

Safety Data Sheet
ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product name** : ECOSURF™ EH-9 Surfactant**Recommended use of the chemical and restrictions on use**

Recommended use : Surfactant

Supplier or Repackaging Details**Company** : Univar Solutions USA
Address : 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)**Manufactured By** : The Dow Chemical Company**Emergency telephone number:**

Transport North America: CHEMTREC (1-800-424-9300)

CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Eye irritation : Category 2A

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.
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.
P337 + P313 If eye irritation persists: Get medical advice/ attention.**Other hazards**

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Safety Data Sheet

ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

Hazardous components

CAS-No.	Chemical name	Weight percent
64366-70-7	Oxirane, 2-methyl-, polymer with oxirane, mono(2-ethylhexyl) ether	90 - 100

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and water.
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Do not induce vomiting without medical advice.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Water mist
Dry chemical
Carbon dioxide (CO₂)
Alcohol-resistant foam
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon oxides
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Safety Data Sheet**ECOSURF™ EH-9 Surfactant**

Version 1.3

Revision Date: 11/12/2023

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Safety Data Sheet

ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

Remarks	: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	: Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: colourless, yellow
Odour	: mild
Odour Threshold	: No data available
pH	: 5.0 - 7.5 @ 1 %(as aqueous solution)
Freezing Point (Pour point)	: 16 °C (61 °F)
Boiling Point ()	: Decomposition: Decomposes below the boiling point.
Flash point	: 288 °C (550 °F) Method: ASTM D 93, closed cup 244 °C (471 °F) Method: ASTM D 92, open cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: Estimated < 0.01 mmHg @ 20 °C (68 °F)
Relative vapour density	: Estimated > 1
Relative density	: Calculated 1.026 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: 1.0237 g/cm3 @ 20 °C (68 °F)
Solubility(ies)	
Water solubility	: completely soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: 51 mm2/s @ 40 °C (104 °F)

Safety Data Sheet
ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

Method: ASTM D 445

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No hazards to be specially mentioned.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Strong acids Strong bases Strong oxidizing agents

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity	: LD50 (Rat): > 2,000 mg/kg
Acute dermal toxicity	: Assessment: The substance or mixture has no acute dermal toxicity

Components:**64366-70-7:**

Acute oral toxicity	: LD50 (Rat): > 3,000 mg/kg
Acute inhalation toxicity	: Remarks: No data available
Acute dermal toxicity	: LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation**Components:****64366-70-7:**

Remarks: No data available

Serious eye damage/eye irritation**Product:**

Result: Irritating to eyes.

Components:**64366-70-7:**Species: Rabbit
Result: Irritating to eyes.

Safety Data Sheet
ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

Respiratory or skin sensitisation**Components:****64366-70-7:**

Remarks: No data available

Germ cell mutagenicity**Components:****64366-70-7:**

Germ cell mutagenicity - Assessment : mutagenicity classification is not possible

Carcinogenicity**Components:****64366-70-7:**

Carcinogenicity - Assessment : carcinogenicity classification is not possible

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity**Components:****64366-70-7:**

Reproductive toxicity - Assessment reproduction classification is not possible

Teratogenicity - Assessment : teratogenicity classification is not possible

Aspiration toxicity**Components:****64366-70-7:**

No aspiration toxicity classification

Further information**Product:**

Remarks: No data available

Safety Data Sheet
ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 36.6 mg/l
Exposure time: 48 h
- Toxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): 31.9 - 97.7 mg/l
Exposure time: 72 h

- Chronic aquatic toxicity- Assessment : This product has no known ecotoxicological effects.

Components:**64366-70-7:**

- Toxicity to fish : Remarks: No data available
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 72.1 mg/l
Exposure time: 48 h
- Toxicity to algae : Remarks: No data available
- Acute aquatic toxicity- Assessment : Harmful to aquatic life.
- Chronic aquatic toxicity- Assessment : Harmful to aquatic life with long lasting effects.

Persistence and degradability**Product:**

- Biodegradability : Remarks: Readily biodegradable

Components:**64366-70-7:**

- Biodegradability : Remarks: Not readily biodegradable.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects**Product:**

- Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufac-

Safety Data Sheet
ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

Additional ecological information : tured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**DOT (Department of Transportation):** Not regulated as a dangerous good**IATA (International Air Transport Association):** Not regulated as a dangerous good**IMDG-Code:** Not regulated as a dangerous good**SECTION 15. REGULATORY INFORMATION****WHMIS Classification** : D2B: Toxic Material Causing Other Toxic Effects**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Serious eye damage or eye irritation**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

Safety Data Sheet

ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

64366-70-7 Oxirane, 2-methyl-, polymer with oxirane, mono(2-ethylhexyl) ether

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : not determined

NZIoC : not determined

ENCS : not determined

KECI : not determined

PICCS : not determined

IECSC : not determined

Safety Data Sheet

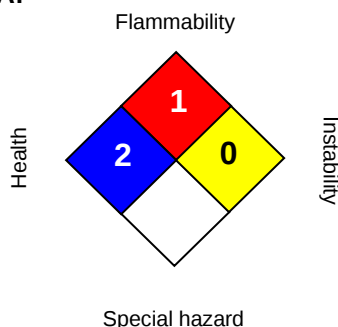
ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

SECTION 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 11/12/2023

Legacy SDS: : 000000192276

Material number:
16207936, 16171309, 16063150

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit

Safety Data Sheet

ECOSURF™ EH-9 Surfactant

Version 1.3

Revision Date: 11/12/2023

EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		