

Product name: SURFYNOL® SE

SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: SURFYNOL® SE

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 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 Emergency Telephone	: +1 800 424 9300 (CHEMTREC - US & CANADA) 800 681 9531 (CHEMTREC MEXICO) +1 703 527 3887 (CHEMTREC WORLD)
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2. Hazard(s) identification

Hazards for the product as supplied

Health Hazards

Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1B

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
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Unknown toxicity - Environment

Acute hazards to the aquatic environment	0 %
Chronic hazards to the aquatic environment	0 %

Product name: SURFYNOL® SE

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

Label Elements
Hazard Symbol:

Signal Word: Danger

Hazard Statement:

 Causes serious eye damage.
 May cause an allergic skin reaction.
 Harmful to aquatic life.

Precautionary Statements
Prevention:

Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/ eye protection/ face protection.

Response:

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label). Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Disposal:

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

3. Composition/information on ingredients
Chemical name:

Acetylenic diol in solvent

Mixtures

Chemical Identity	Common name and synonyms	CAS No./Unique ID	Content in percent (%) [*]	Trade Secret
2,4,7,9-Tetramethyldec-5-yne-4,7-diol		126-86-3 [*]	60 - <80%	TSC

^{*} Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

^{*} 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

Product name: SURFYNOL® SE

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. In case of discomfort: Supply with medical care.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice
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:	Risk of serious damage to eyes.
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:	foam, carbon dioxide, dry powder, water spray.
Unsuitable extinguishing media:	High volume water jet.
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 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.
Accidental release measures:	No data available.

Product name: SURFYNOL® SE

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:

No data available.

Local/Total 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.

Storage

Safe storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Protect from frost. Do not store with acids or alkalies. Do not store together with oxidizing agents.

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

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

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection:

Tightly fitting safety goggles

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

Product name: SURFYNOL® SE

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:	like menthol
Odor Threshold:	not measured
Freezing point:	not measured
Boiling Point:	> 284 °F/ > 140 °C
Flammability:	not measured
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	> 230 °F/> 110 °C
Auto-ignition temperature:	not measured

Decomposition Temperature: not measured

pH: 5 (77 °F/25 °C)
 Concentration: 50 g/l
 Concentration: 5 %
 in Water

Viscosity

Dynamic viscosity:	not measured
Kinematic viscosity:	not measured
Flow Time:	No data available.

Solubility(ies)

Solubility in Water:	not measured
Solubility (other):	not measured

Partition coefficient (n-octanol/water): not measured

Vapor pressure: 33.3 hPa (70 °F/21 °C)

Relative density: not measured

Density: 0.94 g/cm³ (70 °F/21 °C)

Bulk density: No data available.

Relative vapor density: not measured

Particle characteristics: Not applicable.

Other information
Explosive properties: not measured

Product name: SURFYNOL® SE

Oxidizing properties:	not oxidizing
Self-ignition:	not measured
Metal Corrosion:	Not corrosive to metals
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:	Freezing.
Incompatible Materials:	Oxidizing agents. Acids. Alkalies.
Hazardous Decomposition Products:	None with proper storage and handling.

11. Toxicological information**Information on likely routes of exposure**

Inhalation:	Information on effects are given below.
Skin Contact:	Information on effects are given below.
Eye contact:	Information on effects are given below.
Ingestion:	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.

Acute toxicity (list all possible routes of exposure)**Oral**

Product:	LD 50, Rat, 4,900 mg/kg
Components: 2,4,7,9-Tetramethyldec-5-yne-4,7-diol	LD 50, Rat, Female, Male, > 5,000 mg/kg

Dermal

Product:	LD 50, ATEmix, > 5,000 mg/kg
Components: 2,4,7,9-Tetramethyldec-5-yne-4,7-diol	LD 50, Rabbit, > 5,000 mg/kg, OECD 402

Product name: SURFYNOL® SE

Inhalation

Product: No data available.
 Not classified for acute toxicity based on available data.

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol LC 50, Rat, 4 h, > 5 mg/l, Dust and mist
 Vapour, Not toxic after single exposure, No data available.

Repeated dose toxicity

Product: No data available.

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol NOAEL - No Observable Adverse Effect Level, Rat, Oral, daily, 500 mg/kg
 NOAEL - No Observable Adverse Effect Level, Rat, Male, Oral, daily, 174 mg/kg, Own study
 NOAEL - No Observable Adverse Effect Level, Rat, Female, Oral, daily, 208 mg/kg, Own study

Skin Corrosion/Irritation

Product: No data available.

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol Not irritating, OECD 404, Rabbit, 4 h

Serious Eye Damage/Eye Irritation

Product: No data available.

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol Risk of serious damage to eyes., US-EPA-method, Rabbit

Respiratory or Skin Sensitization

Product: No data available.

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol Local Lymph Node Assay (LLNA), OECD 429, Mouse, Skin sensitizer

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 available.

In vitro

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol Ames test, OECD 471: , negative, Own study
 Chromosomal aberration, OECD 473: , negative, Own study
 gene mutation test, OECD 476: , negative, Own study

Product name: SURFYNOL® SE

In vivo

Not classified based on available data.

Reproductive toxicity**Effects on fertility****Components:**

2,4,7,9-Tetramethyldec-5-yne-4,7-diol

Species: Rat

Route: Oral

Dose: 0, 500, 1000, 2000 mg/kg bw/day

General Toxicity Parent: NOAEL, 500 mg/kg bw/day

General Toxicity F1: NOAEL, 500, mg/kg bw/day

Test Type: Screening for reproductive/developmental toxicity

Species: Rat, Male

Strain: Sprague-Dawley

Route: oral: feed

Dose: 800, 2500, 7500 ppm

Frequency of Treatment: 29 day(s)

General Toxicity Parent: NOAEL, 174 mg/kg bw/day

General Toxicity F1: NOAEL, 518, mg/kg bw/day

Method: OECD 422

Result: Animal testing did not show any effects on fertility.

GLP: GLP

Remarks: Own study

Test Type: Screening for reproductive/developmental toxicity

Species: Rat, Female

Strain: Sprague-Dawley

Route: oral: feed

Dose: 800, 2500, 7500 ppm

Frequency of Treatment: 43 day(s)

General Toxicity Parent: NOAEL, 208 mg/kg bw/day

General Toxicity F1: NOAEL, 633, mg/kg bw/day

Method: OECD 422

Result: Animal testing did not show any effects on fertility.

GLP: GLP

Remarks: Own study

Effects on fetal development**Components:**

2,4,7,9-Tetramethyldec-5-yne-4,7-diol

Species: Rat

Strain: Sprague-Dawley

Route: oral: feed

Dose: 0, 500, 1000, 2000 mg/kg bw/day

General Toxicity Maternal: NOAEL, 500 mg/kg bw/day

Embryo-fetal toxicity: NOAEL, 500 mg/kg bw/day

Test Type: Teratogenicity

Species: Rat

Strain: Sprague-Dawley

Route: oral: feed

Dose: 1500, 5000, 15000 ppm

Duration of Single Treatment: 16 d

General Toxicity Maternal: NOAEL, 15,000 ppm

Teratogenicity: NOAEL, 15,000 ppm

Method: OECD 422

Result: No adverse effects

GLP: GLP

Product name: SURFYNOL® SE

Reproductive toxicity - Assessment

Product: Reproductive toxicity: No data available.
 Teratogenicity: 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

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol Not applicable

Information on health hazards

Other hazards

Product: No data available.

12. Ecological information

Ecotoxicity:

Toxicity to Aquatic Plants

Product: No data available.

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol ErC10, Selenastrum capricornutum (green algae), 72 h, 15 mg/l, OECD 201
 ErC50, Selenastrum capricornutum (green algae), 72 h, 82 mg/l, OECD 201

Toxicity to microorganisms

Product: No data available.

Toxicity to soil dwelling organisms

Product: No data available.

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol N-Transformation, NOEC, soil microorganisms, 28 d, 97.7 mg/kg, N-Transformation, OECD 216, GLP

Toxicity to terrestrial organisms

Product: No data available.

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol EC 10, 3.84 mg/kg, dry weight Shoot, OECD 208, GLP

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Components:
 2,4,7,9-Tetramethyldec-5-yne-4,7-diol LC 50, Cyprinus carpio, 96 h, 42 mg/l/OECD 203, Own study

Aquatic Invertebrates

Product name: SURFYNOL® SE

Product: No data available.

Components:

2,4,7,9-Tetramethyldec-5-yne-4,7-diol EC 50, Daphnia magna, 91 mg/IOECD 202, Own study

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Components:

2,4,7,9-Tetramethyldec-5-yne-4,7-diol NOEC, Danio rerio, 35 d, > 10 mg/l, OECD 210

Aquatic Invertebrates

Product: No data available.

Components:

2,4,7,9-Tetramethyldec-5-yne-4,7-diol NOEC, Daphnia magna, 21 d, > 10 mg/l, OECD 211

Persistence and Degradability

Biodegradation

Product: No data available.

Components:

2,4,7,9-Tetramethyldec-5-yne-4,7-diol < 10 %, 60 d, OECD 309, aerobic

BOD/COD Ratio

No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Components:

2,4,7,9-Tetramethyldec-5-yne-4,7-diol Cyprinus carpio, 17.00, (analogy)
 Cyprinus carpio, < 24, (analogy)

Partition Coefficient n-octanol / water (log K_{ow})

Product: not measured

Components:

2,4,7,9-Tetramethyldec-5-yne-4,7-diol 2.8, 22 °C, OECD 117, Yes

Mobility in soil:

Components:

2,4,7,9-Tetramethyldec-5-yne-4,7-diol water / soil: - Log K_{oc}: 1.48 K_{oc}: 30 OECD 106)

Results of PBT and vPvB assessment:

No data available.

Other adverse effects:

Additional ecological information

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

13. Disposal considerations

Product name: SURFYNOL® SE

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 (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 and 725, 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

Chemical Identity

OSHA hazard(s)

METHYL ISOBUTYL

KETONE

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):

Chemical Identity

4-Methyl-2-pentanone

Chemical Identity

4-Methyl-2-pentanone

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Product name: SURFYNOL® SE

Serious eye damage or eye irritation, Respiratory or Skin Sensitization

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

Health	2*
Flammability	1
Physical Hazards	0
PERSONAL PROTECTION	

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

Version #: 2.0
Revision Date: 10/07/2025
Date of first report version: 03/13/2019

Abbreviations and acronyms:

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 -

Product name: SURFYNOL® SE

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 Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

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