

SAFETY DATA SHEET

1. Identification

Product identifier: SURFYNOL® 465

Chemical name: Ethoxylated acetylenic diols

Other means of identification

Recommended use: Industrial use

Recommended restrictions: None known.

Manufacturer/Importer/Distributor Information

Company Name : Evonik (SEA) Pte Ltd.
3 International Business Park
#07-18 Nordic European Centre
Singapore 609927

Telephone : +65 6809 6666

Emergency telephone number:

24-Hour Health : 800 101 2201
Emergency : +65 3158 1349

2. Hazard(s) identification

Classification according to GHS

Health Hazards

Acute toxicity (Inhalation - dust and mist) Category 4

Serious Eye Damage/Eye Irritation 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: Harmful if inhaled.
 Causes serious eye damage.
 Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear eye protection/face protection.

Response: 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 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.

3. Composition/information on ingredients

Chemical name:
 Ethoxylated acetylenic diols

Substances

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol		9014-85-1	>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

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 and effects, both 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.

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

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Accidental release measures: No data available.

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 Prevent product from getting into 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.

Storage
Safe storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Do not store together with oxidizing agents.

Safe packaging materials:

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
General information:

No data available.

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)

Other:

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.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Amber
Odor:	Mild
Odor Threshold:	not measured
Freezing point:	not measured
Boiling Point:	784 °F/418 °C
Flammability:	not measured

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	> 230 °F/> 110 °C
Self Ignition Temperature:	not measured
Decomposition Temperature:	not measured
pH:	7 (25 °C)

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:	0,192 hPa (68 °F/20 °C)
Relative density:	not measured
Density:	1,04 g/cm ³ (70 °F/21 °C)
Bulk density:	No data available.
Relative vapor density:	not measured

Other information

Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Minimum ignition temperature:	635 °F/335 °C

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:	None with proper storage and handling.
Incompatible Materials:	Oxidizing agents.
Hazardous Decomposition Products:	None with proper storage and handling.

11. Toxicological information

Information on toxicological effects

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 (Rabbit): 6.300 mg/kg
Components:	LD 50 (Rabbit): 6.300 mg/kg
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol	

Dermal

Product:	No data available.
Components:	No data available.
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol	

Inhalation

Product:	LC 50 (Rat, 1 h): 5,15 mg/l Dusts, mists and fumes
Components:	LC 50 (Rat, 4 h): 1,2875 mg/l Dusts, mists and fumes

Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol

LC 50 (Rat, 1 h): 5,15 mg/l Dusts, mists and fumes LC 50 (Rat, 4 h): 1,2875 mg/l Dusts, mists and fumes Vapour, No data available.

Repeated dose toxicity

Product: No data available.

Components:
 Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Skin Corrosion/Irritation

Not irritating

Product: Not irritating;

Components:
 Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol Not irritating

Serious Eye Damage/Eye Irritation

Risk of serious damage to eyes.

Product: Draize (Rabbit): Risk of serious damage to eyes.;

Components:
 Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol Draize (Rabbit): Risk of serious damage to eyes.

Respiratory or Skin Sensitization

Product: No data available.

Components:
 Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Carcinogenicity

Product: No data available.

Components:
 Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Germ Cell Mutagenicity

No data available.

In vitro

Product: No data available.

Components:
 Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

In vivo**Product:** No data available.**Components:**
Ethoxylated 2,4,7,9-
tetramethyl 5 decyn-4,7-
diol No data available.**Reproductive toxicity****Product:** No data available.**Components:**
Ethoxylated 2,4,7,9-
tetramethyl 5 decyn-4,7-
diol No data available.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Components:**
Ethoxylated 2,4,7,9-
tetramethyl 5 decyn-4,7-
diol No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Components:**
Ethoxylated 2,4,7,9-
tetramethyl 5 decyn-4,7-
diol No data available.**Aspiration Hazard****Product:** Not classified**Components:**
Ethoxylated 2,4,7,9-
tetramethyl 5 decyn-4,7-
diol 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.**Components:**
Ethoxylated 2,4,7,9-
tetramethyl 5 decyn-4,7-
diol No data available.**Aquatic Invertebrates****Product:** No data available.

Components:

Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Toxicity to Aquatic Plants

Product: EC 50 (Skeletonema costatum (marine diatom), 72 h): 93 mg/l

Components:

Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol EC 50 (Skeletonema costatum (marine diatom), 72 h): 93 mg/l

Toxicity to microorganisms

Product: No data available.

Components:

Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Components:

Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Aquatic Invertebrates

Product: No data available.

Components:

Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Toxicity to Aquatic Plants

Product: No data available.

Components:

Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Toxicity to microorganisms

Product: No data available.

Components:

Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Persistence and Degradability

Biodegradation

Product: 10 % (28 d) The product is not biodegradable.

Components:

Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol 10 % (28 d) The product is not biodegradable.

BOD/COD Ratio

Product: No data available.

Components:
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Components:
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: not measured

Components:
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Mobility in soil:

Product No data available.

Components:
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol No data available.

Product No data available.

Components:
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol 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

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: 26.03.2019

Version #: 2.2

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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