SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: SURFYNOL® DF-58
Chemical name:
Siloxane

Other means of identification
None.

Recommended restrictions

Recommended use: Industrial use
Restrictions on use: None known.

Manufacturer/Importer/Distributor Information

Company Name	:	Evonik Corporation Nutrition & Care 7801 Whitepine Road Richmond, VA 23237 USA
Telephone	:	+1 804 727 0700
Fax	:	+1 804 727 0845
E-mail	:	product-regulatory-services@evonik.com

Emergency telephone number:

24-Hour Health Emergency	:	+1 800 424 9300 (CHEMTREC - US & CANADA) 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 2A
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 serious eye irritation.
Suspected of damaging fertility or the unborn child.
Harmful to aquatic life with long lasting effects.

Precautionary Statements

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

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 exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

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

3. Composition/information on ingredients

Chemical name:
Siloxane

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol		115341-02-1	30 - 60%
Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl] ester		6846-50-0	10 - 30%
White mineral oil (petroleum)		8042-47-5	10 - 30%
octamethylcyclotetrasiloxane		556-67-2	0 - 0.1%

* 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 first aid measures

General information:	Immediately remove contaminated clothing.
Inhalation:	fresh air supply, consult a doctor if feeling unwell.
Skin Contact:	In case of contact with skin wash off with soap and water. If skin irritation persists, call a physician.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water. If symptoms persist, seek medical advice.
Ingestion:	Give copious water in small draughts. Do not induce vomiting.
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both 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:	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
Unsuitable extinguishing media:	High volume water jet.
Special hazards arising from the substance or mixture:	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.

Accidental release measures: No data available.

Methods and material for containment and cleaning up: Use mechanical handling equipment. Use a liquid-binding material to take up small amounts diatomaceous earth

Environmental Precautions: Do not allow to enter drains or waterways Prevent product from getting into subsoil/soil.

7. Handling and storage

Handling

Technical measures: No data available.

Local/Total ventilation: No data available.

Safe handling advice: Avoid breathing vapors and/or aerosols. Avoid contact with eyes. Use only in well-ventilated areas.See "Flammable and Combustible Liquid Code" NFPA No. 30, National Fire Protection Association, Boston, MA.

Contact avoidance 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	ACGIH (03 2016)
White mineral oil (petroleum) - Mist.	REL		5 mg/m3	NIOSH (2010)
	STEL		10 mg/m3	NIOSH (2010)
	PEL		5 mg/m3	OSHA Z1 (03 2016)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values
No biological exposure limits noted for the ingredient(s).

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: Wear tight-fitting goggles or face shield.

Skin Protection

Hand Protection: Material: Butyl rubber.
Break-through time: 60 - 120 min
Additional Information: The suitability for a specific workplace should be discussed with the producers of the protective gloves., The selected protective gloves have to satisfy the specifications of EC Regulation 2016/425 and the standard EN 374 derived from it.

Skin and Body Protection: protective clothing

Respiratory Protection: in case of formation of vapours/aerosols: Respiratory protection mask with combination filter A-P2

Hygiene measures: Wash hands before breaks and immediately after handling the product. Do not eat, drink, smoke, or sniff while at work. Wash your hands and/or face before breaks and before termination of work. Remove soiled or soaked clothing immediately.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Slight
Odor Threshold:	not measured
Freezing point:	Not applicable
Boiling Point:	not measured
Flammability:	not measured

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	not measured
Explosive limit - lower:	not measured

Flash Point:	118 °F/48 °C This material will flash but does not sustain combustion.
Auto-ignition temperature:	680 °F/360 °C
Decomposition Temperature:	> 428 °F/> 220 °C
pH:	Not applicable
Viscosity	
Dynamic viscosity:	10 - 300 mPa.s at 77 °F/25 °C
Kinematic viscosity:	No data available.
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	Insoluble
Solubility (other):	Insoluble
Partition coefficient (n-octanol/water):	Not applicable
Vapor pressure:	not measured
Relative density:	Approximate 0.985 at 68 °F/20 °C Method: DIN 51757
Density:	Approximate 0.985 g/cm3 at 68 °F/20 °C
Bulk density:	No data available.
Relative vapor density:	No data available.

Other information

Explosive properties:	not measured
Oxidizing properties:	not measured
Self-ignition:	not measured
Metal Corrosion:	No data available.
Evaporation Rate:	not measured

10. Stability and reactivity

Reactivity:	see section "Possibility of hazardous reactions".
Chemical Stability:	The product is stable under normal conditions.
Possibility of hazardous reactions:	No hazardous reactions with proper storage and handling
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.

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: Not classified for acute toxicity based on available data.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: Not irritant, The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy)., (Rabbit), Not irritating

Serious Eye Damage/Eye Irritation
Product: Based on available data, the classification criteria are not met.

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

ACGIH: US.ACGIH Threshold Limit Values:
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 1910.1001-1053), as amended:
No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity
No data is available on the product itself.

In vitro
Product: No data available.
Components:

octamethylcyclotetrasiloxane	Ames test, OECD 471: , negative Chromosomal aberration, OECD 473: , negative gene mutation test, OECD 476: , negative

In vivo

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	Micronucleus test, OECD 474, Inhalation - vapor, Rat, negative Chromosomal aberration, OECD 478, Oral, Rat, negative Chromosomal aberration, OECD 475, Inhalation - vapor, Rat, Female, Male, negative

Reproductive toxicity

Product:	No data is available on the product itself.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.

Aspiration Hazard

Product:	Not classified

Information on health hazards

Other hazards

Product:	The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".;

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	LC 50, Zebra danio (Danio rerio), 96 h, 100 mg/l

Aquatic Invertebrates

Product:	No data is available on the product itself.

Toxicity to Aquatic Plants

Product:	

Toxicity to microorganisms

Product:	No data available.

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.

Aquatic Invertebrates

Product:	No data available.

Toxicity to microorganisms
Product: No data available.

Persistence and Degradability

Biodegradation

Product: 72 %, 15 d, The product is easily biodegradable.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)
Product: Will not bio-accumulate.

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

Mobility in soil:

Product: No data available.

Results of PBT and vPvB assessment:

Product: No data available.

Other adverse effects:

Other hazards
Product: The product is classified as slightly hazardous to waters (according to the German Regulation on the Classification of Substances Hazardous to Waters (WwSV). Do not allow to enter soil, waterways or waste water canal.

13. Disposal considerations

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

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

14. Transport information

Domestic regulation

49 CFR
Not regulated as a dangerous good

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!

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!

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 (on the basis of current knowledge of the product composition).

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 (on the basis of current knowledge of the product composition).

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

CERCLA Hazardous Substance List (40 CFR 302.4):
None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Serious eye damage or eye irritation, Reproductive toxicity

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

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US State Regulations

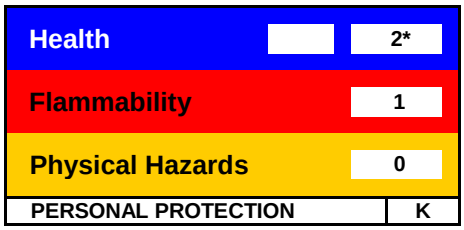
US. California Proposition 65
No ingredient requiring a warning under CA Prop 65.

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

Version #: 1.3

Generation date: 04/12/2024

Date of first report version: 03/13/2019

Abbreviations and acronyms:

ACGIH:	US. ACGIH Threshold Limit Values, as amended
NIOSH/GUIDE:	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
OSHA_TRANS:	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
ACGIH / TWA:	Time Weighted Average (TWA):
NIOSH/GUIDE / REL:	Recommended exposure limit (REL):
NIOSH/GUIDE / STEL:	Short Term Exposure Limit (STEL):
OSHA_TRANS / PEL:	Permissible exposure limit:

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading

Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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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