

Product name: AEROSIL® R 812 S

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Product name:**

AEROSIL® R 812 S

Chemical name:

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica

Additional identification**Chemical name:**

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica

Chemical formula:

-

INDEX No.

-

CAS-No.

68909-20-6

EC No.

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1.2 Relevant identified uses of the substance or mixture and uses advised against**Identified uses:**Paints and varnishes.
Toner
Flow-promoting agent.
Cosmetics
Silicone rubber
Reinforcing agent.**Uses advised against:**

Not determined.

1.3 Details of the supplier of the safety data sheet**Company Name** : Evonik Operations GmbH
Rellinghauser Str. 1-11
45128 Essen
Germany**Telephone** : +49 6181 59 4787**E-mail** : sds-hu@evonik.com**1.4 Emergency telephone number:****24-Hour Health** : +49 7623 919191**Emergency****SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

The product has not been classified as hazardous according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Not classified

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2.2 Label Elements Not applicable

2.3 Other hazards
Results of PBT and vPvB assessment

Not a PBT, vPvB substance as per the criteria of the REACH Regulation.

Endocrine disrupting properties-Toxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Endocrine disrupting properties-Ecotoxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients
Chemical name:

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica

3.1 Substances
General information: No hazardous ingredients.

Chemical name

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica

INDEX No.:
CAS-No.:

68909-20-6

EC No.:
REACH Registration No.:
SECTION 4: First aid measures
4.1 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.

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

None known.

4.3 Indication of any immediate medical attention and special treatment needed
Hazards:

None known.

Treatment:

No hazards which require special first aid measures.

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SECTION 5: Firefighting measures

- 5.1 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.
- 5.2 Special hazards arising from the substance or mixture:** May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition.
- 5.3 Advice 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.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment.
- 6.1.1 For non-emergency personnel:** Avoid dust formation.
- 6.1.2 For emergency responders:** No data available.
- 6.2 Environmental Precautions:** Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.
- 6.3 Methods and material for containment and cleaning up:** Sweep up or vacuum up spillage and collect in suitable container for disposal.
- 6.4 Reference to other sections:** For personal protection see section 8. For disposal considerations see section 13.

SECTION 7: Handling and storage:

- 7.1 Precautions for safe handling:** 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. If necessary: Local ventilation.
- 7.2 Conditions for safe storage, including any incompatibilities:** Keep in a dry place. Take precautionary measures against static discharges.
- 7.3 Specific end use(s):** Applications; see Section 1. No further information available

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SECTION 8: Exposure controls/personal protection
8.1 Control Parameters
Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Silicon dioxide, chemically prepared (CAS 112945-52-5 resp. 7631-86-9) - Inhalable dust.	TWA	6 mg/m3	UK. EH40 Workplace Exposure Limits (WELs), as amended (12 2011)
Silicon dioxide, chemically prepared (CAS 112945-52-5 resp. 7631-86-9) - Respirable dust.	TWA	2.4 mg/m3	UK. EH40 Workplace Exposure Limits (WELs), as amended (12 2011)

Biological Limit Values

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

8.2 Exposure controls
Appropriate Engineering Controls:

Ensure suitable suction/aeration at the work place and with operational machinery. Local ventilation if necessary. see also section 7.

Individual protection measures, such as personal protective equipment

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. Additional Information: The material thickness and rupture time data do not apply to non-solute solids / dusts.
Skin and Body Protection:	No special protective equipment required. Preventive skin protection
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.
Environmental Controls:	No data available.

SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties
Appearance

Physical state:	solid
Form:	Powder
Color:	White
Odor:	odorless
Odor Threshold:	Not applicable
Melting Point:	Not applicable Decomposition
Boiling Point:	Not applicable Decomposition
Flammability:	Not applicable

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Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	Not determined.
Explosive limit - lower:	Not determined.
Flash Point:	Not applicable
Self Ignition Temperature:	530 °C (VDI 2263)
Decomposition Temperature:	> 300 °C
pH:	5.5 - 7.5 (40 g/l, 20 °C) 1: 1 in suspension
Viscosity	
Dynamic viscosity:	Not applicable solid
Kinematic viscosity:	Not applicable solid
Flow Time:	Not applicable
Solubility(ies)	
Solubility in Water:	> 1 mg/l
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable
Vapor pressure:	Not applicable
Relative density:	Not applicable
Density:	Approximate 2 g/cm ³ (20 °C)
Bulk density:	Not applicable
Vapor density (air=1):	Not applicable
Particle characteristics	
Particle Size:	No data available
Particle Size Distribution:	No data available
Specific surface area:	No data available
Surface charge/Zeta potential:	No data available
Assessment:	No data available
Shape:	No data available
Crystallinity:	Crystallinity: amorphous;
Surface treatment:	Surface treatment /Coatings: Yes;

9.2 Other information

Explosive properties:	Not to be expected in view of the structure
Oxidizing properties:	Not to be expected in view of the structure
Minimum ignition temperature:	Not applicable
Dust explosion properties:	Not dust explosive
Evaporation Rate:	No data available.
Minimum ignition energy:	> 10 kJ

SECTION 10: Stability and reactivity

10.1 Reactivity:	No dangerous reaction known under conditions of normal use.
10.2 Chemical Stability:	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions:	No hazardous reactions are known if properly handled and stored.
10.4 Conditions to avoid:	Hydrophobic properties disappear at temperatures > 300°C

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10.5 Incompatible Materials: None known.

10.6 Hazardous Decomposition Products: Carbon Monoxide. Carbon Dioxide. organic products of decomposition
 Stable under normal conditions. Product will not undergo hazardous polymerization.

SECTION 11: Toxicological information

General information: Silicosis or other product specific illnesses of the respiratory tract were not observed in association with the product.

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.

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (list all possible routes of exposure)

Oral

Product: LD 50 (Rat): > 2,000 mg/kg (OECD 401) Not toxic after single exposure; limit test, No deaths observed., Based on available data, the classification criteria are not met., comparable product

Dermal

Product: Not classified for acute toxicity based on available data.

Inhalation

Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: Not irritating OECD 404 (Rabbit): Not irritating; Based on available data, the classification criteria are not met., comparable product

Serious Eye Damage/Eye Irritation

Product: Not irritating Rabbit: Not irritating Based on available data, the classification criteria are not met. comparable product

Respiratory or Skin Sensitization

Product: Maximization Test, OECD 406 (Guinea Pig): not sensitizing Based on available data, the classification criteria are not met. comparable product

Carcinogenicity

Product: No evidence that cancer may be caused.

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Germ Cell Mutagenicity

In vitro

Product: Ames test (literature): negative; Based on available data, the classification criteria are not met. comparable product;

In vivo

Product: No data available.

Reproductive toxicity

Product: no evidence of reproductiontoxic properties

Specific Target Organ Toxicity - Single Exposure

Product: no evidence for hazardous properties

Specific Target Organ Toxicity - Repeated Exposure

Product: no evidence for hazardous properties

Aspiration Hazard

Product: Not classified

11.2 Information on other hazards

Endocrine disrupting properties

Product: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.;

Other hazards

Product: An Expert Judgment stated that no classification is necessary based on present knowledge.; No toxicological tests are available on the product.;

SECTION 12: Ecological information

12.1 Toxicity:

Acute hazards to the aquatic environment:

Fish

Product: LC 50 ((Brachydanio rerio), 96 h): > 1,000 mg/l The reported toxic effects relate to the nominal concentration. tested substance: comparable product

Aquatic Invertebrates

Product: EC 50 (Daphnia magna, 48 h): > 100 mg/l limit test The reported toxic effects relate to the nominal concentration. tested substance: comparable product

Toxicity to Aquatic Plants

Product: No data available.

Toxicity to microorganisms

Product: EC 50 (activated sludge): > 1,000 mg/l (OECD 209) The reported toxic effects relate to the nominal concentration. tested substance: comparable product

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Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Toxicity to microorganisms

Product: No data available.

12.2 Persistence and Degradability

Biodegradation

Product: 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.

12.3 Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: Not to be expected.

Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: Not applicable

12.4 Mobility in soil:

Product No remarkable mobility in soil is to be expected.

12.5 Results of PBT and vPvB assessment:

Product Not a PBT, vPvB substance as per the criteria of the REACH Regulation.

12.6 Endocrine disrupting properties:

Product: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects:

Other hazards

Product: An Expert Judgment stated that no classification is necessary based on present knowledge.

Additional Information: No ecotoxicological data is available for this product.

SECTION 13: Disposal considerations
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Product name: AEROSIL® R 812 S**13.1 Waste treatment methods**

General information:	No data available.
Disposal methods:	No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. Can be disposed of with domestic refuse in accordance with the necessary technical regulations following consultation with waste disposal expert(s) and the responsible authorities. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.
Contaminated Packaging:	Offer rinsed packaging material to local recycling facilities. Other countries: observe the national regulations.

SECTION 14: Transport information**14.1 UN number or ID number**

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:****EU Regulations****Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances:** none**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances:** none**EU. REACH Annex XIV, Substances Subject to Authorization:** none**EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended:** none**EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17:** none**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I,**

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Part 1 as amended: none

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I,
Part 2 as amended: none

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I,
Part 3 as amended: none

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as
amended: none

EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC): none

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:
 none

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens
and mutagens at work.: none

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently
given birth or are breast feeding.: none

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances,
Annex I:Not applicable

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:
 none

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:
 none

15.2 Chemical safety
assessment:

No exposure or risk assessment is required for this product since it is not classified for health or environmental risks.

International regulations

Montreal protocol
 Not applicable

Stockholm convention
 Not applicable

Rotterdam convention
 Not applicable

Kyoto protocol
 Not applicable

SECTION 16: Other information

Abbreviations and acronyms:

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; **ADN** - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; **AGW** - Occupational exposure limit; **ASTM** - American Society for Testing and Materials; **AwSV** - Ordinance on facilities for handling substances that are hazardous to water; **BSB** - Biochemical oxygen demand; **c.c.** - closed cup; **CAS** - Chemical Abstract Services; **CESIO** - European Committee of Organic Surfactants and their Intermediates; **CSB** - Chemical oxygen demand; **DMEL** - Derived minimum effect level; **DNEL** - Derived no effect level; **EbC50** - median concentration in terms of reduction of growth; **EC** -

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Effective concentration; **EINECS** - European Inventory of Existing Commercial Chemical Substances; **EN** - European norm; **ErC50** - median concentration in terms of reduction of growth rate; **GGVSEB** - German ordinance for road, rail and inland waterway transportation of dangerous goods; **GGVSee** - German ordinance for sea transportation of dangerous goods; **GLP** - Good Laboratory Practice; **GMO** - Genetic Modified Organism; **IATA** - International Air Transport Association; **ICAO** - International Civil Aviation Organization; **IMDG** - International Maritime Dangerous Goods; **ISO** - International Organization For Standardization; **LD/LC** - lethal dosis/concentration; **LOAEL** - Lowest observed adverse effect level; **LOEL** - Lowest observed effect level; **M-Factor** - multiplying factor; **NOAEL** - No observed adverse effect level; **NOEC** - no observed effect concentration; **NOEL** - no observed effect level; **o.c.** - open cup; **OECD** - Organisation for Economic Cooperation and Development; **OEL** - Occupational Exposure Limit; **PBT** - Persistent, bioaccumulative, toxic; **PNEC** - Predicted no effect concentration; **REACH** - REACH registration; **RID** - Convention concerning International Carriage by Rail; **SVHC** - Substances of Very High Concern; **TA** - Technical Instructions; **TRGS** - Technical Rules for Hazardous Substances; **vPvB** - very persistent, very bioaccumulative; **WGK** - Water Hazard Class

Key literature references and sources for data: No data available.

Wording of the H-statements in section 2 and 3: none

Training information: No data available.

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

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