

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: SURFYNOL® DF-220

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
PO Box 34628
Richmond, VA 23234
USA

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Fax : +1 804 727 0845

E-mail : product-regulatory-services@evonik.com

Emergency telephone number:

24-Hour Health : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency : 800 681 9531 (CHEMTREC MEXICO)
+1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids Category 4

Health Hazards

Aspiration Hazard Category 1

Environmental Hazards

Acute hazards to the aquatic environment Category 2

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement:
 Combustible liquid.
 May be fatal if swallowed and enters airways.
 Toxic to aquatic life.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

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

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
distillates (petroleum), hydrotreated light		64742-47-8	20 - <50%
Stearic acid		57-11-4	5 - <10%
Poly(oxy-1,2-ethanediyl), a-[(9Z)-1-oxo-9-octadecen-1-yl]-w-hydroxy-		9004-96-0	1 - <5%
paraffin waxes and hydrocarbon waxes		8002-74-2	1 - <5%
Undecan-1-ol		112-42-5	0.01 - <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 necessary first-aid measures

General information:	Immediately remove contaminated clothing. Seek medical advice. If breathing is irregular or stopped, administer artificial respiration.
Inhalation:	fresh air supply, consult a doctor if feeling unwell. Move to fresh air.
Skin Contact:	Wash off immediately with plenty of water for at least 15 minutes. In case of discomfort: Supply with medical care.
Eye contact:	In case of contact with eyes rinse thoroughly with water. In case of discomfort: Supply with medical care.
Ingestion:	Thoroughly clean the mouth with water In case of discomfort: Supply with medical care.
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms:	Up to now no symptoms are known.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Treat symptomatically.
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5. Fire-fighting measures

General Fire Hazards:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	foam, carbon dioxide, dry powder, water spray.
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Unsuitable extinguishing media:	High volume water jet.
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Special hazards arising from the substance or mixture:

In the event of fire the following can be released: - carbon dioxide, carbon monoxide Under certain conditions of combustion traces of other toxic substances cannot be excluded

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures:	No specific precautions.
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Special protective equipment for fire-fighters:

Do not inhale explosion and/or combustion gases. Use self-contained breathing apparatus and wear protective suit

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Keep away sources of ignition. Ensure adequate ventilation.

Accidental release measures:

If possible, stop flow of product.

Methods and material for containment and cleaning up:

Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder). Dispose of absorbed material in accordance with the regulations.

Environmental Precautions:

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

7. Handling and storage

Handling

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

No data available.

Safe handling advice:

No special measures necessary if stored and handled as prescribed. Avoid contact with skin and eyes. Do not inhale gases/vapours/aerosols. 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:

Keep containers tightly closed in a dry, cool and well-ventilated place. 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
distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2016)
	TWA	200 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2016)
distillates (petroleum), hydrotreated light	REL	100 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
Stearic acid - Respirable fraction.	TWA	3 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2017)
Stearic acid - Inhalable fraction.	TWA	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2017)
paraffin waxes and hydrocarbon waxes - Fume.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2016)
	REL	2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	TWA	2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	2 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
paraffin waxes and hydrocarbon waxes - Vapor.	AN ESL	100 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as

			amended (06 2018)
	ST ESL	1,000 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)
paraffin waxes and hydrocarbon waxes - Particulate.	AN ESL	2 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (11 2016)
	ST ESL	20 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (11 2016)
paraffin waxes and hydrocarbon waxes - Fume.	TWA PEL	2 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (01 2015)

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

No data available.

Individual protection measures, such as personal protective equipment

Eye/face protection:

Safety glasses

Skin Protection

Hand Protection:

Material: Neoprene gloves

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: PVA

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:

Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. 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:	Pale yellow
Odor:	hydrocarbon-like
Odor Threshold:	No data available., Not required by safety or application considerations.
Freezing point:	No data available. Not required by safety or application considerations.
Boiling Point:	270.0 °F/132.2 °C

Flammability:	No data available.
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	see Explosiveness
Explosive limit - lower:	see Explosiveness
Flash Point:	198 °F/92 °C
Self Ignition Temperature:	The substance or mixture is not classified as pyrophoric. The substance or mixture is not classified as self heating.
Decomposition Temperature:	No decomposition in the field of application.
pH:	Not applicable
Viscosity	
Dynamic viscosity:	5.6 - 5.7 mPa.s (104 °F/40 °C, DIN 53015)
Kinematic viscosity:	6.7 - 6.84 mm ² /s (104 °F/40 °C, DIN 53015)
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available. Not required by safety or application considerations.
Vapor pressure:	3.46 hPa
Relative density:	0.84
Density:	0.829 - 0.833 g/cm ³ (104 °F/40 °C)
Bulk density:	No data available.
Relative vapor density:	No data available.
Other information	
Explosive properties:	Not explosive
Oxidizing properties:	The substance or mixture is not classified as oxidizing.
Minimum ignition temperature:	No data available.
Metal Corrosion:	No data available.
Evaporation Rate:	No data available. Not required by safety or application considerations.

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:	Reactive metals (e.g. sodium, calcium, zinc etc.). Materials reactive with hydroxyl compounds. Oxidizing agents.
Hazardous Decomposition Products:	Carbon Monoxide. Carbon Dioxide. Aldehydes. Flammable hydrocarbon fragments.

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: LD 50 (Rat): > 15,380 mg/kg

Dermal

Product: LD 50 (Rabbit): > 3,083 mg/kg

Inhalation

Product: No data is available on the product itself.
Not classified for acute toxicity based on available data.

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: Slightly irritating. Slightly irritating.;

Serious Eye Damage/Eye Irritation

Product: Irritant Irritant

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 1910.1001-1050), 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:
 distillates (petroleum), hydrotreated light Bacterial reverse mutation assay (OECD 471): negative

In vivo

Product: No data available.
Components:
 distillates (petroleum), hydrotreated light Micronucleus test (OECD 474) Oral (Mouse, Female, Male): negative (analogy)

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: No data available.

Information on health hazards
Other hazards

Product: No data available.

12. Ecological information

Ecotoxicity:
Acute hazards to the aquatic environment:
Fish

Product: LC 50 (Fathead Minnow, 96 h): 190 mg/l
 LC 50 (Oncorhynchus mykiss, 96 h): 310 mg/l
 LC 50 (Lepomis macrochirus (Bluegill sunfish), 96 h): 121 mg/l

Aquatic Invertebrates

Product: LC 50 (Daphnia magna, 48 h): 220 mg/l

Toxicity to Aquatic Plants

Product: No data available.
Components:
 Poly(oxy-1,2-ethanediyl), a-[(9Z)-1-oxo-9-octadecen-1-yl]-w-hydroxy- Undecan-1-ol EC 50 (Alga, 72 h): > 10 - 100 mg/l
 EC 50 (72 h): 0.1 - 1 mg/l (OECD 201)

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 Aquatic Plants

Product: No data available.

Toxicity to microorganisms

Product: No data available.

Persistence and Degradability

Biodegradation

Product: Inherently biodegradable

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: No data available. Not required by safety or application considerations.

Mobility in soil:

Product No data available.

Results of PBT and vPvB assessment:

Product 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

Domestic regulation

49 CFR

UN/ID/NA number : NA 1993
 Proper shipping name : Combustible liquid, n.o.s.
 (Distillates (petroleum), hydrotreated light)
 Class : CBL
 Packing group : III
 Labels : NONE

Product name: SURFYNOL® DF-220

ERG Code : 128
Marine pollutant : no
Remarks : Not regulated in packages 450 liter or less.

International Regulations**UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

Remarks : Not hazardous freight in air traffic (ICAO-TI / IATA-DGR).

IMDG-Code

Not regulated as a dangerous good

Remarks : Not classified as hazardous sea cargo (IMDG code)FOR USA ONLY: In packagings exceeding 450 L, this product must be classified, placarded, marked and shipped as Combustible Liquid to the USA.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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), as amended

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), Aspiration Hazard

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.

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

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

Health	1
Flammability	2
Physical Hazards	0
PERSONAL PROTECTION	B

B - Safety Glasses & Gloves

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

Issue Date: 03/13/2019

Version #: 2.0

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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