

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: SURFYNOL® CT-324
Chemical name:
Surfactant blend

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

Health Hazards

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

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
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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: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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/protective clothing/eye protection/face protection. Use personal protective equipment as required.

Response: IF ON SKIN: Wash with plenty of soap and water. 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 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 exposed or concerned: Get medical advice/attention.

Storage: 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): None.

3. Composition/information on ingredients

Chemical name:
 Surfactant blend

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-ω-hydroxy-, branched		68412-54-4	5 - <10%
2,4,7,9-Tetramethyldec-5-yne-4,7-diol		126-86-3	5 - <10%
2-butoxyethanol		111-76-2	1 - <5%
ammonia		1336-21-6	0.1 - <1%

^{*} 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:	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/effects, 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.

Specific hazards arising from the chemical: 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.

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 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:

Avoid contact with skin and eyes. Do not inhale gases/vapours/aerosols. Provide good ventilation of working area (local exhaust ventilation if necessary).

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 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
2-butoxyethanol	TWA	20 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)
	REL	5 ppm 24 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	PEL	50 ppm 240 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (03 2016)
ammonia	STEL	35 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)
	TWA	25 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)
	STEL	35 ppm 27 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	REL	25 ppm 18 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	PEL	50 ppm 35 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (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
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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 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.

9. Physical and chemical properties
Information on basic physical and chemical properties
Appearance

Physical state: liquid
Form: liquid
Color: Pale yellow
Odor: Odorless
Odor Threshold: not measured
Freezing point: not measured
Boiling Point: 212 °F/100 °C
Flammability: not measured

Upper/lower limit on flammability or explosive limits

Explosive limit - upper: not measured
Explosive limit - lower: not measured

Flash Point: > 200.01 °F/> 93.34 °C

Self Ignition Temperature: not measured

Decomposition Temperature: not measured

pH: not measured

Viscosity

Dynamic viscosity: not measured

Kinematic viscosity: not measured

Flow Time: Not applicable

Solubility(ies)

Product name: SURFYNOL® CT-324

Solubility in Water:	not measured
Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	26.6 hPa (70 °F/21 °C)
Relative density:	not measured
Density:	1.05 g/cm ³ (70 °F/21 °C)
Bulk density:	Not applicable
Relative vapor density:	not measured
Particle characteristics	
Particle Size Distribution:	Not applicable
Specific surface area:	Not applicable
Surface charge/Zeta potential:	Not applicable
Assessment:	Not applicable
Shape:	Not applicable
Crystallinity:	Not applicable
Surface treatment:	Not applicable

Other information

Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Minimum ignition temperature:	not measured
Metal Corrosion:	Does not corrode metal.
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.
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.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)****Oral****Product:** LD 50 (Rat): > 2,000 mg/kg (estimated)**Dermal****Product:** No data available.
ATEmix: 24,597.72 mg/kg**Inhalation****Product:** LC 50 (Rat): > 20 mg/l Dusts, mists and fumes
ATEmix: 682.42 mg/l Vapour**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 1910.1001-1050), 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.

Product name: SURFYNOL® CT-324

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: No data available.

Components:

2,4,7,9-Tetramethyldec-5-yne-4,7-diol	EC 50 (Algae (<i>Pseudokirchneriella subcapitata</i>), 72 h): 15 mg/l (OECD 201)
2-butoxyethanol	ErC50 (Algae (<i>Pseudokirchneriella subcapitata</i>), 72 h): 82 mg/l (OECD 201)
	EC 50 (Algae (<i>Pseudokirchneriella subcapitata</i>), 72 h): 1,840 mg/l (OECD 201)
	EC 50 (Algae (<i>Pseudokirchneriella subcapitata</i>), 72 h): 911 mg/l (OECD 201)
ammonia	EC 50 (<i>Chlorella vulgaris</i> (Fresh water algae), 18 d): 2,700 mg/l

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)
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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.

Components:

2-butoxyethanol	NOEC (Algae (<i>Pseudokirchneriella subcapitata</i>), 72 h): 88 mg/l (OECD 201)
	NOEC (Algae (<i>Pseudokirchneriella subcapitata</i>), 72 h): 286 mg/l (OECD 201)

Toxicity to microorganisms
Product: No data available.

Persistence and Degradability
Biodegradation

Product name: SURFYNOL® CT-324

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:****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

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.

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>
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- ω - hydroxy-, branched	Irritant

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>
2-butoxyethanol
ammonia
2-Pentanone, 4-methyl-

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Serious eye damage or eye irritation, Respiratory or Skin Sensitization, Carcinogenicity

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

<u>Chemical Identity</u>	<u>% by weight</u>
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)- ω - hydroxy-, branched	1.0%
2-butoxyethanol	1.0%

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)

<u>Chemical Identity</u>
ammonia

US State Regulations

US. California Proposition 65



WARNING: This product can expose you to chemicals including, 2-Pentanone, 4-methyl-, which is [are] known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to www.P65Warnings.ca.gov.

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

2-butoxyethanol

US. Massachusetts RTK - Substance List

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

US. Pennsylvania RTK - Hazardous Substances
Chemical Identity

2-butoxyethanol

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	*	3
Flammability		1
Physical Hazards		0
PERSONAL PROTECTION		B

B - Safety Glasses & Gloves

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

Issue Date: 05/24/2021

Version #: 1.3

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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