SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: SURFYNOL DF-58

Chemical name:
Siloxane

Other means of identification

Recommended restrictions

Recommended use: Industrial Use
Restrictions on use: None 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 8042
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

Health Hazards

Serious Eye Damage/Eye Irritation	Category 2B
Toxic to reproduction	Category 2

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

Label Elements

Hazard Symbol:

Signal Word: Warning

Hazard Statement: Causes eye irritation.
Suspected of damaging fertility or the unborn child.
Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF exposed or concerned: Get medical advice/attention.

Storage: Store in a well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

3. Composition/information on ingredients

Chemical name:
Siloxane

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	115341-02-1	20 - <50%
Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl] ester	6846-50-0	25 - <50%
White mineral oil, petroleum	8042-47-5	10 - <20%
Silicon dioxide, chemically prepared	7631-86-9	1 - <5%

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

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

Inhalation: If breathing is irregular or stopped, administer artificial respiration.

Skin Contact: Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay.

Eye contact: Remove contact lenses.

Ingestion: Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position.

Personal Protection for First-aid Responders: No data available.

Most important symptoms/effects, acute and delayed

Symptoms: Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Alcohol resistant foam.

Unsuitable extinguishing media: No data available.

Specific hazards arising from the chemical: This material will flash but does not sustain combustion. Incomplete combustion may form carbon monoxide. May generate sulfur dioxide. No special precautions. Incomplete combustion may form carbon monoxide. Fire or intense heat may cause violent rupture of packages. May form explosive mixtures in air. Burning produces noxious and toxic fumes. In the event of fire, cool tanks with water spray. May generate sulfur dioxide.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: No data available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Remove sources of ignition.

Methods and material for containment and cleaning up: Approach suspected leak areas with caution. Call Emergency Response number for advice. Absorb with inert absorbent materials such as: Dry sand. Vermiculite. Activated charcoal.

Environmental Precautions: Shut off or remove all ignition sources.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): Apply process controls to ensure safe operating conditions. Assess potential flammability hazards based on flashpoint and potential ignition sources. Ensure adequate ventilation.

Safe handling advice: Wash hands at the end of each workshift and before eating, smoking or using the toilet.See "Flammable and Combustible Liquid Code" NFPA No. 30, National Fire Protection Association, Boston, MA.Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid breathing vapors and/or aerosols. Avoid contact with eyes. Use only in well-ventilated areas.

Contact avoidance measures: No data available.

Hygiene measures: No data available.

Storage

Safe storage conditions: Protect from frost.Keep away from open flames, hot surfaces and sources of ignition.Keep containers tightly closed in a dry, cool and well-ventilated place. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat and sources of ignition. Keep in a dry, cool place. Keep away from oxidizers.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
White mineral oil, petroleum - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (03 2016)
White mineral oil, petroleum - Mist.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	STEL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
Silicon dioxide, chemically prepared	REL	6 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	20 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	0.8 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)

Appropriate Engineering Controls Apply process controls to ensure safe operating conditions. Assess potential flammability hazards based on flashpoint and potential ignition sources. Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection: Chemical safety glasses.

Skin Protection

Hand Protection:	Additional Information: Neoprene gloves, Nitrile rubber.
Skin and Body Protection:	Long sleeve shirts and trousers without cuffs.
Respiratory Protection:	Wear appropriate respirator when ventilation is inadequate.
Hygiene measures:	No data available.

9. Physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Slight
Odor Threshold:	No data available.
pH:	Not applicable
Freezing point:	Not applicable
Boiling Point:	not measured
Flash Point:	45 °C (ISO 2719) This material will flash but does not sustain combustion.
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	not measured
Vapor density (air=1):	No data available.
Density:	0.99 g/cm3 (21 °C)
Relative density:	approx. 0.985 (20 °C) (DIN 51757)
Solubility(ies)	
Solubility in Water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Self Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Kinematic viscosity:	No data available.
Dynamic viscosity:	10 - 300 mPa.s (25 °C)
Other information	
Explosive properties:	No data available.
Oxidizing properties:	No data available.
Minimum ignition temperature:	360 °C
Metal Corrosion:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	No data available.
Possibility of hazardous reactions:	No data available.

Conditions to avoid:	Heat, flames and sparks.
Incompatible Materials:	Oxidizing agents.
Hazardous Decomposition Products:	Carbon Monoxide. Carbon Dioxide. Silicon Dioxide. At temperatures of approximately 150C (302F) a small amount of formaldehyde can be released by oxidative degradation.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	If handled correctly, not a relevant route of exposure. Information on effects are given below.
Skin Contact:	Relevant route of exposure. Information on effects are given below.
Eye contact:	Relevant route of exposure. Information on effects are given below.
Ingestion:	If handled correctly, not a relevant route of exposure. 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.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: LD 50 (Rat): > 4,925 mg/kg

Dermal
Product: LD 50 (Rat): > 2,069 mg/kg

Inhalation
Product: No data available.
Not classified for acute toxicity based on available data.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: Not irritating
(Rabbit): Not irritating

Serious Eye Damage/Eye Irritation
Product: Mildly Irritating
Rabbit: Mildly Irritating Labelling not required according to EU-CLP Ordinance (1272/2008).

Respiratory or Skin Sensitization
Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogens present or none present in regulated quantities

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

No carcinogens present or none present in regulated quantities

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

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data is available on the product itself.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Components:

Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	Not classified
White mineral oil, petroleum	Not classified
Silicon dioxide, chemically prepared	Not classified

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Components:

Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	Not classified
White mineral oil, petroleum	Not classified
Silicon dioxide, chemically prepared	Not classified

Aspiration Hazard

Product: No data available.

Components:

Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	Not classified
White mineral oil, petroleum	Not classified
Silicon dioxide, chemically prepared	Not classified

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: LC 50 (Zebrafish (Danio rerio)., 96 h): 100 mg/l

Aquatic Invertebrates
Product: No data is available on the product itself.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data is available on the product itself.

Persistence and Degradability

Biodegradation
Product: 72 % (15 d)

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

Components:

Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl] ester	Bluegill Sunfish, Bioconcentration Factor (BCF): 1.95 (OECD 305)

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Components:

Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl] ester	Log Kow: 4.49 25 °C

Mobility in soil: No data available.

Components:

Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl] ester	No data available.
White mineral oil, petroleum	No data available.
Silicon dioxide, chemically prepared	No data available.

Other adverse effects: The product is classified as slightly hazardous to waters (according to the German Regulation on the Classification of Substances Hazardous to Waters (WwSV).

13. Disposal considerations

Disposal methods: No data available.

Contaminated Packaging: No data available.

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

Remarks : Not Dangerous Good of Class 3 - IATA-DGR 3.3.1.3 / ICAO 3.1.3 - Substance do not sustain combustion!Not Dangerous Good of Class 3 - IATA-DGR 3.3.1.3 / ICAO 3.1.3 - Substance do not sustain combustion!

IMDG-Code

Not regulated as a dangerous good

Remarks : Not Dangerous Good of Class 3 - IMDG-Code 2.3.1.3 - Substance do not sustain combustion!Not Dangerous Good of Class 3 - IMDG-Code 2.3.1.3 - Substance do not sustain combustion!

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

Flammable (gases, aerosols, liquids, or solids), Serious eye damage or eye irritation, Reproductive toxicity

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
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	10000 lbs
Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl] ester	10000 lbs
White mineral oil, petroleum	10000 lbs
Silicon dioxide, chemically prepared	10000 lbs

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

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. - www.P65Warnings.ca.gov

No ingredient requiring a warning under CA Prop 65.

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

Chemical Identity
White mineral oil, petroleum
Silicon dioxide, chemically prepared

US. Massachusetts RTK - Substance List

Chemical Identity
White mineral oil, petroleum

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
White mineral oil, petroleum

US. Rhode Island RTK

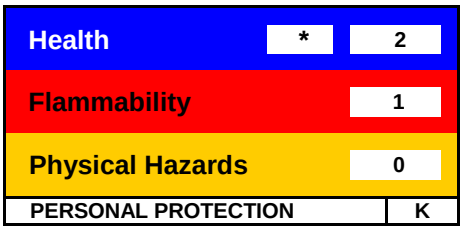
Chemical Identity
White mineral oil, petroleum

Inventory Status:

US TSCA Inventory:	Included on Inventory.
Canada DSL Inventory List:	Included on Inventory.

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

HMIS Hazard ID



K - Hood, Gloves, Protective Suit & Boots

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

Issue Date: 05/20/2019

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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