

**SAFETY DATA SHEET****ULTRASIL® 9100 GR**

Material no.		Version	<b>2.0 / US</b>
Specification	<b>170419</b>	Revision date	<b>05/18/2015</b>
Order Number		Print Date	<b>07/02/2015</b>
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**1. Identification****1.1. Product identifier**

Trade name	ULTRASIL® 9100 GR
Chemical Name	Silicon dioxide, chemically prepared
CAS-No.	112926-00-8, 7631-86-9

**1.2. Recommended use of the chemical and restrictions on use**

Relevant applications identified	Tyres
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**1.3. Details of the supplier of the safety data sheet**

Company	Evonik Corporation USA 299 Jefferson Road Parsippany, NJ 07054-0677 USA
Telephone	973-929-8000
Telefax	973-929-8040
Email address	Product-Regulatory-Services@Evonik.com

**1.4. 24 HOUR EMERGENCY TELEPHONE NUMBERS:**

<b>CHEMTREC - US &amp; CANADA:</b>	800-424-9300
<b>CHEMTREC MEXICO:</b>	01-800-681-9531
<b>CHEMTREC INTERNATIONAL:</b>	+1 703-527-3887 (collect calls accepted)
Product Regulatory Services	: 973-929-8060

**2. Hazards identification****2.1. Classification of the substance or mixture**

Classification according to Regulation 29CFR 1910.1200	
Remarks	Not a hazardous substance or mixture.

**2.2. Label elements**

Statutory basis	Classification according to Regulation 29CFR 1910.1200
Remarks	Not a hazardous substance or mixture.

**2.3. Other hazards**

**Silicon dioxide, chemically prepared** A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

**3. Composition/information on ingredients**

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**3.1. Substances****• Silicon dioxide, chemically prepared**

CAS-No. 112926-00-8

Remarks Not a hazardous substance or mixture.

**3.2. Mixtures  
not applicable****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 soap and plenty of water.

**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.

**Ingestion**

If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.

**4.2. Most important symptoms and effects, both acute and delayed****Symptoms**

None known

**4.3. Indication of any immediate medical attention and special treatment needed**

No hazards which require special first aid measures.

**5. Fire-fighting 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**

None known.

**5.3. Advice for firefighters**

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

**6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protective equipment.

**6.2. Environmental precautions**

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Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil. Do not allow entrance in sewage water, soil, stretches of water, drainage systems, surface water., Local authorities should be advised if significant spillages cannot be contained.

**6.3. Methods and material for containment and cleaning up**

Vacuum up immediately. A vacuum cleaner with a high-efficiency filtration system is recommended. To avoid raising dust do not use brooms or compressed air. Collect and place in correctly labelled containers. For disposal see Section 13.

**Additional advice**

Avoid dust formation.

**7. Handling and storage****7.1. Precautions for safe handling**

Use with adequate ventilation.

**7.2. Conditions for safe storage, including any incompatibilities****Advice on protection against fire and explosion**

When repairs of the production system are to be made (e.g. welding work), the section to be repaired must be essentially free of product.

Take measures to prevent the build up of electrostatic charge.

**Storage**

Keep container tightly closed in a dry and well-ventilated place.

**8. Exposure controls/personal protection****8.1. Control parameters**

• Silicon dioxide, chemically prepared		
CAS-No.	112926-00-8 7631-86-9	
Control parameters	5 mg/m <sup>3</sup>	Permissible exposure limit:(OSHA Z1)
type of exposure	Respirable fraction.	
Control parameters	15 mg/m <sup>3</sup>	Permissible exposure limit:(OSHA Z1)
type of exposure	Total dust.	
Control parameters	20millions of particles per cubic foot of air	Time Weighted Average (TWA):(Z3)
Control parameters	0.8 mg/m <sup>3</sup>	Time Weighted Average (TWA):(Z3)
	The exposure limit is calculated from the equation, 80/(%SiO <sub>2</sub> ), using a value of 100% SiO <sub>2</sub> . Lower values of % SiO <sub>2</sub> will give higher exposure limits.	

**8.2. Exposure controls****Personal protective equipment****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.

**Hand protection**

Use impermeable gloves.

**Eye protection**

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

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**Skin and body protection**

A safety shower and eye wash fountain should be readily available.

To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

**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 re-use.

**9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

physical state	solid
Colour	white
Form	granular
Odour	odorless
Odour Threshold	not applicable
pH	ca. 6.2 (50 g/l) (20 °C) Method: DIN / ISO 787 / 9 (suspension)
Melting point/range	ca. 1700 °C
Boiling point/range	not determined
Flash point	not applicable
Evaporation rate	not applicable
Flammability (solid, gas)	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Vapour pressure	not applicable
Vapour density	not applicable
Density	ca. 2 g/cm <sup>3</sup> (20 °C)
Water solubility	hardly soluble
Partition coefficient: n-octanol/water	not applicable
Autoignition temperature	not applicable
Thermal decomposition	> 2000 °C
Viscosity, dynamic	not applicable

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**9.2. Other information**

Explosiveness	Not to be expected in view of the structure
Bulk density	ca. 270 kg/m <sup>3</sup> Method: ASTM D 1513
Minimum ignition energy	not applicable
Tapped density	ca. 300 kg/m <sup>3</sup>

**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**

Possibility of hazardous reactions      No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid**

None known.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

None known.

Stable under normal conditions.

Product will not undergo hazardous polymerization.

**11. Toxicological information****11.1. Information on toxicological effects**

Acute oral toxicity	LD50 Rat: > 5000 mg/kg Method: OECD Test Guideline 401 comparable product
Acute inhalation toxicity	LC0 Rat: 0.69 mg/l / 4 h Method: analogous OECD method No deaths occurred. comparable product
Acute dermal toxicity	LD50 Rabbit: > 5000 mg/kg comparable product
Skin irritation	Rabbit not irritating Method: analogous OECD method comparable product

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Eye irritation	Rabbit not irritating Method: analogous OECD method comparable product
Sensitization	not known
Assessment of STOT single exposure	no evidence for hazardous properties
Assessment of STOT repeat exposure	no evidence for hazardous properties
Risk of aspiration toxicity	No aspiration toxicity classification
Mutagenicity assessment	no evidence of mutagenic effects
Carcinogenicity	No evidence that cancer may be caused.
carcinogenicity assessment	Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA.
Toxicity to reproduction	no evidence of reproductiontoxic properties
Human experience	Silicosis or other product specific illnesses of the respiratory tract were not observed in association with the product.
Further information	The classification criteria are not met based on the available data.

**12. Ecological information****12.1. Toxicity**

Toxicity to fish LC50 (Brachydanio rerio): > 10000 mg/l / 96 h  
Method: OECD 203  
The reported toxic effects relate to the nominal concentration.

Toxicity in aquatic invertebrates EC50 Daphnia magna: > 1000 mg/l / 24 h  
Method: OECD 202  
The reported toxic effects relate to the nominal concentration.

**12.2. Persistence and degradability**

Biodegradability The methods for determining biodegradability are not applicable to inorganic substances.

**12.3. Bioaccumulative potential**

Bioaccumulation Not to be expected.

**12.4. Mobility in soil**

Mobility No remarkable mobility in soil is to be expected.

**12.5. Other adverse effects**

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Further Information

The classification criteria are not met based on the available data.

**13. Disposal considerations****13.1. Waste treatment methods****Product**

Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

**Uncleaned packaging**

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

**14. Transport information****Not dangerous according to transport regulations.**

- |   |     |
|---|-----|
| 14.1. UN number:                                | --  |
| 14.2. UN proper shipping name:                  | --  |
| 14.3. Transport hazard class(es):               | --  |
| 14.4. Packing group:                            | --  |
| 14.5. Environmental hazards (Marine pollutant): | --  |
| 14.6. Special precautions for user:             | Yes |
- Not dangerous according to transport regulations.

**15. Regulatory information****US Federal Regulations****OSHA**

If listed below, chemical specific standards apply to the product or components:

- None listed

**Clean Air Act Section (112)**

If listed below, components present at or above the de minimus level are hazardous air pollutants:

- None listed

**CERCLA Reportable Quantities**

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

- None listed

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**SARA Title III Section 311/312 Hazard Categories**

The product meets the criteria only for the listed hazard classes:

- No SARA Hazards

**SARA Title III Section 313 Reportable Substances**

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

**Toxic Substances Control Act (TSCA)**

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed

**State Regulations****California Proposition 65**

A warning under the California Drinking Water Act is required only if listed below:

- None listed

An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.

**HMIS Ratings**

Health :	1
Flammability :	0
Physical Hazard :	0

**NFPA Ratings**

Health :	1
Flammability :	0
Reactivity :	0

**16. Other information****Further information**

Revision date 05/18/2015

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



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**Legend**

<b>ACC</b>	American Chemistry Council
<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>ACS</b>	Advisory Committee on Sustainability
<b>ADI</b>	Acceptable Daily Intake
<b>ASTM</b>	American Society for Testing and Materials
<b>ATP</b>	Adaptation to Technical Progress
<b>BCF</b>	Bioconcentration factor
<b>BOD</b>	Biochemical oxygen demand
<b>c.c.</b>	closed cup
<b>CAO</b>	Cargo Aircraft Only
<b>Carc</b>	Carcinogen
<b>CAS</b>	Chemical Abstract Services
<b>CDN</b>	Canada
<b>CEPA</b>	Canadian Environmental Protection Act
<b>CERCLA</b>	Comprehensive Environmental Response – Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>CMR</b>	carcinogenic-mutagenic-toxic for reproduction
<b>COD</b>	Chemical oxygen demand
<b>DIN</b>	German Institute for Standardization
<b>DMEL</b>	Derived minimum effect level
<b>DNEL</b>	Derived no effect level
<b>DOT</b>	Department of Transportation
<b>EC50</b>	half maximal effective concentration
<b>EPA</b>	Environmental Protection Agency
<b>ErC50</b>	Reduction of Growth Rate
<b>ERG</b>	Emergency Response Guide Book
<b>FDA</b>	Food and Drug Administration
<b>GHS</b>	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
<b>GLP</b>	Good Laboratory Practice
<b>GMO</b>	Genetic Modified Organism
<b>HCS</b>	Hazard Communication Standard
<b>HMIS</b>	Hazardous Materials Identification System
<b>IARC</b>	International Agency for Research on Cancer
<b>IATA</b>	International Air Transport Association
<b>IBC</b>	Intermediate Bulk Container
<b>ICAO-TI</b>	International Civil Aviation Organization- Technical Instructions
<b>ICCA</b>	International Council of Chemical Association
<b>ID</b>	Identification number
<b>IMDG</b>	International Maritime Dangerous Goods
<b>IUPAC</b>	International Union of Pure and Applied Chemistry
<b>ISO</b>	International Organization For Standardization
<b>LC50</b>	50 % Lethal Concentration
<b>LD50</b>	50 % Lethal Dose
<b>L(EC50)</b>	LC50 or EC50
<b>LOAEL</b>	Low est observed adverse effect level
<b>LOEL</b>	Low est observed effect level
<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships
<b>NFPA</b>	National Fire Protection Association
<b>NOAEL</b>	No observed adverse effect level
<b>NOEC</b>	no observed effect concentration
<b>NOEL</b>	no observed effect level
<b>o. c.</b>	open cup
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>OEL</b>	Occupational Exposure Limit
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PBT</b>	Persistent, bioaccumulative, toxic
<b>PEC</b>	Predicted effect concentration
<b>PNEC</b>	Predicted no effect concentration
<b>RQ</b>	Reportable Quantity
<b>SDS</b>	Safety Data Sheet
<b>STOT</b>	Specific Target Organ Toxicity
<b>UN</b>	United Nations
<b>vPvB</b>	very persistent, very bioaccumulative

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**voc** volatile organic compounds  
**WHMIS** Workplace Hazardous Materials Information System  
**WHO** World Health Organization