

StarSurf LMAPOx

SECTION 1. IDENTIFICATION

Product Identifier StarSurf LMAPOx
Product Family alkyl amidopropyl dimethylamine oxide
Manufacturer StarChem, LLC, 10150 Greenville Highway, Wellford, SC, 29385, EH&S Dept,
 1-800-677-3500, www.starchemglobal.com
Emergency Phone No. Chemtrec, 1-800-424-9300
SDS No. 0232

SECTION 2. HAZARD IDENTIFICATION

Classification

Acute toxicity (Oral) - Category 4; Skin irritation - Category 2; Serious eye damage - Category 1; Aquatic hazard (Acute) - Category 2; Aquatic hazard (Chronic) - Category 3

Label Elements



Signal Word:

Danger

Hazard Statement(s):

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H401 Toxic to aquatic life.
 H412 Harmful to aquatic life with long lasting effects.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P273 Avoid release to the environment.
 P280 Wear eye protection/face protection.
 P280 Wear protective gloves.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Dodecanamide, N-[3-(dimethylamino)propyl]-, N-oxide	61792-31-2	20 - <30	
Tetradecanamide, N-[3-(dimethylamino)propyl]-, N-oxide	67806-10-4	5 - <10	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

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If inhaled, remove to fresh air. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops.

Eye Contact

In case of contact, flush eyes with plenty of water for at least 15 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Call a physician immediately.

Ingestion

Rinse mouth immediately with water. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting due to aspiration hazard. Seek medical attention.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific Hazards Arising from the Product

During fire, gases hazardous to health may be formed.
Carbon oxides, nitrogen oxides.

Special Protective Equipment and Precautions for Fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Cleanup personnel must use appropriate personal protective equipment.

Environmental Precautions

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Methods and Materials for Containment and Cleaning Up

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not get this material in contact with eyes. Do not taste or swallow. Avoid contact with skin. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for Safe Storage

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Occupational exposure limits:
No exposure limits noted for ingredient(s).

Biological limit values:
No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls:
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment:

Eye/face protection:
Wear safety glasses with side shields (or goggles) and a face shield.

Hand protection:
Wear appropriate chemical resistant gloves.

Skin protection:
Wear appropriate chemical resistant clothing.

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards:
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations:
When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Light yellow liquid.
pH	6.5 - 8.5 (10% solution)
Initial Boiling Point/Range	> 212 °F
Flash Point	> 93.33 °C
Relative Density (water = 1)	~ 1
Solubility	Soluble in water

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

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Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible Materials

Strong oxidizing agents. Nitrous acid and other nitrosating agents.

Hazardous Decomposition Products

Upon decomposition, this product may yield oxides of nitrogen and ammonia, carbon dioxide, carbon monoxide and other low molecular weight hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Ingestion - Harmful if swallowed.

Inhalation - Prolonged inhalation may be harmful.

Skin contact - Causes skin irritation.

Eye contact - Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics:

Not available.

Information on toxicological effects:

Acute toxicity - Harmful if swallowed.

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LD50 Rabbit Dermal Acute > 2000 mg/kg

LD50 Rat Oral 500 - 1000 mg/kg

Skin corrosion/irritation - Causes skin irritation.

Serious eye damage/eye irritation - Causes serious eye damage.

Respiratory or skin sensitization Respiratory sensitization - Not available.

Skin sensitization - This product is not expected to cause skin sensitization.

Germ cell mutagenicity - No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -
single exposure

Not applicable.

Specific target organ toxicity -
repeated exposure

Not applicable.

Aspiration hazard Not applicable.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity Toxic to aquatic life:

Harmful to aquatic life with long lasting effects.

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Acute
Algae EC50 Algae 3.4 mg/l, 72 hours
Crustacea EC50 Daphnia 16 mg/l, 48 hours
Fish LC50 Fish 18 mg/l, 96 hours

Persistence and degradability - Readily biodegradable.

Bioaccumulative potential - No data available.

Mobility in soil - No data available.

Other adverse effects - No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

SECTION 14. TRANSPORT INFORMATION

Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

US federal regulations:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories:

Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

SARA 311/312 Hazardous chemical:

Yes.

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

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NFPA Rating	Health - 2	Flammability - 1	Instability - 0
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