

# SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

## 1. Identification

**Product identifier:** SURFYNOL® 104 PA

**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 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 2

**Health Hazards**

Serious Eye Damage/Eye Irritation Category 1

Skin sensitizer Category 1

Specific Target Organ Toxicity -  
Single Exposure Category 3  
(Narcotic effect.)

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:**  
 Highly flammable liquid and vapor.  
 Causes serious eye damage.  
 May cause an allergic skin reaction.  
 May cause drowsiness or dizziness.

**Precautionary Statements**

**Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label). IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. 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/doctor. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. 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):** Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

**3. Composition/information on ingredients**

**Chemical name:**  
 Acetylenic diol in solvent  
**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	50%

Propan-2-ol		67-63-0	50%
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\* 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

<b>General information:</b>	Remove soiled or soaked clothing immediately
<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>	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.
<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>	Keep away from sources of ignition. Take action to prevent static discharges. Vapours may form explosive mixtures with air. Cool endangered containers by water spray
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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:**

No data available.

**Methods and material for containment and cleaning up:**

Take up with absorbent material (eg sand, kieselguhr, universal 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). Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes.

**Contact avoidance measures:**

No data available.

### Storage

**Safe storage conditions:**

Keep container tightly closed in a cool, well-ventilated place. Keep away from heat. 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

Chemical Identity	Type	Exposure Limit Values		Source
Propan-2-ol	TWA	200 ppm		ACGIH (03 2016)
	STEL	400 ppm		ACGIH (03 2016)
	REL	400 ppm	980 mg/m3	NIOSH (2010)
	STEL	500 ppm	1,225 mg/m3	NIOSH (2010)
	PEL	400 ppm	980 mg/m3	OSHA Z1 (03 2016)

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

Chemical name	Parameters / Sampling Time	Exposure Limit Values	Source
Propan-2-ol	acetone Sampling time: End of shift at end of work week.	40 mg/l (Urine)	ACGIH BEI (03 2016)

**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

**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. Use skin protective preparation as preventive skin protection.

## 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>	like menthol
<b>Odor Threshold:</b>	not measured
<b>Freezing point:</b>	not measured
<b>Boiling Point:</b>	176 °F/80 °C
<b>Flammability:</b>	not measured
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Explosive limit - upper:</b>	not measured
<b>Explosive limit - lower:</b>	not measured
<b>Flash Point:</b>	66.0 °F/18.9 °C
<b>Auto-ignition temperature:</b>	> 662 °F/> 350 °C
<b>Decomposition Temperature:</b>	not measured
<b>pH:</b>	5 - 7 at 77 °F/25 °C

Concentration: 100 g/l  
 Concentration: 10 %  
 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:** 47.9 hPa at 70 °F/21 °C  
**Relative density:** not measured  
**Density:** 0.84 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**

**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:** Open flames, sparks or input of much heat  
**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.

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

**Oral**

**Product:** LD 50, Rat, > 2,000 mg/kg, The product or a component is a CNS depressant.

**Dermal**

**Product:** LD 50, Rabbit, > 2,000 mg/kg

**Inhalation**

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

**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

**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

Propan-2-ol

Ames test, OECD 471: , negative  
gene mutation test, OECD 476: , negative

**In vivo**

**Product:** No data available.

**Components:**

Propan-2-ol                      Micronucleus test, OECD 474, Intraperitoneal, Mouse, Female, Male, negative

**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 Kow)**

**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**

UN/ID/NA number : UN 1219  
Proper shipping name : Isopropanol

Class : 3  
Packing group : II  
Labels : 3  
ERG Code : 129  
Marine pollutant : no

**International Regulations**

**IATA-DGR**

UN/ID No. : UN 1219  
Proper shipping name : Isopropanol  
Class : 3  
Packing group : II  
Labels : 3  
Packing instruction (cargo aircraft) : 364  
Packing instruction (passenger aircraft) : 353  
Remarks : ERG-Code 3L

**IMDG-Code**

UN number or ID number : UN 1219  
Proper shipping name : ISOPROPANOL

Class : 3  
Packing group : II  
Labels : 3  
EmS Code : F-E, S-D  
Marine pollutant : no

**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 (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):****Chemical Identity**

RCRA Hazardous Waste No. D001

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

Flammable (gases, aerosols, liquids, or solids), Serious eye damage or eye irritation, Respiratory or Skin Sensitization, Specific target organ toxicity (single or repeated exposure), Hazards Not Otherwise Classified (HNOC)

**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="3"/>
<b>Physical Hazards</b>	<input type="text" value="0"/>
<b>PERSONAL PROTECTION</b>	<input type="text"/>

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

**Version #:** 1.3  
**Generation date:** 08/23/2024  
**Date of first report version:** 03/13/2019

**Abbreviations and acronyms:**

ACGIH: US. ACGIH Threshold Limit Values, as amended  
 ACGIH BEI: US. ACGIH. BEIs. Biological Exposure Indices, as amended  
 NIOSH/GUIDE: US. NIOSH: Pocket Guide to Chemical Hazards, as amended  
 OSHA\_TRANS: US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended  
 ACGIH / STEL: Short Term Exposure Limit (STEL):  
 ACGIH / TWA: Time Weighted Average (TWA):  
 NIOSH/GUIDE / REL: Recommended exposure limit (REL):  
 NIOSH/GUIDE / STEL: Short Term Exposure Limit (STEL):

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 - 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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