| **Product:** | Not applicable |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | , Not applicable |

**Mobility in soil:**

| | |
|---|---|
| **Product** | No remarkable mobility in soil is to be expected. |
| **Components:** | |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propylester, reaction products with silica | No remarkable mobility in soil is to be expected. |

**Other adverse effects:**

**Other hazards**

**Product:** The data we have at our disposal do not necessitate identification concerning environmental hazard.

## 13. Disposal considerations

**Disposal methods:** Review all local, state and federal regulations concerning health and pollution for appropriate disposal procedures.

**Contaminated Packaging:** Offer rinsed packaging material to local recycling facilities. Other countries: observe the national regulations.

## 14. Transport information

**International Regulations**

**IATA-DGR**

| | | |
|---|---|---|
| UN/ID No. | : | UN 3190 |
| Proper shipping name | : | Self-heating solid, inorganic, n.o.s. (Synthetic, amorphous Silica, treated with Organosilane) |
| Class | : | 4.2 |
| Packing group | : | III |
| Labels | : | 4.2 |
| Packing instruction (cargo aircraft) | : | 471 |
| Packing instruction (passenger aircraft) | : | 469 |

**IMDG-Code**

| | | |
|---|---|---|
| UN number or ID number | : | UN 3190 |
| Proper shipping name | : | SELF-HEATING SOLID, INORGANIC, N.O.S. (Synthetic, amorphous Silica, treated with Organosilane) |
| Class | : | 4.2 |
| Packing group | : | III |
| Labels | : | 4.2 |
| EmS Code | : | F-A, S-J |
| Marine pollutant | : | no |
| Remarks | : | On deck only. |

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 15. Regulatory information

**International regulations**

**Montreal protocol**

Not applicable

**Stockholm convention**
Not applicable

**Rotterdam convention**
Not applicable

**Kyoto protocol**
Not applicable

## 16.Other information, including date of preparation or last revision

**Issue Date:** 12.07.2019

**Version #:** 1.9

**Abbreviations and acronyms:**

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

**Further Information:** No data available.

**Revision Information:** Changes since the last version are highlighted in the margin. This version replaces all previous versions.

**Disclaimer:**

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.