

Product name: SURFYNOL® DF-62

SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name:
SURFYNOL® DF-62

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Industrial use

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet

Company Name : Evonik Operations GmbH
Rellinghauser Str. 1-11
45128 Essen
Germany

Telephone : +49 201 173 01
Fax : +49 201 173 3000
E-mail : productsafety-cs@evonik.com

1.4 Emergency telephone number:

24-Hour Health : +49 2365 49 2232
Emergency : +49 2365 49 4423 (Fax)

National Poison Information Service (NPIS)
England, Scotland and Wales: NHS: 111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

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Health Hazards

Serious eye irritation Category 2 H319: Causes serious eye irritation.

2.2 Label Elements

Product name: SURFYNOL® DF-62

Signal Words: Warning

Hazard Statement(s): H319: Causes serious eye irritation.

Precautionary Statements
Prevention:

P264: Wash face, hands and any exposed skin thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

Supplemental label information

EUH066: Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients
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3.2 Mixtures

Chemical name	Concentration	CAS-No.	EC No.	UK-REACH Registration No.	REACH Registration No.	M-Factor:	Notes
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	20 - <50%		920-107-4		01-2119453414-43	No data available.	
Silsesquioxanes, methyl, ethoxy terminated, reaction products	10 - <20%	115341-02-1			-	No data available.	

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with polypropylene glycol							
Silane, dichlorodimethyl-, reaction products with silica	1 - <5%	68611-44-9		UK-01-250993046 1-7	01-211937949 9-16	No data available.	#
octamethylcyclotetrasiloxane	0.01 - <0.1%	556-67-2	209-136-7		01-211952923 8-36	Aquatic Toxicity (Chronic): 10	##

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

This substance has workplace exposure limit(s).

This substance is listed as SVHC.

Classification

Chemical name	Classification	Notes
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Classification: Asp. Tox.: 1: H304; Supplemental label information: EUH066;	None.
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	Classification: Eye Irrit.: 2: H319; Supplemental label information: None known.	None.
Silane, dichlorodimethyl-, reaction products with silica	Classification: None known. Supplemental label information: None known.	Not applicable
octamethylcyclotetrasiloxane	Classification: Flam. Liq.: 3: H226; Repr.: 2: H361f; Aquatic Chronic: 1: H410; Supplemental label information: None known.	None.

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures
4.1 Description of first aid measures

Inhalation:	If breathing is irregular or stopped, administer artificial respiration.
Skin Contact:	Wash off immediately with plenty of water for at least 15 minutes. Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. 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. Do NOT induce vomiting.

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

4.2 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.

4.3 Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Alcohol resistant foam.

Unsuitable extinguishing media: No data available.

5.2 Special hazards arising from the substance or mixture:

Incomplete combustion may form carbon monoxide. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated. May generate sulfur dioxide.

5.3 Advice for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Avoid contact with skin.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing.

6.1.1 For non-emergency personnel:

Open enclosed spaces to outside atmosphere.

6.1.2 For emergency responders:

No data available.

6.2 Environmental Precautions:

No data available.

6.3 Methods and material for containment and cleaning up:

Call Emergency Response number for advice. Approach suspected leak areas with caution.

6.4 Reference to other sections:

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures: No data available.

Local/Total ventilation: No data available.

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Safe handling advice: Wash hands at the end of each workshift and before eating, smoking or using the toilet. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use only in well-ventilated areas. Avoid contact with eyes. Avoid breathing vapors and/or aerosols.

Contact avoidance measures: No data available.

7.2 Conditions for safe storage, including any incompatibilities

Safe storage conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.

Safe packaging materials: No data available.

7.3 Specific end use(s): No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	Type	Form of exposure	Exposure Limit Values		Source
Silane, dichlorodimethyl-, reaction products with silica	TWA	Respirable dust.		2.4 mg/m ³	EH40 WEL (12 2011)
	TWA	Inhalable dust.		6 mg/m ³	EH40 WEL (12 2011)

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.

Chemical name	Type	Form of exposure	Exposure Limit Values		Source
Silane, dichlorodimethyl-, reaction products with silica	TWA	Respirable dust.		2.4 mg/m ³	EH40 WEL (12 2011)
	TWA	Inhalable dust.		6 mg/m ³	EH40 WEL (12 2011)

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).

DNEL-Values

Remarks: DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
Dodecamethylcyclohexasiloxane	Workers	Inhalation	Local, long-term; 1.22 mg/m ³	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
	General population	Inhalation	Local, short-term; 1.5 mg/m ³	Repeated dose toxicity
	General population	Inhalation	Local, long-term; 0.3 mg/m ³	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 2.7 mg/m ³	Repeated dose toxicity

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	General population	Oral	Systemic, short-term; 1.7 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 11 mg/m ³	Repeated dose toxicity
	Workers	Inhalation	Local, short-term; 6.1 mg/m ³	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 1.7 mg/kg	Repeated dose toxicity
Decamethylcyclopentasiloxane	Workers	Inhalation	Local, long-term; 24.2 mg/m ³	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 17.3 mg/m ³	Repeated dose toxicity
	Workers	Eyes	Local effect;	No hazard identified
	Workers	Inhalation	Systemic, long-term; 97.3 mg/m ³	Repeated dose toxicity
	General population	Inhalation	Local, long-term; 4.3 mg/m ³	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	General population	Oral	Systemic, long-term; 5 mg/kg	Repeated dose toxicity
octamethylcyclotetrasiloxane	General population	Inhalation	Systemic, long-term; 13 mg/m ³	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 73 mg/m ³	Repeated dose toxicity
	Workers	Inhalation	Local, long-term; 73 mg/m ³	Repeated dose toxicity
	General population	Inhalation	Local, long-term; 13 mg/m ³	Repeated dose toxicity
	Workers	Eyes	Local effect;	No hazard identified
	General population	Eyes	Local effect;	No hazard identified
	General population	Oral	Systemic, long-term; 3.7 mg/kg	Repeated dose toxicity

PNEC-Values

Remarks: PNEC-Values

Critical component	Environmental compartment	PNEC-Values	Remarks
Dodecamethylcyclohexasiloxane	Predator	66.7 mg/kg	Oral
	Sediment (marine water)	1.3 mg/kg	
	Sewage treatment plant	1 mg/l	
	Soil	3.77 mg/kg	
	Sediment (freshwater)	13 mg/kg	
Decamethylcyclopentasiloxane	Predator	16 mg/kg	Oral
	Sewage treatment plant	10 mg/l	
	Soil	2.54 mg/kg	
	Aquatic (marine water)	0.12 µg/l	
	Sediment (marine water)	1.1 mg/kg	
	Aquatic (freshwater)	1.2 µg/l	
	Sediment (freshwater)	11 mg/kg	
octamethylcyclotetrasiloxane	Predator	41 mg/kg	Oral
	Soil	0.54 mg/kg	
	Sediment (freshwater)	3 mg/kg	
	Aquatic (freshwater)	1.5 µg/l	
	Aquatic (marine water)	0.15 µg/l	
	Sewage treatment plant	10 mg/l	
	Sediment (marine water)	0.3 mg/kg	

8.2 Exposure controls
Appropriate Engineering Controls: No data available.

Individual protection measures, such as personal protective equipment
Eye/face protection: Safety goggles

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Hand Protection:	Material: nitrile rubber (Camatril Velours) Additional Information: The protective gloves to be worn must satisfy the specifications of Regulation (EU) 2016/425 and the resulting Standard EN374., Specific workplace situations must be considered separately. Material: Fluorinated rubber
Skin and Body Protection:	protective clothing
Respiratory Protection:	in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2
Hygiene measures:	Remove soiled or soaked clothing immediately. Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke.
Environmental Controls:	The environmental regulations on the control and monitoring of environmental exposures are to be observed.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Slight
Odor Threshold:	not measured
Freezing point:	not determined
Boiling Point:	Not determined.
Flammability:	not measured
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	Approximate 108 °C Method: ISO 2719 (Pensky-Martens (A and B Closed Cup))
Auto-ignition temperature:	315 °C
Decomposition Temperature:	not measured
pH:	Approximate 6

Viscosity

Dynamic viscosity:	Approximate 49 mPa.s at 40 °C 100 mPa.s at 25 °C
Kinematic viscosity:	50 - 200 mm ² /s at 25 °C , Method: DIN 51562

Solubility(ies)

Solubility in Water:	Practically Insoluble
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Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	0.4 hPa at 38 °C
Relative density:	Approximate 0.940 at 25 °C
Density:	Approximate 0.940 g/cm ³ at 25 °C Method: DIN 12791
Relative vapor density:	not measured

9.2 Other information

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

SECTION 10: Stability and reactivity

10.1 Reactivity:	see section "Possibility of hazardous reactions".
10.2 Chemical Stability:	No decomposition if stored and applied as directed.
10.3 Possibility of hazardous reactions:	No hazardous reactions are known if properly handled and stored.
10.4 Conditions to avoid:	None known.
10.5 Incompatible Materials:	None known.
10.6 Hazardous Decomposition Products:	No dangerous reactions have been known to occur in conjunction with the proper use to the product. At temperatures of approximately 150C (302F) a small amount of formaldehyde can be released by oxidative degradation.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****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.

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Acute toxicity (list all possible routes of exposure)
Oral

Product: ATEmix, > 2,000 mg/kg
 Not classified for acute toxicity based on available data.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds LD 50, Rat, Female, Male, > 15,000 mg/kg, OECD 401, (analogy)
 Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol Not toxic after single exposure, No data available.
 Silane, dichlorodimethyl-, reaction products with silica LD 50, Rat, Female, Male, > 5,000 mg/kg, OECD 401, (analogy)
 octamethylcyclotetrasiloxane LD 50, Rat, Male, > 5,000 mg/kg, OECD 401

Dermal

Product: Not classified for acute toxicity based on available data.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds LD 50, Rabbit, Female, Male, > 3,160 mg/kg, OECD 402, (analogy)
 Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol Not toxic after single exposure, No data available.
 Silane, dichlorodimethyl-, reaction products with silica LD 50, Rabbit, > 5,000 mg/kg, (analogy)
 octamethylcyclotetrasiloxane LD 50, Rat, Female, Male, > 5,000 mg/kg, OECD 402

Inhalation

Product: Not classified for acute toxicity based on available data.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds Not toxic after single exposure, No classification, Vapour
 Not toxic after single exposure, No data available., Dust and mist
 Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol Not toxic after single exposure, Vapour, No data available.
 Not toxic after single exposure, Dust and mist, No data available.
 Silane, dichlorodimethyl-, reaction products with silica LC 50, Rat, Female, Male, 4 h, > 5.01 mg/l, Dust and mist, OECD 436, (analogy)
 Vapour, Not toxic after single exposure, Not applicable
 octamethylcyclotetrasiloxane LC 50, Rat, Female, Male, 4 h, 36 mg/l, OECD 403, Vapour
 Not toxic after single exposure, Dust and mist, No data available.

Repeated dose toxicity

Product: No data available.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% No data available.

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aromatic compounds	
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	NOAEL Rat, Male, Oral, 28 day, 7 days a week, $\geq 1,000$ mg/kg, No negative effects. (analogy)
octamethylcyclotetrasiloxane	NOAEC, Rat, Female, Male, Inhalation, Vapour, 5 days/weeks, 6 hours/day, 1.8 mg/l, Subchronic toxicity LOAEC, Rat, Female, Male, Inhalation, Vapour, 5 days/weeks, 6 hours/day, 8.5 mg/l, chronic NOAEC, Rat, Female, Male, Inhalation, Vapour, 5 days/weeks, 6 hours/day, 0.36 mg/l, Subacute toxicity

Skin Corrosion/Irritation

Product:	No data available.
Components:	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Not irritating, OECD 404, Rabbit, (analogy)
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	Not irritating, OECD 404, Rabbit, (analogy)
octamethylcyclotetrasiloxane	Not irritating, OECD 404, Rabbit

Serious Eye Damage/Eye Irritation

Product:	No data available.
Components:	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Not irritating, OECD 405, Rabbit, (analogy)
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	Irritating.
Silane, dichlorodimethyl-, reaction products with silica	Not irritating, analogous OECD method, Rabbit, (analogy)
octamethylcyclotetrasiloxane	Not irritating, OECD 405, Rabbit

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer., (analogy) Not a respiratory sensitizer
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.

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Silane, dichlorodimethyl-, reaction products with silica	Local Lymph Node Assay (LLNA), OECD 429, Mouse, Not a skin sensitizer., (analogy) Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer., (analogy)
octamethylcyclotetrasiloxane	Magnussona i Kligmana., OECD 406, Rabbit, Not a skin sensitizer. Sensitization test, Human, Not a skin sensitizer. Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer.

Carcinogenicity

Product:	No data available.
Components:	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Not classified
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	No evidence that cancer may be caused.
octamethylcyclotetrasiloxane	No data available.

Germ Cell Mutagenicity

No data is available on the product itself.

In vitro

Product:	No data available.
Components:	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Bacterial reverse mutation assay, OECD 471: , negative, (analogy) Chromosomal aberration, OECD 473: , negative, (analogy)
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	gene mutation test, OECD 471: , negative, (analogy) gene mutation test, OECD 490: , negative, (analogy) Chromosomal aberration, OECD 473: , negative, (analogy)
octamethylcyclotetrasiloxane	Ames test, OECD 471: , negative Chromosomal aberration, OECD 473: , negative gene mutation test, OECD 476: , negative

In vivo

Product:	No data available.
Components:	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Micronucleus test, OECD 474, Oral, Mouse, Female, Male, negative, (analogy)
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.

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Silane, dichlorodimethyl-, reaction products with silica	Chromosomal aberration, OECD 475, Oral, Rat, Male, negative, (analogy)
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.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Not classified
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	no evidence of reproductiontoxic properties
octamethylcyclotetrasiloxane	Suspected of damaging fertility or the unborn child. Suspected of damaging fertility.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Not classified
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	no evidence for hazardous properties
octamethylcyclotetrasiloxane	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	Not classified
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	no evidence for hazardous properties

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octamethylcyclotetrasiloxane No data available.

Aspiration Hazard

Product: Not classified

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds May be fatal if swallowed and enters airways.

Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol Not classified

Silane, dichlorodimethyl-, reaction products with silica Not applicable

octamethylcyclotetrasiloxane Not classified

11.2 Information on other hazards
Other information

Product: No data available.

SECTION 12: Ecological information

12.1 Toxicity:
Acute hazards to the aquatic environment:
Fish

Product: No data is available on the product itself.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds LL 50, Oncorhynchus mykiss, 96 h, > 1,000 mg/l OECD 203, (analogy) WAF

Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol No data available.

Silane, dichlorodimethyl-, reaction products with silica LC 50, (Brachydanio rerio), 96 h, > 10,000 mg/l OECD 203, The reported toxic effects relate to the nominal concentration. (analogy)

octamethylcyclotetrasiloxane LC 50, Oncorhynchus mykiss, 96 h, > 22 µg/l US-EPA-method NOEC, Oncorhynchus mykiss, 96 h, 22 µg/l US-EPA-method

Aquatic Invertebrates

Product: No data is available on the product itself.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds EL50, Daphnia magna, 48 h, > 100 mg/l OECD 202, (analogy) WAF

Silsesquioxanes, methyl, ethoxy terminated, reaction products with No data available.

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polypropylene glycol Silane, dichlorodimethyl-, reaction products with silica	EC 50, Daphnia magna, 24 h, > 1,000 mg/l OECD 202, The reported toxic effects relate to the nominal concentration. (analogy)
octamethylcyclotetrasiloxane	NOEC, Daphnia magna, 48 h, 15 µg/l US-EPA-method EC 50, Daphnia magna, 48 h, > 15 µg/l US-EPA-method

Toxicity to Aquatic Plants

Product: No data available.

Components:

Hydrocarbons, C12-C15, No data available.

n-alkanes, isoalkanes,
cyclic compounds, <2%
aromatic compounds

Silsesquioxanes, methyl, No data available.

ethoxy terminated,
reaction products with
polypropylene glycol

Silane, dichlorodimethyl-, EC 50 (Desmodesmus subspicatus (green algae), 72 h): > 173 mg/l
reaction products with (OECD 201) (analogy)
silica

octamethylcyclotetrasiloxane EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 22 µg/l (US-EPA-method)

EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 22 µg/l (US-EPA-method)

Toxicity to microorganisms

Product: No data is available on the product itself.

Components:

Hydrocarbons, C12-C15, EL50, Tetrahymena pyriformis, 48 h, > 1,000 mg/l, QSAR

n-alkanes, isoalkanes,
cyclic compounds, <2%
aromatic compounds

Silsesquioxanes, methyl, No data available.

ethoxy terminated,
reaction products with
polypropylene glycol

Silane, dichlorodimethyl-, EC 50, local activated sludge, 3 h, > 2,500 mg/l, OECD 209, (analogy)

reaction products with
silica

octamethylcyclotetrasiloxane No data available.

ane

Chronic hazards to the aquatic environment:
Fish

Product: No data is available on the product itself.

Components:

Hydrocarbons, C12-C15, NOEC, Pimephales promelas, 32 d, > 100 mg/l, OECD 210, (analogy)
WAF

n-alkanes, isoalkanes,
cyclic compounds, <2%
aromatic compounds

Silsesquioxanes, methyl, No data available.

ethoxy terminated,
reaction products with
polypropylene glycol

Silane, dichlorodimethyl-, No data available.

, reaction products with

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silica
 octamethylcyclotetrasiloxane NOEC, Oncorhynchus mykiss, 93 d, 4.4 µg/l, US-EPA-method

Aquatic Invertebrates

Product: No data is available on the product itself.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds NOELR, Daphnia magna, 21 d, > 1,000 mg/l, QSAR

Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol No data available.

Silane, dichlorodimethyl-, reaction products with silica No data available.

octamethylcyclotetrasiloxane NOEC, Daphnia magna, 21 d, 15 µg/l, EPA OTS 797.1330

Lowest Observed Effect Concentration, Daphnia magna, 21 d, 15 µg/l, EPA OTS 797.1330
 EC 50, Daphnia magna, 21 d, > 15 µg/l, EPA OTS 797.1330

Toxicity to Aquatic Plants

Product: No data available.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds No data available.

Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol No data available.

Silane, dichlorodimethyl-, reaction products with silica No data available.

octamethylcyclotetrasiloxane NOEC (Algae (Pseudokirchneriella subcapitata), 96 h): < 22 µg/l (US-EPA-method)

Toxicity to microorganisms

Product: No data is available on the product itself.

Components:

Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds EL50, Tetrahymena pyriformis, 48 h, > 1,000 mg/l, QSAR

Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol No data available.

Silane, dichlorodimethyl-, reaction products with silica EC 50, local activated sludge, 3 h, > 2,500 mg/l, OECD 209, (analogy)

octamethylcyclotetrasiloxane No data available.

octamethylcyclotetrasiloxane No data available.

12.2 Persistence and Degradability
Biodegradation

Product name: SURFYNOL® DF-62

Product:	85 %, 15 d, OECD 302 B, Good elimination properties
Components:	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	71 %, 28 d, OECD 301 F, (analogy) The product is easily biodegradable., aerobic
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	The methods designed to assess persistence and biodegradability are not applicable to this product, in analogy to inorganic substances.
octamethylcyclotetrasiloxane	3.7 %, 28 d, OECD 310, The product is not biodegradable., aerobic

12.3 Bioaccumulative potential
Bioconcentration Factor (BCF)

Product:	Bioaccumulation is unlikely.
Components:	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	No data available.
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	Not to be expected.
octamethylcyclotetrasiloxane	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	not measured
Components:	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclic compounds, <2% aromatic compounds	No data available.
Silsesquioxanes, methyl, ethoxy terminated, reaction products with polypropylene glycol	No data available.
Silane, dichlorodimethyl-, reaction products with silica	, Not applicable
octamethylcyclotetrasiloxane	6.488, 25.1 °C, OECD 123

12.4 Mobility in soil:

Product	No data available.
Components:	

Product name: SURFYNOL® DF-62

Hydrocarbons, C12-C15, n-No data available.
 alkanes, isoalkanes, cyclic
 compounds, <2% aromatic
 compounds
 Silsesquioxanes, methyl, No data available.
 ethoxy terminated, reaction
 products with polypropylene
 glycol
 Silane, dichlorodimethyl-, No remarkable mobility in soil is to be expected.
 reaction products with silica
 octamethylcyclotetrasiloxane No data available.

12.5 Results of PBT and vPvB assessment:

Product No data available.
Components:
 Hydrocarbons, C12-C15, n- Non-classified vPvB substance,
 alkanes, isoalkanes, cyclic Non-classified PBT substance
 compounds, <2% aromatic
 compounds
 Silsesquioxanes, methyl, No data available.
 ethoxy terminated, reaction
 products with polypropylene
 glycol
 Silane, dichlorodimethyl-, No data available.
 reaction products with silica
 octamethylcyclotetrasiloxane PBT: persistent, bioaccumulative
 and toxic substance. vPvB: very
 persistent and very
 bioaccumulative substance.

12.6 Other adverse effects:
Other hazards

Product: Do not allow to enter soil, waterways or waste water canal.

SECTION 13: Disposal considerations
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13.1 Waste treatment methods

General information: No data available.
Disposal methods: In accordance with local authority regulations, take to special waste incineration plant
Contaminated Packaging: If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

SECTION 14: Transport information
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14.1 UN/ID No.

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

Product name: SURFYNOL® DF-62

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

EU Regulations

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I: Not applicable

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms:

EH40 WEL: UK. EH40 Workplace Exposure Limits (WELs), as amended
EH40 WEL / TWA: Time Weighted Average (TWA):

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EIGA - European Industrial Gases Association; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -

Product name: SURFYNOL® DF-62

Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Notes:

Not applicable	Not applicable
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Key literature references and sources for data: No data available.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 as amended.	Classification procedure
Serious eye irritation, Category 2	On basis of test data

Wording of the statements in section 2 and 3

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H361f	Suspected of damaging fertility.
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Training information: Comply with national laws regulating employee instruction.

Other information: none

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

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