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SECTION 1: Identification of the substance/mixture and of the company	y/undertaking
· 1.1 Product identifier	
· Trade name: <u>Silicon(IV) oxide, elec. gr. (99.999%-Si) PURATREM</u>	
 Item number: 98-0145 CAS Number: 7631-86-9 EC number: 231-545-4 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available. 	
 • 1.3 Details of the supplier of the safety data sheet • Manufacturer/Supplier: Strem Chemicals, Inc. 7 Mulliken Way NEWBURYPORT, MA 01950 USA info@strem.com 	
• Further information obtainable from: Technical Department • 1.4 Emergency telephone number: EMERGENCY: CHEMTREC: + 1 (800) 424-9300 During normal opening times: +1 (978) 499-1600	
SECTION 2: Hazards identification • 2.1 Classification of the substance or mixture • Classification according to Regulation (EC) No 1272/2008 The substance is not classified according to the CLP regulation.	
· 2.2 Label elements · Labelling according to Regulation (EC) No 1272/2008 Void	

- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements
- P262 Do not get in eyes, on skin, or on clothing.
- *P280 Wear protective gloves/protective clothing/eye protection/face protection.*
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P403+P233Store in a well-ventilated place. Keep container tightly closed.P501Dispose of contents/container in accordance with local/regional/national/international
regulations.

 \cdot 2.3 Other hazards

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Chemical characterisation: Substances

· CAS No. Description

7631-86-9 silicon dioxide, chemically prepared

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· Identification number(s)

• EC number: 231-545-4

SECTION 4: First aid measures

• 4.1 Description of first aid measures

- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

 $No\ further\ relevant\ information\ available.$

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2 Environmental precautions: No special measures required.
- \cdot 6.3 Methods and material for containment and cleaning up:
- Dispose contaminated material as waste according to item 13.
- · 6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling No special measures required.
- Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

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8.1 Control parameters	
Additional information: The lists valid du	e monitoring at the workplace: Not required. uring the making were used as basis.
8.2 Exposure controls	
Personal protective equipment:	
General protective and hygienic measure The usual precautionary measures are to b	
Respiratory protection: Not required.	be untered to when hundring chemiculs.
Protection of hands:	
M	
Protective gloves	
The glove material has to be impermeable	e and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation	to the glove material can be given for the product/ the preparation/ th
chemical mixture.	
Selection of the glove material on conside. Material of gloves	pration of the penetration times, rates of diffusion and the degradation
	not only depend on the material, but also on further marks of quality an
varies from manufacturer to manufacturer	
Penetration time of glove material	
	found out by the manufacturer of the protective gloves and has to b
observed. Eye protection: Safety glasses	
	nemical properties
General Information	nemical properties
9.1 Information on basic physical and ch General Information Appearance: Form:	Powder
General Information Appearance: Form:	
General Information Appearance: Form: Colour: Odour:	Powder White Odourless
General Information Appearance: Form: Colour: Odour:	Powder White
General Information Appearance: Form: Colour: Odour: Odour threshold:	Powder White Odourless
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition	Powder White Odourless Not determined. 6
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point:	Powder White Odourless Not determined. 6 >2 °C
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range:	Powder White Odourless Not determined. 6 >2 °C 2.980 °C
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point:	Powder White Odourless Not determined. 6 >2 °C 2.980 °C Not applicable.
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas):	Powder White Odourless Not determined. 6 >2 °C 2.980 °C Not applicable. Product is not flammable.
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas): Ignition temperature:	Powder White Odourless Not determined. 6 >2 °C 2.980 °C Not applicable. Product is not flammable. >370 °C
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas): Ignition temperature: Decomposition temperature:	Powder White Odourless Not determined. 6 >2 °C 2.980 °C Not applicable. Product is not flammable. >370 °C Not determined.
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas): Ignition temperature: Decomposition temperature: Auto-ignition temperature:	Powder White Odourless Not determined. 6 >2 °C 2.980 °C Not applicable. Product is not flammable. >370 °C Not determined. Not determined.
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas): Ignition temperature: Decomposition temperature: Auto-ignition temperature:	Powder White Odourless Not determined. 6 >2 °C 2.980 °C Not applicable. Product is not flammable. >370 °C Not determined.
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas): Ignition temperature: Decomposition temperature: Auto-ignition temperature: Explosive properties: Explosion limits:	Powder White Odourless Not determined. 6 > 2 °C 2.980 °C Not applicable. Product is not flammable. > 370 °C Not determined. Not determined. Not determined.
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas): Ignition temperature: Decomposition temperature: Auto-ignition temperature: Explosive properties: Explosion limits: Lower:	Powder White Odourless Not determined. 6 > 2 °C 2.980 °C Not applicable. Product is not flammable. > 370 °C Not determined. Not determined. Product does not present an explosion hazard. Not determined.
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas): Ignition temperature: Decomposition temperature: Auto-ignition temperature: Explosive properties: Explosion limits: Lower: Upper:	Powder White Odourless Not determined. 6 >2 °C 2.980 °C Not applicable. Product is not flammable. >370 °C Not determined. Not determined. Product does not present an explosion hazard. Not determined. Not determined. Not determined.
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas): Ignition temperature: Decomposition temperature: Auto-ignition temperature: Explosive properties: Explosion limits: Lower: Upper: Vapour pressure:	Powder White Odourless Not determined. 6 >2 °C 2.980 °C Not applicable. Product is not flammable. >370 °C Not determined. Not determined. Product does not present an explosion hazard. Not determined. Not determined. Not determined. 10 hPa
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Flammability (solid, gas): Ignition temperature: Decomposition temperature: Auto-ignition temperature: Explosive properties: Explosion limits: Lower: Upper: Vapour pressure: Density at 20 °C:	Powder White Odourless Not determined. 6 >2 °C 2.980 °C Not applicable. Product is not flammable. >370 °C Not determined. Not determined. Product does not present an explosion hazard. Not determined. Not determined. Not determined.

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Safety data sheet according to 1907/2006/EC, Article 31

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· Vapour density	Not applicable.	
· Evaporation rate	Not applicable.	
· Solubility in / Miscibility with		
water:	Insoluble.	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
· Solvent content:		
Organic solvents:	0.0 %	
VOC (EC)	0.00 %	
Solids content:	100.0 %	
• 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

· 10.2 Chemical stability

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.

• 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

7631-86-9 silicon dioxide, chemically prepared

Oral LD50 10000 mg/kg (rat)

· Primary irritant effect:

- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- \cdot **Reproductive toxicity** Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

• Aquatic toxicity: No further relevant information available.

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- 12.2 Persistence and degradability No further relevant information available.
- \cdot 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- \cdot Additional ecological information:
- General notes: Not known to be hazardous to water.
- · 12.5 Results of PBT and vPvB assessment

· PBT: Not applicable.

- **vPvB:** Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation Disposal must be made according to official regulations.
- Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information	tion	
· 14.1 UN-Number · ADR, ADN, IMDG, IATA	not regulated	
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	not regulated	
· 14.3 Transport hazard class(es)		
· ADR, ADN, IMDG, IATA · Class	not regulated	
· 14.4 Packing group · ADR, IMDG, IATA	not regulated	
· 14.5 Environmental hazards: · Marine pollutant:	No	
· 14.6 Special precautions for user	Not applicable.	
· 14.7 Transport in bulk according to Ann Marpol and the IBC Code	nex II of Not applicable.	
· UN ''Model Regulation'':	not regulated	

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· Directive 2012/18/EU

- · Named dangerous substances ANNEX I Substance is not listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Technical Department.

· Contact: Technical Director

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative