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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SURFYNOL [®] 465 SURFACTANT

Product Use Description : Surfactant

Manufacturer/Importer/Distribu

IOI

Deep South Chemial, Inc. 229 Millstone Road Broussard, LA 70518

Telephone : 1-337-837-9931

Emergency telephone number

(24h)

: 800-424-9300 USA CHEMTREC

2. HAZARDS IDENTIFICATION

GHS classification

Serious Eye Damage - Category 1

GHS label elements

Hazard pictograms/symbols



Signal Word: Danger

Hazard Statements:

H318:Causes serious eye damage.

Precautionary Statements:

Prevention : P273:Avoid release to the environment.

:Wear eye protection/face protection.



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Response : P305+P351+P338 :IF IN EYES: Rinse cautiously with water for several

minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 :Immediately call a POISON CENTRE or doctor/physician.

Disposal : P501:Disposal of contents/container to be specified in accordance with

regulations.

Hazards not otherwise classified

Severe eye irritant. Mild skin irritant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration
		(Weight)
Ethoxylated 2,4,7,9-tetramethyl 5 decyn-4,7-diol	9014-85-1	100%

Ethoxylated Acetylenic Diols.

4. FIRST AID MEASURES

General advice : Seek medical advice. If breathing has stopped or is labored, give assisted

respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

Eye contact : Rinse immediately with plenty of water also under the eyelids for at least 20

minutes. Remove contact lenses.

Skin contact : Wash off immediately with plenty of water for at least 20 minutes. Wash off with

soap and water. Immediately remove contaminated clothing, and any

extraneous chemical, if possible to do so without delay.

Ingestion : Never give anything by mouth to an unconscious person. Prevent aspiration of

vomit. Turn victim's head to the side.

Inhalation : Move to fresh air.

Most important

symptoms/effects - acuate

and delayed

: Liver disorders. Eye disease.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam.

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Carbon dioxide (CO2).

Dry chemical. Dry sand.

Limestone powder.

Specific hazards : Incomplete combustion may form carbon monoxide. Burning produces noxious

and toxic fumes. Downwind personnel must be evacuated.

Special protective equipment

for fire-fighters

: Use personal protective equipment. Wear self contained breathing apparatus

for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures : Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate

personnel to safe areas.

Environmental precautions : Construct a dike to prevent spreading.

Methods for cleaning up : Contact Deep South Chemicals Products' Emergency Response Center for advice.

Approach suspected leak areas with caution. Place in appropriate chemical waste

container.

Additional advice : Evacuate area and do not approach spilled product . If possible, stop flow of

product.

7. HANDLING AND STORAGE

Handling

Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Provide readily accessible eye wash stations and safety showers.

Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment

Respiratory protection : Not required for properly ventilated areas.

Hand protection : Neoprene gloves.



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Nitrile rubber.

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk

assessment indicates this is necessary.

Eye protection : Chemical resistant goggles must be worn.

Skin and body protection : Long sleeve shirts and trousers without cuffs.

Special instructions for protection and hygiene

: Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Light yellow.

Odor : Mild.

Odor threshold : No data available.

pH : 7

Melting point/range : No data available.

Boiling point/range : 784 °F (418 °C)

Flash point : $> 230 \, ^{\circ}\text{F} \, (> 110 \, ^{\circ}\text{C})$

Evaporation rate : No data available.

Flammability (solid, gas) : Not applicable.

Upper/lower

explosion/flammability limit

: Not applicable.

Vapor pressure : 0.14 mmHg at 70 °F (21 °C)

Water solubility : No data available.

Relative vapor density : Not applicable.

Relative density : No data available.

Partition coefficient (n-

octanol/water)

: No data available.



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Auto-ignition temperature : 335 °C

Decomposition temperature : No data available.

Viscosity : No data available.

Molecular Weight : No data available.

Density : 64.925 lb/ft3 (1.04 g/cm3) at 70 °F (21 °C)

10. STABILITY AND REACTIVITY

Chemical Stability : Stable under normal conditions.

Conditions to avoid : No data available.

Materials to avoid : Reactive metals (e.g. sodium, calcium, zinc etc.).

Materials reactive with hydroxyl compounds.

Dehydrating Agents. Oxidizing agents.

Hazardous decomposition

products

: Carbon monoxide. Carbon dioxide (CO2).

Aldehydes

Flammable hydrocarbon fragments.

Heating above 65 °C in the presence of strong base can liberate flammable

hydrocarbon fragments.

Possibility of hazardous

Reactions/Reactivity

: No data available.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely routes of exposure

Effects on Eye : Severe eye irritation.

Effects on Skin : Mild skin irritation.

Inhalation Effects : Very toxic by inhalation of spray mist and/or aer osols Industrial chemicals

such as this material with acute aerosol toxicity values as shown in Section 11 would not be classified as toxic by inhalation according to US domestic and

international transport regulations.

Ingestion Effects : No data available.

Symptoms : No data available.

Acute toxicity



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Acute Oral Toxicity : LD50: 6,300 mg/kg Species: (Rat)

Inhalation : No data is available on the product itself.

Acute Dermal Toxicity : LD50 : > 2,000 mg/kg Species : Rabbit.

Method: Estimated.

Skin corrosion/irritation : Mild skin irritation.

Serious eye damage/eye

irritation

: Severe eye irritation.

Sensitization. : No data available.

Chronic toxicity or effects from long term exposures

: No data available. Carcinogenicity

Reproductive toxicity : No data is available on the product itself.

Germ cell mutagenicity : No data is available on the product itself.

Specific target organ systemic

toxicity (single exposure)

: No data available.

Specific target organ systemic

toxicity (repeated exposure)

: No data available.

Aspiration hazard : No data available.

Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Subchronic exposure of this material or component in test animals has caused abnormalities in the following organ(s):, Liver., Component has caused fertility effects in laboratory animals; however, the effects are not sufficient to characterize the materials as a reproductive toxin. Liver disorders., Eye disease.

Adult rats were orally administered this material or a component in the diet at the following concentrations 0, 500, 1000, and 2000mg/kg/day. The offspring were then treated at the same dose levels as their parents for 91 days. Litter size at birth and mean weanling weights were decreased in the 2000 mg/kg/day group. After 91 day on test, a significant increase in liver weights with accompanying microscopic changes was observed in both sexes in the high-dose group. The oral NOEL was 1000 mg/kg/day for both the reproduction and repeated dose phases of this experiment., Rats were orally administered this material or a component in the diet for 28 days at concentrations of 0, 750, 1500, 3000, and 6000 ppm. No adverse effects were seen at any of the dose levels. The oral No-Observed-Effect-Level (NOEL) was 6000 ppm., This material or a component was administered orally to dogs in gelatin capsules at dose levels of 0, 200, 400, and 600 mg/kg/day for 91 days. All dogs survived for the duration of this study with few clinical signs. The only adverse effect observed was an increase in liver weights at 400 and 600 mg/kg/day.



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12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity : EC50 (72 h) : 93 mg/l Species : Skeletonema costatum.

Toxicity to other organisms : No data available.

Persistence and degradability

Biodegradability : No data is available on the product itself.

Mobility : No data available.

Bioaccumulation : No data is available on the product itself.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused

products

: Contact supplier if guidance is required.

Contaminated packaging : Dispose of container and unused contents in accordance with federal, state,

and local requirements.

14. TRANSPORT INFORMATION

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

TDG

Not dangerous goods



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Further Information

Not dangerous goods The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact an Air Products customer service representative.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

Country	Regulatory list	Notification	
USA	TSCA	Included on Inventory.	
EU	EINECS	Included on EINECS inventory or polymer	
		substance, monomers included on	
		EINECS inventory or no longer polymer.	
Canada	DSL	Included on Inventory.	
Australia	AICS	Included on Inventory.	
Japan	ENCS	Included on Inventory.	
South Korea	ECL	Included on Inventory.	
China	SEPA	Included on Inventory.	
Philippines	PICCS	Included on Inventory.	



EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level None

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

16. OTHER INFORMATION

HMIS Rating

Health : 2 Flammability : 1 Physical hazard : 0

Prepared by : Deep South Chemical, Inc.

Telephone : 1-337-837-9931

