

# SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

## 1. Identification

**Product identifier:** SURFYNOL® 104 Z

**Chemical name:**

Organic surface active agent

**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 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**

Serious Eye Damage/Eye Irritation Category 2A

**Environmental Hazards**

Acute hazards to the aquatic environment Category 3

Chronic hazards to the aquatic environment Category 3

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Warning

**Hazard Statement:**  
Causes serious eye irritation.  
Harmful to aquatic life with long lasting effects.

**Precautionary Statements**

**Prevention:** Wash face, hands and any exposed skin thoroughly after handling. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:** 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.

**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

**Chemical name:**  
Organic surface active agent  
**Mixtures**

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) <sup>*</sup>
2,4,7,9-Tetramethyldec-5-yne-4,7-diol		126-86-3	25 - <50%
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol		9014-85-1	5 - <10%

<sup>\*</sup> 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 first aid measures**

**General information:** Remove soiled or soaked clothing immediately

**Inhalation:** 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. If symptoms persist, 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>	Serious eye irritation
<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**

<b>Suitable extinguishing media:</b>	foam, carbon dioxide, dry powder, water spray.
<b>Unsuitable extinguishing media:</b>	High volume water jet.
<b>Special hazards arising from the substance or mixture:</b>	In the event of fire the following can be released: - carbon dioxide, carbon monoxide Aldehydes. Under certain conditions of combustion traces of other toxic substances cannot be excluded

**Special protective equipment and precautions for firefighters**

<b>Special fire fighting procedures:</b>	No specific precautions.
<b>Special protective equipment for fire-fighters:</b>	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>	Take up with absorbent material (eg sand, kieselguhr, universal 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:</b>	No data available.
<b>Local/Total ventilation:</b>	No data available.
<b>Safe handling advice:</b>	Provide good ventilation of working area (local exhaust ventilation if necessary). Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes.
<b>Contact avoidance measures:</b>	No data available.

### Storage

<b>Safe storage conditions:</b>	Keep container tightly closed in a cool, well-ventilated place. Do not store with acids or alkalis. 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

None of the components have assigned exposure limits.

#### Biological Limit Values

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

<b>Appropriate Engineering Controls</b>	No data available.
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### Individual protection measures, such as personal protective equipment

<b>Eye/face protection:</b>	Safety glasses
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### Skin Protection

<b>Hand Protection:</b>	Additional Information: gloves made of chloroprene (CR, e.g. Neoprene), gloves made of nitril (NBR)
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<b>Skin and Body Protection:</b>	protective clothing
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<b>Respiratory Protection:</b>	in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2
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<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.
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## 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:	32 - 41 °F/ 0 - 5 °C
Boiling Point:	203 - 221 °F/95 - 105 °C
Flammability:	not measured
<b>Upper/lower limit on flammability or explosive limits</b>	
Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	> 212 °F/> 100 °C
Auto-ignition temperature:	not measured
Decomposition Temperature:	not measured
pH:	5 at 70 °F/21 °C Concentration: 2 g/l Concentration: 0.2 % in Water

#### Viscosity

Dynamic viscosity:	200 mPa.s at 70 °F/21 °C
Kinematic viscosity:	204 mm <sup>2</sup> /s at 70 °F/21 °C , Method: calculated
Flow Time:	No data available.

#### Solubility(ies)

Solubility in Water:	2 g/l at 70 °F/21 °C
Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	not measured
Relative density:	not measured
Density:	0.98 g/cm <sup>3</sup> at 70 °F/21 °C
Bulk density:	No data available.
Relative vapor density:	not measured

#### Other information

Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Self-ignition:	not measured
Metal Corrosion:	Not corrosive to metals
Evaporation Rate:	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>	None with proper storage and handling.
<b>Incompatible Materials:</b>	Oxidizing agents. Acids. Alkalies.
<b>Hazardous Decomposition Products:</b>	None with proper storage and handling.

## 11. Toxicological information

### 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>	No data available. Not classified for acute toxicity based on available data.
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#### Dermal

<b>Product:</b>	No data available. Not classified for acute toxicity based on available data.
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#### Inhalation

<b>Product:</b>	No data available. Not classified for acute toxicity based on available data.
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#### Repeated dose toxicity

<b>Product:</b>	No data available.
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#### Skin Corrosion/Irritation

<b>Product:</b>	No data available.
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#### Serious Eye Damage/Eye Irritation

<b>Product:</b>	Irritating., OECD 437, Bovine cornea, Irritating., Non-corrosive in an in vitro test.
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#### Respiratory or Skin Sensitization

<b>Product:</b>	Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer., Own study
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#### Carcinogenicity

<b>Product:</b>	No data available.
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**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**

**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

**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

**Information on health hazards**

**Other hazards**

**Product:** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:**

**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 microorganisms**

**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<sub>ow</sub>)**

**Product:** , not measured

**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**



Not regulated as a dangerous good

#### **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, 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**

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):**

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

#### **Superfund Amendments and Reauthorization Act of 1986 (SARA)**

##### **Hazard categories**

Serious eye damage or eye irritation

##### **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:

<b>US TSCA Inventory:</b>	Included on Inventory.
<b>Canada DSL Inventory List:</b>	Included on Inventory.

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

### HMIS Hazard ID

<b>Health</b>	<input type="text" value="2"/>
<b>Flammability</b>	<input type="text" value="1"/>
<b>Physical Hazards</b>	<input type="text" value="0"/>
<b>PERSONAL PROTECTION</b>	<b>B</b>

B - Safety Glasses & Gloves

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

**Version #:** 1.3  
**Generation date:** 03/05/2024  
**Date of first report version:** 03/13/2019

### Abbreviations and acronyms:

AIIIC - 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 - 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** Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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