

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: SURFYNOL® DF-110 L

Chemical name:
Acetylenic diol in solvent

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

Telephone : +1 804 727 0700

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

Health Hazards

Acute toxicity (Oral)	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Specific Target Organ Toxicity - Repeated Exposure	Category 2

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: Harmful if swallowed or if inhaled.
 Causes skin irritation.
 Causes serious eye irritation.
 Suspected of damaging fertility or the unborn child.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention: Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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: Wash with plenty of water/... If skin irritation occurs: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTRE/doctor/... if you feel unwell. Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing.

Storage: 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:
 Acetylenic diol in solvent

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
Ethane-1,2-diol		107-21-1	25 - <50%
2,5,8,11-Tetramethyldodec-6-yne-5,8-diol		68227-33-8	10 - <20%

^{*} 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.
Inhalation:	Ensure supply of fresh air. In the event of symptoms seek medical advice.
Skin Contact:	In case of contact with skin wash off with soap and water. Consult a doctor if skin irritation persists.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water. If symptoms persist, seek medical advice.
Ingestion:	Thoroughly clean the mouth with water In the event of symptoms seek medical advice.
Personal Protection for First-aid Responders:	Do not inhale explosion and/or combustion gases, Use self-contained breathing apparatus and wear protective suit

Most important symptoms/effects, acute and delayed

Symptoms: Serious eye irritation skin irritation possible

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: foam, carbon dioxide, dry powder, water spray.

Unsuitable extinguishing media: Full water jet

Specific hazards arising from the chemical: 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 firefighters

Special fire fighting procedures: No specific precautions.

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.

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 Do not discharge into the subsoil/soil.

7. Handling and storage

Handling

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

No data available.

Safe handling advice:

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid contact with skin and eyes. Do not inhale gases/vapours/aerosols.

Contact avoidance measures:

No data available.

Hygiene measures:

Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when working. Remove soiled or soaked clothing immediately.

Storage

Safe storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Do not store together with oxidizing agents.

Safe packaging materials:

No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Ethane-1,2-diol - Aerosol, inhalable.	STEL	10 mg/m ³	US. ACGIH Threshold Limit Values, as amended (03 2017)
Ethane-1,2-diol - Vapor fraction	TWA	25 ppm	US. ACGIH Threshold Limit Values, as amended (03 2017)
	STEL	50 ppm	US. ACGIH Threshold Limit Values, as amended (03 2017)
Ethane-1,2-diol	Ceiling	50 ppm 125 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	Ceiling	50 ppm 125 mg/m ³	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
	AN ESL	1.8 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)
	ST ESL	450 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)
	AN ESL	4.5 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)

	ST ESL	180 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)
Ethane-1,2-diol - Vapor.	Ceiling	40 ppm 100 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (01 2015)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

Eye/face protection: Safety glasses

Skin Protection

Hand Protection: Additional Information: gloves made of chloroprene (CR, e.g. Neoprene), gloves made of nitril (NBR)

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. Do not eat, drink or smoke when working. Remove soiled or soaked clothing immediately.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	light yellow
Odor:	Characteristic
Odor Threshold:	not measured
pH:	not measured
Freezing point:	not measured
Boiling Point:	> 199 °C
Flash Point:	> 110 °C
Evaporation Rate:	not measured
Flammability (solid, gas):	not measured
Explosive limit - upper (%):	not measured
Explosive limit - lower (%):	not measured
Vapor pressure:	13.3 hPa (21 °C)
Vapor density (air=1):	not measured
Density:	1.03 g/cm ³ (21 °C)
Relative density:	not measured
Solubility in Water:	not measured
Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Self Ignition Temperature:	not measured
Decomposition Temperature:	not measured
Kinematic viscosity:	not measured

Dynamic viscosity:	not measured
Other information	
Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Minimum ignition temperature:	not measured
Metal Corrosion:	Does not corrode metal.

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:	None with proper storage and handling.
Incompatible Materials:	Oxidizing agents.
Hazardous Decomposition Products:	None with proper storage and handling.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	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:	ATEmix: 1,234.57 mg/kg
Dermal	
Product:	LD 50 (Rabbit): > 2,000 mg/kg
Inhalation	
Product:	LC 50 (Rat): > 20 mg/l Dusts, mists and fumes

Repeated dose toxicity**Product:** No data available.**Skin Corrosion/Irritation****Product:** No data available.**Serious Eye Damage/Eye Irritation****Product:** No data available.**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.**Components:**

2,5,8,11-

Tetramethyldodec-6-yne-

5,8-diol

Ames test (OECD 471): negative

Ames test (OECD 471): negative

Chromosomal aberration (OECD 473): negative

In vivo**Product:** No data available.**Reproductive toxicity****Product:** No data available.**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**Other effects:** No data available.

12. Ecological information**Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Aquatic Invertebrates****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.**Persistence and Degradability****Biodegradation****Product:** No data available.**BOD/COD Ratio****Product:** No data available.**Bioaccumulative potential****Bioconcentration Factor (BCF)****Product:** No data available.**Partition Coefficient n-octanol / water (log K_{ow})****Product:** Log K_{ow}: not measured**Mobility in soil:**

No data available.

Components:**II**

Ethane-1,2-diol

No data available.

2,5,8,11-

No data available.

Tetramethyldodec-6-yne-

5,8-diol

Other adverse effects:

The product is classified as extremely 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:**

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**

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

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**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):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
ETHYLENE GLYCOL	5000 lbs.

<u>Chemical Identity</u>	<u>Reportable quantity</u>
ETHYLENE GLYCOL	5000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Acute toxicity (any route of exposure), Skin Corrosion or Irritation, Serious eye damage or eye irritation, Reproductive toxicity, Specific target organ toxicity (single or repeated exposure)

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

Chemical Identity

|| Ethane-1,2-diol

US. EPCRA (SARA Title III) Section 312 Extremely Hazardous Substances Reporting Quantities (40 CFR 355, Appendix A)

Chemical Identity

Threshold Planning Quantity

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

Chemical Identity

|| Ethane-1,2-diol

Reporting threshold for

other users

Otherwise used (non-manufacturing/processing)

Chemical Identity

|| Ethane-1,2-diol

Reporting threshold for

other users

Otherwise used (non-manufacturing/processing)

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

Not regulated.



WARNING: This product can expose you to chemicals including, Ethane-1,2-diol which is [are] known to the State of California to cause birth defects or other reproductive harm.

This product can expose you to chemicals including, Ethane-1,2-diol which is [are] known to the State of California to cause birth defects or other reproductive harm.

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

Chemical Identity

|| Ethane-1,2-diol

Chemical Identity

|| Ethane-1,2-diol

US. Massachusetts RTK - Substance List

Chemical Identity

|| Ethane-1,2-diol

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Oxydipropanol

|| Ethane-1,2-diol

Chemical Identity

|| Oxydipropanol

|| Ethane-1,2-diol

US. Rhode Island RTK
Chemical Identity

|| Ethane-1,2-diol

No ingredient regulated by RI Right-to-Know Law present.

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	* 2
Flammability	1
Physical Hazards	0
PERSONAL PROTECTION	E

E - Safety Glasses, Gloves & Dust Respirator

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

Issue Date: 10/11/2019

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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