

SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: SURFYNOL® 104 A

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

Physical Hazards

Flammable liquids Category 4

Health Hazards

Acute toxicity (Inhalation) Category 4

Skin irritation Category 2

Serious Eye Damage/Eye Irritation Category 1

Skin sensitizer Category 1

Specific Target Organ Toxicity -
Single Exposure Category 3
(Respiratory system)

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Combustible liquid.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Harmful if inhaled.
May cause respiratory irritation.

Precautionary Statements

Prevention: 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. Wear protective gloves/eye protection/face protection. Wash hands thoroughly after handling. Keep away from heat/sparks/open flames. - No smoking.

Response: IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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. Store in a well-ventilated place. Keep cool. 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 (%)*
2,4,7,9-Tetramethyldec-5-yne-4,7-diol		126-86-3	50%
1-Hexanol, 2-ethyl-		104-76-7	50%

* 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:	Remove soiled or soaked clothing immediately
Inhalation:	Ensure supply of fresh air. Seek medical advice if symptoms occur.
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 and seek medical advice
Ingestion:	Thoroughly clean the mouth with water Seek medical advice if symptoms occur.
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:	Risk of serious damage to eyes. skin irritation possible
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

Specific hazards arising from the chemical:	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
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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: 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 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). Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes.

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. Use barrier skin cream.

Storage

Safe storage conditions: No data available.

Safe packaging materials: No data available.

Storage Temperature: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

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. Do not eat, drink or smoke when working. Remove soiled or soaked clothing immediately. Use barrier skin cream.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Pale yellow
Odor:	like menthol
Odor Threshold:	not measured
pH:	5.4 (50 g/l, 25 °C) in Water
Freezing point:	not measured
Boiling Point:	> 182 °C
Flash Point:	82 °C
Evaporation Rate:	not measured
Flammability (solid, gas):	not measured
Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Vapor pressure:	< 1.3 hPa (21 °C)
Vapor density (air=1):	not measured
Density:	0.87 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. acids alkalines
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.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral	
Product:	LD 50 (Rat): 4,700 mg/kg
Dermal	
Product:	No data available.
Inhalation	
Product:	LC 50 (Rat): > 20 mg/l Vapour ATEmix : 3 mg/l Dusts, mists and fumes

Repeated dose toxicity	
Product:	No data available.

Skin Corrosion/Irritation

Product name: SURFYNOL® 104 A

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), as amended:

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity**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**Other effects:** No data available.**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:**

Product name: SURFYNOL® 104 A

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 Kow)****Product:** Log Kow: not measured**Mobility in soil:**

No data available.

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

1-Hexanol, 2-ethyl-

Other adverse effects:

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 : NA 1993

Product name: SURFYNOL® 104 A

Proper shipping name : Combustible liquid, n.o.s.
(Ethyl-1-Hexanol, 2-)
Class : CBL
Packing group : III
Labels : NONE
ERG Code : 128
Marine pollutant : no
Remarks : Not regulated in packages 450 liter or less.

International Regulations**UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

Remarks : Not hazardous freight in air traffic (ICAO-TI / IATA-DGR).

IMDG-Code

Not regulated as a dangerous good

Remarks : Not classified as hazardous sea cargo (IMDG code)FOR USA ONLY: In packagings exceeding 450 L, this product must be classified, placarded, marked and shipped as Combustible Liquid to the USA.

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.

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), as amended

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
2-Pentanone, 4-methyl-	

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>
4-METHYL-2-PENTANONE

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

Flammable (gases, aerosols, liquids, or solids), Acute toxicity (any route of exposure), Skin Corrosion or Irritation, Serious eye damage or eye irritation, Respiratory or Skin Sensitization, 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

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

None present or none present in regulated quantities.

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

No ingredient requiring a warning under CA Prop 65.

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

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

US. Massachusetts RTK - Substance List

Chemical Identity

1-Hexanol, 2-ethyl-

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

1-Hexanol, 2-ethyl-

US. Rhode Island RTK

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	2
Physical Hazards	0
PERSONAL PROTECTION	

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

Issue Date: 03/05/2020

Version #: 1.1

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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