SAFETY DATA SHEET

1. Identification

Product identifier: AMMONYX MCO

Other means of identification

Product code: 1926

Recommended use: Surfactant

Recommended restrictions: For industrial use only.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name: Stepan Company
Address: 22 West Frontage Road
Northfield, IL 60093
USA
Telephone: General 1-847-446-7500
Emergency phone number: Medical 1-800-228-5635
Chemtrec 1-800-424-9300
Chemtrec Int'l +1 703-527-3887

2. Hazard(s) identification

Physical hazards: Not classified.

Health hazards

Skin corrosion/irritation: Category 2
Serious eye damage/eye irritation: Category 1

Environmental hazards

Hazardous to the aquatic environment, acute hazard: Category 1
Hazardous to the aquatic environment, long-term hazard: Category 2

OSHA defined hazards: Not classified.

Label elements

Signal word: None.

Hazard statement: Causes skin irritation. Causes serious eye damage. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention: Wear protective gloves. Wear eye/face protection. Avoid release to the environment. Wash thoroughly after handling.

Response: If on skin: Wash with plenty of water. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention. 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. Take off contaminated clothing and wash before reuse. Collect spillage.

Storage: Store away from incompatible materials.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): None known.

Supplemental information: None.

3. Composition/information on ingredients

Mixtures
Chemical name | Common name and synonyms | CAS number | %
--- | --- | --- | ---
Water | 7732-18-5 | 60 - < 70
Alkyl dimethyl (C12-18) amine oxide | 68955-55-5 | 30 - < 40

4. First-aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting without advice from poison control center.

Most important symptoms/effects, acute and delayed
Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

General information
In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

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 chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up
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 product from entering drains. 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.

Environmental precautions
Never return spills to original containers for re-use.

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.

7. Handling and storage

Precautions for safe handling
Do not taste or swallow. Do not get this material in contact with eyes. Avoid contact with skin. 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, including any incompatibilities
Store in original tightly closed container.

8. Exposure controls/personal protection

Biological limit values
No biological exposure limits noted for the ingredient(s).
Ensure adequate ventilation, especially in confined areas. 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).

Skin protection
Hand protection
Wear appropriate chemical resistant gloves.

Other
Wear appropriate chemical resistant clothing. Wear protective gloves.

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.

9. Physical and chemical properties

Appearance
Physical state
Liquid.
Form
Liquid.
Color
Not available.
Odor
Not available.
Odor threshold
Not available.
pH
8 (10% aqueous)
Melting point/freezing point
50 °F (10 °C)
Initial boiling point and boiling range
212 °F (100 °C)
Flash point
> 201.0 °F (> 93.9 °C) Pensky-Martens Closed Cup
Evaporation rate
Estimated slower than ethyl ether
Flammability (solid, gas)
Not available.
Upper/lower flammability or explosive limits
Flammability limit - lower (%)
Not available.
Flammability limit - upper (%)
Not available.
Explosive limit - lower (%)
Not available.
Explosive limit - upper (%)
Not available.
Vapor pressure
Not determined or unknown
Vapor density
Estimated lighter than air
Relative density
Not available.
Solubility(ies)
Solubility (water)
Not available.
Auto-ignition temperature
Not available.
Decomposition temperature
Not available.
Viscosity
5098 cP @ 25C
Other information
Percent volatile
65 - 70 % w/w (includes water)
Specific gravity
0.96

10. Stability and reactivity

Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability
Material is stable under normal conditions.
Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.
Conditions to avoid
Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials
Strong oxidizing 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. Hydrogen chloride.

11. Toxicological information

Information on likely routes of exposure
Inhalation
Prolonged inhalation may be harmful.
Skin contact
Causes skin irritation.
Eye contact
Causes serious eye damage.
Ingestion
Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics
Not available.

Information on toxicological effects

Acute toxicity
May be harmful in contact with skin.
Skin corrosion/irritation
Causes skin irritation. Causes severe eye damage.
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.

IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens
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.

12. Ecological information

Ecotoxicity
Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

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.

13. Disposal considerations

Disposal instructions
Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
14. Transport information

DOT
Not regulated as dangerous goods.

IATA
- UN number: UN3082
- UN proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Amine Oxide)
- Transport hazard class(es):
  - Class: 9
  - Subsidiary risk: -
  - Packing group: III
- Environmental hazards: Yes
- Special precautions for user: Not available.

IMDG
- UN number: UN3082
- UN proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Amine Oxide), MARINE POLLUTANT
- Transport hazard class(es):
  - Class: 9
  - Subsidiary risk: -
  - Packing group: III
- Environmental hazards:
  - Marine pollutant: Yes
  - EmS: Not available.
- Special precautions for user: Not available.
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IATA; IMDG

Marine pollutant

15. Regulatory information

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

Toxic Substances Control Act (TSCA)
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Classified hazard categories
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
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<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
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<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
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<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
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<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory (NZIoC)</td>
<td>Yes</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
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<tr>
<td>Taiwan</td>
<td>Taiwan Inventory (TCSI)</td>
<td>Yes</td>
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<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 10-30-2014
Revision date 02-03-2020
Version # 03

HMIS® ratings
Health: 3
Flammability: 1
Physical hazard: 0

NFPA ratings
Health: 3
Flammability: 1
Instability: 0

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Revision information
This document has undergone significant changes and should be reviewed in its entirety.