

Product name: AEROSIL® R 974

SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: AEROSIL® R 974

Other means of identification

CAS Number: 68611-44-9

Recommended restrictions

Recommended use: Silicone rubber
Sealant
Paints and varnishes.
Adhesive
Coating agent
Toner
Cosmetics

Restrictions on use: Not determined.

Manufacturer/Importer/Distributor Information

Company Name : Evonik Corporation
2 Turner Place
Piscataway, NJ 08854
USA

Telephone : +1 732 981 5000

E-mail : product-regulatory-services@evonik.com

Emergency telephone number:

24 Hour Emergency Telephone : +1 800 424 9300 (CHEMTREC - US & CANADA)
800 681 9531 (CHEMTREC MEXICO)
+1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazards for the product as supplied

Not classified

Hazard(s) not otherwise classified (HNOC): None.

Label Elements

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

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Precautionary Statements

3. Composition/information on ingredients

Substances

Chemical Identity	Common name and synonyms	CAS No./Unique ID	Content in percent (%)*	Trade Secret
Silane, dichlorodimethyl-, reaction products with silica		68611-44-9*	<=100%	TSC

* Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

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

Composition Comments: The components are not hazardous or are below required disclosure limits.

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:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes or until all material has been removed. Obtain medical attention. No information available.
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 hazards which require special first aid measures.
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5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

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Suitable extinguishing media:	Water spray, foam, CO2, dry powder. Adapt fire-extinguishing measures to surroundings
Unsuitable extinguishing media:	Do not use a solid water stream as it may scatter and spread 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:	No data available.
Special protective equipment for fire-fighters:	As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid dust formation.
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:	Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

7. Handling and storage

Handling

Technical measures:	No data available.
Local/Total ventilation:	No data available.
Safe handling advice:	Use with adequate 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 the workplace threshold limit value is exceeded and/or the substance is released, use appropriate respiratory protection. Avoid dust formation. Take precautionary measures against static discharges.
Contact avoidance measures:	No data available.

Storage

Safe storage conditions:	Take precautionary measures against static discharges. Keep containers tightly sealed and store in a dry, cool place. Store in accordance with local/regional/national/international regulations.
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Safe packaging materials:

No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Components	Type	Form of exposure	Exposure Limit Values		Source
Silicon dioxide, chemically prepared (CAS 112945-52-5 resp. 7631-86-9)	PEL			6 mg/m ³	
	PEL			20 millions of particles per cubic foot of air	

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

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

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection:

Wear safety glasses with side shields. In case dusts are formed, wear close fitting protective goggles.

Skin Protection

Hand Protection:

Additional Information: Use impermeable gloves.

Skin and Body Protection:

Safety showers and eye showers should be easily accessible. In order to determine further specifications applicable to the personal protection equipment, a hazard assessment according to the OSHA standards (29 CFR 1910.132) for personal protection equipment (PPE) is recommended before the product is used.

Respiratory Protection:

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

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.

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9. Physical and chemical properties

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:	No data available.

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	Not applicable
Explosive limit - lower:	Not applicable
Flash Point:	Not applicable (solid)
Auto-ignition temperature:	> 1112 °F/> 600 °C Method: VDI 2263
Decomposition Temperature:	> 572 °F/> 300 °C
pH:	3.7 - 4.7 (68 °F/20 °C) Concentration: 40 g/l 1: 1 in suspension

Viscosity

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

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:	No data available.
Density:	Approximate 2 g/cm ³ (68 °F/20 °C)
Bulk density:	No data available.
Vapor density (air=1):	No data available.
Particle characteristics:	No data available.

Other information

Explosive properties:	Not to be expected in view of the structure
Burning Number:	Burning Number: 1
Peroxides:	Not applicable
Dust explosion properties:	Not dust explosive

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Evaporation Rate:	Not applicable
Minimum ignition energy:	> 1 J

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:	No hazardous reactions are known if properly handled and stored.
Conditions to avoid:	Hydrophobic properties disappear at temperatures > 300°C
Incompatible Materials:	None known.
Hazardous Decomposition Products:	Carbon Monoxide. Carbon Dioxide. organic products of decomposition

11. Toxicological information

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

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Acute toxicity (list all possible routes of exposure)

Oral

Product:	LD 50, Rat, Female, Male, > 5,000 mg/kg, OECD 401, (analogy)
Components:	
Silane, dichlorodimethyl-, 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:	

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Silane, dichlorodimethyl-,
 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:
 Silane, dichlorodimethyl-, LC 50, Rat, Female, Male, 4 h, > 5.01 mg/l, Dust and mist, OECD 436,
 reaction products with (analogy)
 silica 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:
 Silane, dichlorodimethyl-, NOAEL Rat, Male, Oral, 28 day, 7 days a week, >= 1,000 mg/kg, No
 reaction products with negative effects. (analogy)
 silica

Skin Corrosion/Irritation

Product: Not irritant, OECD 404, (Rabbit), (analogy)

Components:
 Silane, dichlorodimethyl-, Not irritating, OECD 404, Rabbit, (analogy)
 reaction products with
 silica

Serious Eye Damage/Eye Irritation

Product: Not irritating, analogous OECD method, Rabbit, (analogy)

Components:
 Silane, dichlorodimethyl-, Not irritating, analogous OECD method, Rabbit, (analogy)
 reaction products with
 silica

Respiratory or Skin Sensitization

Product: Local Lymph Node Assay (LLNA), OECD 429, Mouse, Not a skin sensitizer., (analogy)
 Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer., (analogy)

Components:
 Silane, dichlorodimethyl-, Local Lymph Node Assay (LLNA), OECD 429, Mouse, Not a skin
 reaction products with sensitizer., (analogy)
 silica Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer., (analogy)

Carcinogenicity

Product: No evidence that cancer may be caused. Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA.

Components:
 Silane, dichlorodimethyl-, No evidence that cancer may be caused.
 reaction products with
 silica

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogens present or none present in regulated quantities

ACGIH: US.ACGIH Threshold Limit Values:

No carcinogens present or none present in regulated quantities

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US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended:

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

no evidence of mutagenic effects

In vitro

Product: gene mutation test, OECD 471: , negative, (analogy)
gene mutation test, OECD 490: , negative, (analogy)
Chromosomal aberration, OECD 473: , negative, (analogy)

Components:

Silane, dichlorodimethyl-, gene mutation test, OECD 471: , negative, (analogy)
reaction products with gene mutation test, OECD 490: , negative, (analogy)
silica Chromosomal aberration, OECD 473: , negative, (analogy)

In vivo

Product: Chromosomal aberration, OECD 475, Oral, Rat, Male, negative,
(analogy)

Components:

Silane, dichlorodimethyl-, Chromosomal aberration, OECD 475, Oral, Rat, Male, negative,
reaction products with (analogy)
silica

Reproductive toxicity**Effects on fertility**

Product: Remarks: No negative effects.

Components:

Silane, dichlorodimethyl-, Remarks: no evidence of reproductiontoxic properties
reaction products with
silica

Effects on fetal development

Not classified based on available data.

Reproductive toxicity - Assessment

Product: Reproductive toxicity: no evidence of reproductiontoxic properties

Components:

Silane, dichlorodimethyl-, Reproductive toxicity: no evidence of reproductiontoxic properties
reaction products with
silica

Specific Target Organ Toxicity - Single Exposure

Product: no evidence for hazardous properties

Components:

Silane, dichlorodimethyl-, no evidence for hazardous properties
reaction products with
silica

Specific Target Organ Toxicity - Repeated Exposure

Product: no evidence for hazardous properties

Components:

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Silane, dichlorodimethyl-, reaction products with silica no evidence for hazardous properties

Aspiration Hazard

Product: Not applicable

Components:
 Silane, dichlorodimethyl-, 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:

Toxicity to Aquatic Plants

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

Components:

Silane, dichlorodimethyl-, reaction products with silica EC 50, Desmodesmus subspicatus (green algae), 72 h, > 173 mg/l, OECD 201, (analogy)

Toxicity to microorganisms

Product: EC 50, local activated sludge, 3 h, > 2,500 mg/l, OECD 209, (analogy)

Components:

Silane, dichlorodimethyl-, reaction products with silica EC 50, local activated sludge, 3 h, > 2,500 mg/l, OECD 209, (analogy)

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:

Silane, dichlorodimethyl-, 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:

Silane, dichlorodimethyl-, 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)

Chronic hazards to the aquatic environment:

Fish

No data available.

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Aquatic Invertebrates

No data available.

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: Silane, dichlorodimethyl-, 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

No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: Not to be expected.

Components: Silane, dichlorodimethyl-, reaction products with silica
Not to be expected.

Partition Coefficient n-octanol / water (log Kow)

Product: Not applicable

Components: Silane, dichlorodimethyl-, reaction products with silica
Not applicable

Mobility in soil:

Product: No remarkable mobility in soil is to be expected.

Components: Silane, dichlorodimethyl-, reaction products with silica
No remarkable mobility in soil is to be expected.

Results of PBT and vPvB assessment:

No data available.

Other adverse effects:

Additional ecological information

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

13. Disposal considerations

Disposal methods: Waste must be disposed of in accordance with federal, state, provincial and local regulations.

Contaminated Packaging: Packaging material should be recycled or disposed of in accordance with federal, state and local regulations. Packaging material should be recycled or disposed of in accordance with federal, state and local regulations.

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14. Transport information**Domestic regulation****49 CFR**

Not regulated as a dangerous good

Remarks : Not dangerous according to transport regulations.

International Regulations**UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

15. Regulatory information**US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721 and 725, Subpt E)

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Not classified

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

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US. EPCRA (SARA Title III) Section 313 Toxic Chemical Release Inventory (TRI) Reporting

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

Inventory Status:

Taiwan Chemical Substance Inventory:	On or in compliance with the inventory Pre-registration is requested for specific importer.
Australia Industrial Chem. Act (AIC):	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
Ontario Inventory:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory Commercial Status: Active
Switzerland New Subs Notified/Registered:	On or in compliance with the inventory
Vietnam National Chemical Inventory:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory EU-REACH compliant for Evonik Operations GmbH and its affiliates as EU manufacturer/EU importer.

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

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Version #: 2.0

Revision Date: 09/02/2025

Date of first report version: 05/09/2019

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Abbreviations and acronyms:

: Source: 54 FR 2701
/ PEL: Permissible exposure limit:

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 Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Disclaimer:

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