

SAFETY DATA SHEET

1. Identification

Product identifier: SURFYNOL® DF-62

Other means of identification

Recommended use: Industrial use

Recommended restrictions: None known.

Manufacturer/Importer/Distributor Information

Company Name : Evonik (SEA) Pte Ltd.
3 International Business Park
#07-18 Nordic European Centre
Singapore 609927

Telephone : +65 6809 6666

Emergency telephone number:

24-Hour Health : 800 101 2201
Emergency : +65 3158 1349

2. Hazard(s) identification

Classification according to GHS

Not classified

Label Elements

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

Precautionary Statements : Not applicable

Other hazards: No data available.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Naphtha (petroleum), hydrotreated heavy	No data available.	64742-48-9	23%
octamethylcyclotetrasiloxane	No data available.	556-67-2	0,01%

* 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:	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.
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.
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5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Alcohol resistant foam.

Unsuitable extinguishing media: No data available.

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.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures:

No data available.

Special protective equipment for fire-fighters:

Avoid contact with skin.

6. Accidental release measures

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.

Accidental release measures:

Open enclosed spaces to outside atmosphere.

Methods and material for containment and cleaning up:

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

Environmental Precautions:

No data available.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):

No data available.

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.

Storage

Safe storage conditions:

Keep containers tightly closed in a dry, cool and well-ventilated place.

Safe packaging materials:

No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Biological Limit Values

Observe national threshold limit values.

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

General information: No data available.

Eye/face protection: Safety goggles

Skin Protection

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

Other: 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.

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 determined
Boiling Point: Not determined.
 not measured

Flammability:

Upper/lower limit on flammability or explosive limits

Explosive limit - upper: not measured
Explosive limit - lower: not measured
Flash Point: Approximate 226 °F/108 °C (ISO 2719 (Pensky-Martens (A and B Closed Cup)))
Self Ignition Temperature: not measured
Decomposition Temperature: not measured

pH:	Approximate 6
Viscosity	
Dynamic viscosity:	Approximate 49 mPa.s (104 °F/40 °C) 100 mPa.s (77 °F/25 °C)
Kinematic viscosity:	50 - 200 mm ² /s (77 °F/25 °C, DIN 51562)
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	Practically Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	0,4 hPa (100 °F/38 °C)
Relative density:	Approximate 0,940 (77 °F/25 °C)
Density:	Approximate 0,940 g/cm ³ (77 °F/25 °C) (DIN 12791)
Bulk density:	No data available.
Relative vapor density:	not measured

Other information

Explosive properties:	not measured
Oxidizing properties:	not measured
Minimum ignition temperature:	599 °F/315 °C
Metal Corrosion:	No data available.
Evaporation Rate:	No data available.

10. Stability and reactivity

Reactivity:	see section "Possibility of hazardous reactions".
Chemical Stability:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions:	No hazardous reactions are known if properly handled and stored.
Conditions to avoid:	None known.
Incompatible Materials:	None known.
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.

11. Toxicological information

Information on toxicological effects

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:	ATEmix: > 2.000 mg/kg
Components:	
Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane	LD 50 (Rat): > 7.100 - 7.800 mg/kg
	LD 50 (Rat): > 5.000 mg/kg

Dermal

Product:	ATEmix: 9.565,22 mg/kg
Components:	
Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane	LD 50 (Rabbit): > 2.200 - 2.500 mg/kg
	LD 50 (Rat): > 5.000 mg/kg

Inhalation

Product:	Not classified for acute toxicity based on available data.
Components:	
Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane	LC 50 (Guinea Pig, Female, Male, 4 h): > 9,4 mg/l Dusts, mists and fumes No classification, Vapour LC 50 (Rat, Female, Male, 4 h): 36 mg/l Vapour Dusts, mists and fumes, No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane	No data available. 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:	
Naphtha (petroleum), hydrotreated heavy	OECD 404 (Rabbit): Irritating.

Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane	Not classified
	Suspected of damaging fertility or the unborn child. Suspected of damaging fertility.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	
Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane	Inhalation: Central nervous system. - Category 3 with narcotic effects. May cause drowsiness or dizziness.
	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane	Not classified
	No data available.

Aspiration Hazard

Product:	Not classified
Components:	
Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane	May be fatal if swallowed and enters airways.
	Not classified

Information on health hazards
Other hazards

Product:	No data available.
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12. Ecological information
Ecotoxicity:
Acute hazards to the aquatic environment:
Fish

Product:	No data is available on the product itself.
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Components:

Naphtha (petroleum), hydrotreated heavy	LL 50 (Oncorhynchus mykiss, 96 h): 18,4 mg/l WAF
octamethylcyclotetrasiloxane	LC 50 (Oncorhynchus mykiss, 96 h): > 22 µg/l NOEC (Oncorhynchus mykiss, 96 h): 22 µg/l

Aquatic Invertebrates

Product:	No data is available on the product itself.
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Components:

Naphtha (petroleum), hydrotreated heavy	EL50 (Daphnia magna, 48 h): Approximate 2,4 mg/l (analogy)
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octamethylcyclotetrasiloxane
 NOEC (Daphnia magna, 48 h): 15 µg/l
 EC 50 (Daphnia magna, 48 h): > 15 µg/l

Toxicity to Aquatic Plants

Product: No data available.
Components:
 Naphtha (petroleum), hydrotreated heavy 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:
 Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane
 EL50 (Tetrahymena pyriformis, 48 h): 28,48 mg/l (QSAR)
 No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data is available on the product itself.
Components:
 Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane
 NOELR (Oncorhynchus mykiss, 28 d): 0,778 mg/l (QSAR)
 NOEC (Oncorhynchus mykiss, 93 d): 4,4 µg/l (US-EPA-method)

Aquatic Invertebrates

Product: No data is available on the product itself.
Components:
 Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane
 NOELR (Daphnia magna, 21 d): 1 mg/l (OECD 211) (analogy) WAF
 NOEC (Daphnia magna, 21 d): 0,17 mg/l (OECD 211) (analogy) WAF
 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:
 Naphtha (petroleum), hydrotreated heavy 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:
 Naphtha (petroleum), hydrotreated heavy octamethylcyclotetrasiloxane
 EL50 (Tetrahymena pyriformis, 48 h): 28,48 mg/l (QSAR)
 No data available.

Persistence and Degradability

Biodegradation

Product:	85 % (15 d, OECD 302 B), Good elimination properties
Components:	
Naphtha (petroleum), hydrotreated heavy	22 % (28 d, OECD 301 F) The product is not biodegradable., aerobic
octamethylcyclotetrasiloxane	3,7 % (28 d, OECD 310) The product is not biodegradable., aerobic

BOD/COD Ratio

Product:	No data available.
Components:	
Naphtha (petroleum), hydrotreated heavy	No data available.
octamethylcyclotetrasiloxane	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	Bioaccumulation is unlikely.
Components:	
Naphtha (petroleum), hydrotreated heavy	No data available.
octamethylcyclotetrasiloxane	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	Log Kow: not measured
Components:	
Naphtha (petroleum), hydrotreated heavy	No data available.
octamethylcyclotetrasiloxane	Log Kow: 6,488 25,1 °C (OECD 123)

Mobility in soil:

Product	No data available.
Components:	
Naphtha (petroleum), hydrotreated heavy	No data available.
octamethylcyclotetrasiloxane	No data available.

Product	No data available.
Components:	
Naphtha (petroleum), hydrotreated heavy	Non-classified vPvB substance, Non-classified PBT substance
octamethylcyclotetrasiloxane	No data available.

Other adverse effects:

Other hazards

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

13. Disposal considerations

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.

14. Transport information

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

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

Issue Date: 04.03.2019

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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