

*Hidrofób füstölt szilícium-dioxid*

**AEROSIL R 974 jelentése hidrofób égetett szilícium-dioxid aftertreated DDS (dimetil-diklór) alapuló hidrofil füstölt szilika fajlagos felülete 200 m<sup>2</sup> / g.**

## Alkalmazások

- Szilikon gumi és szilikon tömítőanyagok
- Festékek és bevonatok
- Negatív festék
- Ragasztás
- Bevonó polimerek
- kozmetikum

## Tulajdonságok

- Hidrofób komponens az RTV-1 csomagolású szilikon tömítőanyagok sűrítésére és megerősítésére
- Javítja a szilikon tömítőanyagok eltarthatóságát
- Vízálló, folyékony rendszerek sűrítésére és hidrofobizálására
- (Komplex) folyadékrendszerek reológiai szabályozása
- Alkalmazási célú bevonatokban történő alkalmazáshoz, pigment stabilizáláshoz és korrózióvédelem javításához
- Javítja az ofszet nyomdafestékek hidrofóbítását és reológiáját
- A porok szabad áramlási és tapadásgátló tulajdonságainak javítása és fenntartása
- A nagy felület miatt a sűrűség és a tixotróp hatás, valamint az átlátszóság is javult

## Biztonság és kezelés

A biztonsági adatlapot eljuttatjuk az első kézbesítéshez és az azt követő módosításokhoz. Ezenkívül az Evonik Resource Efficiency GmbH termékbiztonsági osztályát az [sds-hu@evonik.com](mailto:sds-hu@evonik.com) e-mail címen lehet megkeresni konkrét kérdésekre. Javasoljuk, hogy a termék használata előtt figyelmesen olvassa el a biztonsági adatlapot.

## Csomagolás és tárolás

Az AEROSIL® R 974 több rétegű 10 kg-os zsákokban kerül forgalomba. Javasoljuk, hogy a terméket száraz körülmények között, zárt tárolóedényekben tárolja és az anyagot illékony anyagoktól védje. Az AEROSIL® R 974-et a gyártást követő 2 éven belül fel kell használni.

A részletes információkért kérjük, töltse le a termékinformációt (pdf).

- [kínai](#)
- [angol](#)
- [Francia](#)
- [német](#)
- [japán](#)
- [orosz](#)

## céginformáció

Jogi nyilatkozat

Adatvédelmi irányelvek

## *Hydrophobic fumed silica*

AEROSIL® R 974 is a hydrophobic fumed silica aftertreated with DDS (Dimethyldichlorosilane) based on a hydrophilic fumed silica with a specific surface area of 200 m<sup>2</sup>/g.

### Applications

- Silicone rubber and silicone sealants
- Paints and coatings
- Negative toner
- Adhesives
- Coating polymers
- Cosmetics

### Properties

- Hydrophobic component for thickening and reinforcement of RTV-1 pack silicone sealants
- Improves shelf-life of silicone sealants
- Water resistant, for thickening and hydrophobising of liquid systems
- Rheology control of (complex) liquid systems
- For use in coatings as anti-settling agent, for pigment stabilization and improvement of corrosion protection
- Improves hydrophobicity and rheology of offset printing inks
- Improvement and maintenance of free flow and anti-caking characteristics of powders
- Due to large surface area improved thickening and thixotropic effect as well as transparency

### Safety & Handling

A safety data sheet will be provided with your first delivery and with subsequent revisions. Additionally, the Product Safety Department of Evonik Resource Efficiency GmbH can be contacted via mail at [sds-hu@evonik.com](mailto:sds-hu@evonik.com) for specific questions. We recommend to read the safety data sheet carefully prior to use of the product.

### Packaging and Storage

AEROSIL® R 974 is supplied in multiple layer 10 kg bags. We recommend to store the product in closed containers under dry conditions and to protect the material from volatile substances. AEROSIL® R 974 should be used within 2 years after production.

Please download the product information (pdf) for detailed information.

- [chinese](#)
- [english](#)
- [french](#)
- [german](#)
- [japanese](#)
- [russian](#)

### Company Information

Legal Notice

Privacy Policy

# 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 974

**Chemical name:**

Silane, dichlorodimethyl-, reaction products with silica

**Additional identification**

<b>Chemical name:</b>	Silane, dichlorodimethyl-, reaction products with silica
<b>Chemical formula:</b>	-
<b>INDEX No.</b>	-
<b>CAS-No.</b>	68611-44-9
<b>EC No.</b>	-

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

<b>Identified uses:</b>	Silicone rubber
	Sealant
	Paints and varnishes.
	Adhesive
	Coating agent
	Toner
	Cosmetics

**Uses advised against:**

### 1.3 Details of the supplier of the safety data sheet

Company Name : Evonik Resource Efficiency GmbH  
RE-ES-PS Hanau  
Postfach 1345  
63403 Hanau  
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

**2.2 Label Elements**

Not applicable

**2.3 Other hazards**

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

**SECTION 3: Composition/information on ingredients**
**Chemical name:**

Silane, dichlorodimethyl-, reaction products with silica

**3.1 Substances**
**Chemical name** Silane, dichlorodimethyl-, reaction products with silica

**INDEX No.:**
**CAS-No.:** 68611-44-9

**EC No.:**
**REACH Registration No.:** -No data available.

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Silane, dichlorodimethyl-, reaction products with silica		68611-44-9		-	No data available.	#

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

# This substance has workplace exposure limit(s).

## This substance is listed as SVHC

**SECTION 4: First aid measures**
**4.1 Description of first aid measures**
**Inhalation:** In case product dust is released: Possible discomfort: cough, sneezing  
Move victims into 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.

**SECTION 5: Firefighting measures**
**5.1 Extinguishing media**

**Suitable extinguishing media:** Water spray, foam, CO<sub>2</sub>, 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.

**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. chlorine containing substances

**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.

## 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:** Wear personal protective equipment; see section 8. 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

## 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/m <sup>3</sup>	UK. EH40 Workplace Exposure Limits (WELs) (12 2011)

Silicon dioxide, chemically prepared (CAS 112945-52-5 resp. 7631-86-9) - Respirable dust.	TWA	2.4 mg/m <sup>3</sup>	UK. EH40 Workplace Exposure Limits (WELs) (12 2011)
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## 8.2 Exposure controls

**Appropriate Engineering Controls:** No data available.

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

<b>Eye/face protection:</b>	Safety glasses with side-shields If dust occurs: basket-shaped glasses
<b>Hand Protection:</b>	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.
<b>Skin and Body Protection:</b>	No special protective equipment required.
<b>Respiratory Protection:</b>	No special protective equipment required. If dust occurs: Dust mask with P2 particle filter
<b>Hygiene measures:</b>	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.
<b>Environmental Controls:</b>	No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state:</b>	solid
<b>Form:</b>	Powder
<b>Color:</b>	White
<b>Odor:</b>	odourless
<b>Odor Threshold:</b>	Not applicable
<b>pH:</b>	3.7 - 4.7 (40 g/l, 20 °C) 1: 1 in suspension
<b>Melting Point:</b>	Not applicable Decomposition
<b>Boiling Point:</b>	Not applicable Decomposition
<b>Flash Point:</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Flammability (solid, gas):</b>	not determined
<b>Flammability Limit - Upper (%):</b>	not determined
<b>Flammability Limit - Lower (%):</b>	not determined
<b>Vapor pressure:</b>	Not applicable
<b>Vapor density (air=1):</b>	No data available.
<b>Density:</b>	approx. 2 g/cm <sup>3</sup> (20 °C)
<b>Relative density:</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	> 1 mg/l
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	not determined

<b>Self Ignition Temperature:</b>	not determined
<b>Decomposition Temperature:</b>	> 300 °C
<b>Kinematic viscosity:</b>	No data available.
<b>Dynamic viscosity:</b>	Not applicable

## 9.2 Other information

<b>Explosive properties:</b>	Not to be expected in view of the structure
<b>Oxidizing properties:</b>	not determined
<b>Minimum ignition energy:</b>	not determined
<b>Minimum ignition temperature:</b>	> 600 °C (VDI Guideline 2263 sheet 1)

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>10.2 Chemical Stability:</b>	Stable under recommended storage conditions.
<b>10.3 Possibility of hazardous reactions:</b>	No hazardous reactions are known if properly handled and stored.
<b>10.4 Conditions to avoid:</b>	Hydrophobic properties disappear at temperatures > 300°C
<b>10.5 Incompatible Materials:</b>	None known.
<b>10.6 Hazardous Decomposition Products:</b>	Carbon Monoxide. Carbon Dioxide. organic products of decomposition organic halogen compounds

## SECTION 11: Toxicological information

<b>General information:</b>	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

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

## 11.1 Information on toxicological effects

### Acute toxicity

#### Oral

<b>Product:</b>	LD 50 (Rat): > 5,000 mg/kg (analogy OECD) comparable product, Based on available data, the classification criteria are not met.
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#### Components:

Silane, dichlorodimethyl-, reaction products with silica	LD 50 (Rat): > 5,000 mg/kg comparable product
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#### Dermal

<b>Product:</b>	No data available.
<b>Components:</b>	
Silane, dichlorodimethyl-, reaction products with	No data available.

silica

**Inhalation  
Product:**

LC0 (Rat, 4 h) 0.477 mg/l (analogy OECD) (maximum concentration attainable in experiments), Based on available data, the classification criteria are not met.

**Components:**

Silane, dichlorodimethyl-,  
reaction products with  
silica

LC0 (Rat, 4 h) 0.477 mg/l (maximum concentration attainable in experiments), comparable product  
The substance or mixture has no acute inhalation toxicity, Dusts, mists and fumes

**Repeated dose toxicity**

**Product:**

No data available.

**Components:**

Silane, dichlorodimethyl-,  
reaction products with  
silica

No data available.

**Skin Corrosion/Irritation:**

**Product:**

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

**Components:**

Silane,  
dichlorodimethyl-,  
reaction products with  
silica

analogous OECD method (Rabbit): comparable product

**Serious Eye Damage/Eye  
Irritation:**

**Product:**

not irritating

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

**Components:**

Silane,  
dichlorodimethyl-,  
reaction products with  
silica

analogous OECD method (Rabbit): Not irritating comparable product

**Respiratory or Skin  
Sensitization:**

**Product:**

Not known.

**Components:**

Silane,  
dichlorodimethyl-,  
reaction products with  
silica

Not Classified

**Germ Cell Mutagenicity**

**In vitro**

**Product:**

Ames test (analogous OECD method): negative Based on available data, the classification criteria are not met.

**Components:**

Silane, dichlorodimethyl-,  
reaction products with  
silica

No data available.



**In vivo**

**Product:** No data available.

**Components:**

Silane, dichlorodimethyl-, reaction products with silica No data available.

**Carcinogenicity**

**Product:** No data available.

**Components:**

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

**Reproductive toxicity**

**Product:** No data available.

**Components:**

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

**Specific Target Organ Toxicity - Single Exposure**

**Product:** no evidence for hazardous properties

**Components:**

Silane, dichlorodimethyl-, reaction products with silica Not classified no evidence for hazardous properties

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** no evidence for hazardous properties

**Components:**

Silane, dichlorodimethyl-, reaction products with silica Not classified no evidence for hazardous properties

**Aspiration Hazard**

**Product:** Not classified

**Components:**

Silane, dichlorodimethyl-, reaction products with silica Not classified

**Other adverse effects:**

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

**SECTION 12: Ecological information**
**12.1 Toxicity**
**Acute toxicity**
**Fish**

**Product:**

LC 50 ((Brachydanio rerio), 96 h): > 10,000 mg/l (OECD 203) The reported

toxic effects relate to the nominal concentration.

#### 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.

#### Aquatic Invertebrates

##### Product:

EC 50 (Daphnia magna, 24 h): > 10,000 mg/l (OECD 202) The reported  
toxic effects relate to the nominal concentration.

#### Components

Silane, dichlorodimethyl-,  
reaction products with  
silica

EC 50 (Daphnia magna (Water flea), 24 h): > 10,000 mg/l (OECD 202) The  
reported toxic effects relate to the nominal concentration.

#### Toxicity to Aquatic Plants

##### Product:

No data available.

#### Components

Silane, dichlorodimethyl-,  
reaction products with  
silica

No data available.

#### Toxicity to microorganisms

##### Product:

No data available.

#### Components

Silane, dichlorodimethyl-,  
reaction products with  
silica

No data available.

#### Chronic Toxicity

##### Fish

##### Product:

No data available.

#### Components

Silane, dichlorodimethyl-,  
reaction products with  
silica

No data available.

#### Aquatic Invertebrates

##### Product:

No data available.

#### Components

Silane, dichlorodimethyl-,  
reaction products with  
silica

No data available.

#### Toxicity to Aquatic Plants

##### Product:

No data available.

#### Components

Silane, dichlorodimethyl-,  
reaction products with  
silica

No data available.

## 12.2 Persistence and Degradability

### Biodegradation

<b>Product:</b>	The methods designed to assess persistence and biodegradability are not applicable to this product, in analogy to inorganic substances.
<b>BOD/COD Ratio Product</b>	No data available.
<b>Components</b> Silane, dichlorodimethyl-, reaction products with silica	No data available.
<b>12.3 Bioaccumulative potential Product:</b>	Not to be expected.
<b>12.4 Mobility in soil:</b>	No remarkable mobility in soil is to be expected.
<b>12.5 Results of PBT and vPvB assessment:</b> Silane, dichlorodimethyl-, reaction products with silica	Not a PBT, vPvB substance as per the criteria of the REACH Regulation.  Non-classified vPvB substance Non-classified PBT substance
<b>12.6 Other adverse effects:</b>	An Expert Judgment stated that no classification is necessary based on present knowledge.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

<b>General information:</b>	No data available.
<b>Disposal methods:</b>	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.
<b>Contaminated Packaging:</b>	Offer rinsed packaging material to local recycling facilities. Other countries: observe the national regulations.

### SECTION 14: Transport information

- 14.1 UN 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 Transport in bulk according to Annex II of Marpol and the IBC Code

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

#### 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

### 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** - 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**

**Training information:** No data available.

**SDS No.:**

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

**Disclaimer:**

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