

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** SURFYNOL® CT-111

**Chemical name:** Surfactant blend

### Other means of identification

**Recommended use:** Industrial use

**Recommended restrictions:** 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

### Classification according to GHS

#### Health Hazards

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

#### Environmental Hazards

Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

### Label Elements

**Hazard Symbol:**

**Signal Word:** Danger

**Hazard Statement:** Causes serious eye damage.  
 May cause an allergic skin reaction.  
 Harmful to aquatic life with long lasting effects.

**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.

**Other hazards:** None known.

<b>3. Composition/information on ingredients</b>
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**Chemical name:**  
 Surfactant blend

**Mixtures**

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
2,4,7,9-Tetramethyldec-5-yne-4,7-diol	No data available.	126-86-3	30 - 60%
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched	No data available.	68412-54-4	30 - 60%

\* 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

<b>General information:</b>	Immediately remove contaminated clothing.
<b>Inhalation:</b>	fresh air supply, consult a doctor if feeling unwell.
<b>Skin Contact:</b>	In case of contact with skin wash off with soap and water. In case of discomfort: Supply with medical care.
<b>Eye contact:</b>	In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice
<b>Ingestion:</b>	Thoroughly clean the mouth with water In case of discomfort: Supply with medical care.
<b>Personal Protection for First-aid Responders:</b>	No data available.

##### Most important symptoms and effects, both acute and delayed

<b>Symptoms:</b>	Risk of serious damage to eyes.
<b>Hazards:</b>	No data available.

##### Indication of immediate medical attention and special treatment needed

<b>Treatment:</b>	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 fire-fighters

**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

<b>Personal precautions, protective equipment and emergency procedures:</b>	Use personal protective equipment.
<b>Accidental release measures:</b>	No data available.
<b>Methods and material for containment and cleaning up:</b>	Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder). Dispose of absorbed material in accordance with the regulations.
<b>Environmental Precautions:</b>	Do not allow to enter drains or waterways Prevent product from getting into subsoil/soil.

## 7. Handling and storage

### Handling

<b>Technical measures (e.g. Local and general ventilation):</b>	No data available.
<b>Safe handling advice:</b>	Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid contact with skin and eyes. Do not inhale gases/vapours/aerosols.
<b>Contact avoidance measures:</b>	No data available.

### Storage

<b>Safe storage conditions:</b>	Keep container tightly closed in a cool, well-ventilated place. Protect from frost. Do not store together with oxidizing agents.
<b>Safe packaging materials:</b>	No data available.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Observe national threshold limit values.

#### Biological Limit Values

Observe national threshold limit values.

### Appropriate Engineering Controls

No data available.

### Individual protection measures, such as personal protective equipment

<b>General information:</b>	No data available.
<b>Eye/face protection:</b>	Tightly fitting safety goggles

### Skin Protection

<b>Hand Protection:</b>	Additional Information: gloves made of chloroprene (CR, e.g. Neoprene), gloves made of nitril (NBR)
<b>Other:</b>	protective clothing
<b>Respiratory Protection:</b>	in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2
<b>Hygiene measures:</b>	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

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Pale yellow
<b>Odor:</b>	Odorless
<b>Odor Threshold:</b>	not measured
<b>Freezing point:</b>	not measured
<b>Boiling Point:</b>	214 °F/101 °C
<b>Flammability:</b>	not measured

#### Upper/lower limit on flammability or explosive limits

<b>Explosive limit - upper:</b>	not measured
<b>Explosive limit - lower:</b>	not measured
<b>Flash Point:</b>	> 228 °F/> 109 °C
<b>Self Ignition Temperature:</b>	not measured
<b>Decomposition Temperature:</b>	not measured
<b>pH:</b>	not measured

#### Viscosity

<b>Dynamic viscosity:</b>	not measured
<b>Kinematic viscosity:</b>	not measured
<b>Flow Time:</b>	No data available.

#### Solubility(ies)

<b>Solubility in Water:</b>	not measured
<b>Solubility (other):</b>	not measured
<b>Partition coefficient (n-octanol/water):</b>	not measured
<b>Vapor pressure:</b>	22,2 hPa (70 °F/21 °C)
<b>Relative density:</b>	not measured
<b>Density:</b>	1 g/cm <sup>3</sup> (70 °F/21 °C)
<b>Bulk density:</b>	No data available.
<b>Relative vapor density:</b>	not measured

**Other information**

<b>Explosive properties:</b>	not measured
<b>Oxidizing properties:</b>	not oxidizing
<b>Minimum ignition temperature:</b>	not measured
<b>Metal Corrosion:</b>	Not corrosive to metals
<b>Evaporation Rate:</b>	not measured

**10. Stability and reactivity**

<b>Reactivity:</b>	see section "Possibility of hazardous reactions".
<b>Chemical Stability:</b>	The product is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	No hazardous reactions with proper storage and handling
<b>Conditions to avoid:</b>	Freezing.
<b>Incompatible Materials:</b>	Oxidizing agents.
<b>Hazardous Decomposition Products:</b>	None with proper storage and handling.

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

<b>Inhalation:</b>	Information on effects are given below.
<b>Skin Contact:</b>	Information on effects are given below.
<b>Eye contact:</b>	Information on effects are given below.
<b>Ingestion:</b>	Information on effects are given below.

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

<b>Product:</b>	LD 50 (ATEmix): > 5.000 mg/kg
<b>Components:</b>	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol	LD 50 (Rat): > 5.000 mg/kg
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched	LD 50 (Rat): 3.000 mg/kg

**Dermal**

<b>Product:</b>	LD 50 (ATEmix): > 5.000 mg/kg
<b>Components:</b>	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol	LD 50 (Rabbit): > 5.000 mg/kg

Poly(oxy-1,2-ethanediyl),  
 a-(nonylphenyl)-ω-  
 hydroxy-, branched      LD 50 (Rabbit): 2.830 mg/kg

#### Inhalation

**Product:** No data available.

**Components:**

2,4,7,9-Tetramethyldec-5-yne-4,7-diol      LC 50 (Rat, 1 h): > 20 mg/l Dusts, mists and fumes LC 50 (Rat, 4 h): > 5 mg/l Dusts, mists and fumes Vapour, No data available.

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched      Vapour, No data available. Dusts, mists and fumes, 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

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched      No data available.

#### Skin Corrosion/Irritation

**Product:** No data available.

**Components:**

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

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched      No data available.

#### Serious Eye Damage/Eye Irritation

**Product:** No data available.

**Components:**

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

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched      (Rabbit): Irritating.

#### 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

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched      No data available.

#### Carcinogenicity

**Product:** No data available.

**Components:**

2,4,7,9-Tetramethyldec-5-yne-4,7-diol No data available.  
 Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

### Germ Cell Mutagenicity

No data available.

#### In vitro

**Product:** No data available.

**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

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

#### In vivo

**Product:** No data available.

**Components:**

2,4,7,9-Tetramethyldec-5-yne-4,7-diol No data available.

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

### Reproductive toxicity

**Product:** No data available.

**Components:**

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

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

### Specific Target Organ Toxicity - Single Exposure

**Product:** No data available.

**Components:**

2,4,7,9-Tetramethyldec-5-yne-4,7-diol No data available.

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

### Specific Target Organ Toxicity - Repeated Exposure

**Product:** No data available.

**Components:**

2,4,7,9-Tetramethyldec-5-yne-4,7-diol No data available.

Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

### Aspiration Hazard



<b>Product:</b>	Not classified
<b>Components:</b>	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol	Not applicable
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched	Not classified

### Information on health hazards

#### Other hazards

<b>Product:</b>	No data available.
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## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

#### Fish

<b>Product:</b>	No data available.
<b>Components:</b>	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol	LC 50 (Pimephales promelas, 96 h): 36 mg/l LC 50 (Cyprinus carpio (Carp), 96 h): 42 mg/l NOEC (Cyprinus carpio (Carp), 96 h): 10 mg/l
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched	No data available.

#### Aquatic Invertebrates

<b>Product:</b>	No data available.
<b>Components:</b>	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol	EC 50 (Daphnia magna, 48 h): 88 mg/l EC 50 (Daphnia magna, 48 h): 91 mg/l NOEC (Daphnia magna, 48 h): 43 mg/l
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched	No data available.

#### Toxicity to Aquatic Plants

<b>Product:</b>	No data available.
<b>Components:</b>	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol	EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 15 mg/l (OECD 201) EC 10 (Algae (Pseudokirchneriella subcapitata), 72 h): 1,8 mg/l (OECD 201) ErC50 (Algae (Pseudokirchneriella subcapitata), 72 h): 82 mg/l (OECD 201)
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched	No data available.

#### Toxicity to microorganisms

**Product:** No data available.  
**Components:**  
2,4,7,9-Tetramethyldec-5-yne-4,7-diol EC 50 (activated sludge, 3 h): Approximate 630 mg/l (OECD 209)  
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.  
**Components:**  
2,4,7,9-Tetramethyldec-5-yne-4,7-diol No data available.  
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

##### Aquatic Invertebrates

**Product:** No data available.  
**Components:**  
2,4,7,9-Tetramethyldec-5-yne-4,7-diol No data available.  
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

##### Toxicity to Aquatic Plants

**Product:** No data available.  
**Components:**  
2,4,7,9-Tetramethyldec-5-yne-4,7-diol No data available.  
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

##### Toxicity to microorganisms

**Product:** No data available.  
**Components:**  
2,4,7,9-Tetramethyldec-5-yne-4,7-diol EC 50 (activated sludge, 3 h): Approximate 630 mg/l (OECD 209)  
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- $\omega$ -hydroxy-, branched No data available.

#### Persistence and Degradability

##### Biodegradation

**Product:** No data available.  
**Components:**  
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 5 % (28 d, OECD 301 B) The product is not biodegradable., aerobic  
8 - 12 % (60 d, OECD 301 B) The product is not biodegradable., aerobic  
25,4 % (57 d, OECD 302 A) The product is not biodegradable., aerobic

Poly(oxy-1,2-ethanediyl),  
a-(nonylphenyl)- $\omega$ -  
hydroxy-, branched

#### **BOD/COD Ratio**

**Product:** No data available.

**Components:**

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

Poly(oxy-1,2-ethanediyl),  
a-(nonylphenyl)- $\omega$ -  
hydroxy-, branched

#### **Bioaccumulative potential**

##### **Bioconcentration Factor (BCF)**

**Product:** No data available.

**Components:**

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

Poly(oxy-1,2-ethanediyl),  
a-(nonylphenyl)- $\omega$ -  
hydroxy-, branched

##### **Partition Coefficient n-octanol / water (log Kow)**

**Product:** Log Kow: not measured

**Components:**

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

Poly(oxy-1,2-ethanediyl),  
a-(nonylphenyl)- $\omega$ -  
hydroxy-, branched

#### **Mobility in soil:**

**Product** No data available.

**Components:**

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

Poly(oxy-1,2-ethanediyl), a-  
(nonylphenyl)- $\omega$ -hydroxy-,  
branched

**Product** No data available.

**Components:**

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

Poly(oxy-1,2-ethanediyl), a-  
(nonylphenyl)- $\omega$ -hydroxy-,  
branched

#### **Other adverse effects:**

#### **Other hazards**

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**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 #:** 1.2

**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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