SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: Si 266™

Chemical name:
4,4,13,13-Tetraethoxy-3,14-dioxa-8,9-dithia-4,13-disilahexadecane

Other means of identification
CAS Number: 56706-10-6

Recommended restrictions
Recommended use: Rubber - producing and processing industry
Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Company Name	:	Evonik Corporation 299 Jefferson Road Parsippany, NJ 07054 USA
Telephone	:	+1 973 929 8000
Fax	:	+1 973 929 8040
E-mail	:	product-regulatory-services@evonik.com

Emergency telephone number:

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

2. Hazard(s) identification

Hazard Classification

Not classified

Label Elements

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

Precautionary Statements

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

3. Composition/information on ingredients

Chemical name:
4,4,13,13-Tetraethoxy-3,14-dioxa-8,9-dithia-4,13-disilahexadecane

Substances

Chemical Identity	CAS number	Content in percent (%)*
4,4,13,13-Tetraethoxy-3,14-dioxa-8,9-dithia-4,13-disilahexadecane	56706-10-6	

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

A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

General information: Remove contaminated or saturated clothing.

Inhalation: If aerosol or mists are formed: Possible discomfort: cough, sneezing, flow of tears . Take affected persons out into the fresh air. If symptoms persist, call a physician.

Skin Contact: Gently wash with plenty of soap and water.

Eye contact: With eye held open, thoroughly rinse immediately with plenty of water for at least 5 minutes. In case of persistent discomfort: Consult an ophthalmologist.

Ingestion: Rinse mouth. Have patient drink plenty of water in small sips. After absorbing large amounts of substance: Consult a physician.

Personal Protection for First-aid Responders: As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

Most important symptoms/effects, acute and delayed

Symptoms: None known.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: If required, therapy of irritative effect. After absorbing large amounts of substance: administration of activated charcoal. Acceleration of gastrointestinal passage

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media:	High volume water jet
Specific hazards arising from the chemical:	May be released in case of fire: carbon monoxide, carbon dioxide, sulphur oxides.

Special protective equipment and precautions 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. Containers can build up pressure if exposed to heat (fire). Cool with water spray.
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.
Accidental release measures:	Defect containers must be isolated and sealed immediately.
Methods and material for containment and cleaning up:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Fill into marked, sealable containers. To be disposed of in compliance with existing regulations.
Environmental Precautions:	Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, rivers, groundwater or soil.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	see section 7.
Safe handling advice:	Handle in accordance with good industrial hygiene and safety practice. If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. Do not breathe in vapours or aerosols. Avoid contact with the skin and the eyes.Local ventilation. Always close container tightly after removal of product.
Contact avoidance measures:	No data available.
Hygiene measures:	When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. Remove contaminated or saturated clothing. Wash contaminated clothing before reuse. Preventive skin protection is recommended.

Storage

Safe storage conditions: Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking. Explosion protection is recommended in case the explosion limits for the following substance might be exceeded: Ethanol. Danger of explosion from residual product fumes; therefore avoid spark production through cutting, grinding, or welding work in the area of the container. 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. Keep away from humidity.Keep containers tightly closed in a cool, well-ventilated place. Protect from moisture. Protect against humid air and water. Incompatible with strong acids and bases.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls see section 7.

Individual protection measures, such as personal protective equipment

Eye/face protection: Use chemical splash goggles or face shield.

Skin Protection

Hand Protection: Material: Butyl rubber.
Break-through time: >= 480 min
Additional Information: Wear protective gloves made of resistant material.Material: Nitrile rubber.
Break-through time: >= 480 min
Material: Fluorinated rubber (Viton)
Break-through time: >= 480 min
Additional Information: The rupture time and material thickness data are guideline values! Exact rupture time / material thickness data can be obtained from the protective glove manufacturer., Suitability for specific workplaces should be clarified with protective glove manufacturers., The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use.

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.

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. Remove contaminated or saturated clothing. Wash contaminated clothing before reuse. Preventive skin protection is recommended.

9. Physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	light yellow
Odor:	sulphurous
Odor Threshold:	not determined
pH:	Not applicable
Freezing point:	approx. -117 °C (EC Method A.1)
Boiling Point:	269 °C (1,013 hPa) (EC Method A.2)
Flash Point:	> 100 °C (DIN EN ISO 2719 (Pensky-Martens, Closed Cup)) 188 °C (ISO 2592:2000; JIS K 2265-4:2007 (Japan))
Evaporation Rate:	not determined
Flammability (solid, gas):	No data available.
Explosive limit - upper (%):	not to be determined
Explosive limit - lower (%):	1 %(V)
Vapor pressure:	0.1 hPa (20 °C) (EC Method A.4)
Vapor density (air=1):	No data available.
Density:	approx. 1.03 g/cm3 (20 °C) (EC Method A.3)
Relative density:	No data available.
Solubility(ies)	
Solubility in Water:	<= 1 mg/l (20 °C, OECD Test Guideline 105)
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable
Self Ignition Temperature:	No data available.
Decomposition Temperature:	> 150 °C
Kinematic viscosity:	7.73 mm2/s (20 °C)
Dynamic viscosity:	8 mPa.s (20 °C)
Other information	
Explosive properties:	not explosive
Oxidizing properties:	No data available.
Minimum ignition temperature:	230 °C (DIN 51 794)

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:	Reaction with water, acids and alcaline solutions. Formation of ethanol.
Conditions to avoid:	Keep away from heat and sources of ignition.
Incompatible Materials:	Reaction with water and alkaline solutions: Reacts with: acids Formation of ethanol.
Hazardous Decomposition Products:	Ethanol in case of hydrolysis Alcohol formed by hydrolysis lowers the flash point of the product.

11. Toxicological information

Information on likely routes of exposure

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

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.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: LD 50 (Rat): > 2,150 mg/kg (limit test)

Dermal
Product: LD 50 (Rat): > 2,000 mg/kg

Inhalation
Product: LC 50 (Rat): > 7.967 mg/l tested substance:, Aerosols, Structurally similar substance

Repeated dose toxicity
Product: NOAEL (Rat, Oral): 200 mg/kg

Skin Corrosion/Irritation
Product: Not irritating OECD Test Guideline 404 (Rabbit): Not irritating

Serious Eye Damage/Eye Irritation
Product: Not irritating Rabbit: Not irritating

Respiratory or Skin Sensitization
Product: Maximization test, OECD Test Guideline 406 (Guinea Pig): Not a skin sensitizer. tested substance: Structurally similar substance

Carcinogenicity
Product: No evidence that cancer may be caused.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

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

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Germ Cell Mutagenicity

In vitro
Product: Ames test (OECD 471): negative
Cytogenetic test (OECD 473): negative

In vivo
Product: Micronucleus test (OECD 474) intraperitoneal (i.p.) ((mouse)): negative

Reproductive toxicity
Product: No data available.

Components:
4,4,13,13-Tetraethoxy-3,14-dioxa-8,9-dithia-4,13-disilahexadecane: Not classified

Specific Target Organ Toxicity - Single Exposure
Product: Not classified

Specific Target Organ Toxicity - Repeated Exposure
Product: Not classified

Aspiration Hazard
Product: No evidence of aspiration toxicity

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: ((Brachydanio rerio)): No toxic effect in the event of maximal solubility in water

Aquatic Invertebrates
Product: No data available.

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.

Persistence and Degradability

Biodegradation
Product: 20 % (28 d, OECD 301 F)

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: (OECD TG 305 C) low

Partition Coefficient n-octanol / water (log Kow)
Product: Log Kow: Not applicable

Mobility in soil: Adsorption on the floor: low.

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

13. Disposal considerations

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

Contaminated Packaging: Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations. Incorrect disposal or reuse of this container is illegal and can be dangerous. Other countries: observe the national regulations.

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.

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

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Not classified

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

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

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

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

None present or none present in regulated quantities.

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

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

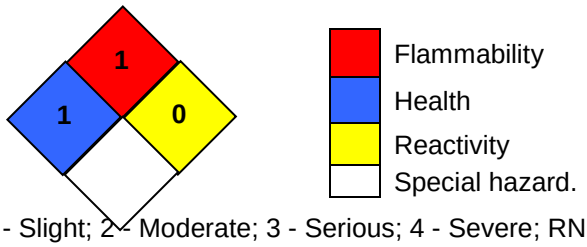
No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

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

Issue Date:	07/06/2019
Version #:	1.1
Further 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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