1. Identification

Product identifier: Tallow amine acetate

Other means of identification

- Product code: NG-S544
- Recommended use: For Laboratory Use Only
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

- Manufacturer: Chem Service, Inc.
- Address: 660 Tower Lane, West Chester, PA 19380, United States
- Telephone: Toll Free 800-452-9994, Direct 610-692-3026
- Website: www.chemservice.com
- E-mail: info@chemservice.com
- Emergency phone number: Chemtrec US 800-424-9300, Chemtrec outside US +1 703-527-3887

2. Hazard(s) identification

Physical hazards: Not classified.

Health hazards

- Acute toxicity, oral: Category 4
- Skin corrosion/irritation: Category 1B
- Serious eye damage/eye irritation: Category 1

Environmental hazards: Hazardous to the aquatic environment, acute hazard: Category 1

OSHA defined hazards: Not classified.

Label elements

Signal word: Danger

Hazard statement: Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Very toxic to aquatic life.

Precautionary statement

Prevention: Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response: If swallowed: Call a poison center/doctor if you feel unwell. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse. Collect spillage.

Storage: Store locked up.

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

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

Supplemental information: Not applicable.

3. Composition/information on ingredients

Substances
4. First-aid measures

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

**Skin contact**
Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing 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. Call a physician or poison control center immediately.

**Ingestion**
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**Most important symptoms/effects, acute and delayed**
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**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**
Use water spray to cool unopened containers.

**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. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
Stop the flow of material, if this is without risk. Collect spillage. Prevent product from entering drains. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

**Environmental precautions**
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 get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Do not get this material on 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 locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

**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.

Skin protection
- Hand protection: Wear appropriate chemical resistant gloves.
- Other: 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.

9. Physical and chemical properties

Appearance
- Physical state: Solid.
- Form: Crystalline Solid
- Color: Yellow
- Odor: Not available.
- Odor threshold: Not available.
- pH: Not available.
- Melting point/freezing point: 131 °F (55 °C)
- Initial boiling point and boiling range: Not available.
- Flash point: Not available.
- Evaporation rate: Not available.
- 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 available.
- Vapor density: Not available.
- Relative density: Not available.

Solubility(ies)
- Solubility (water): Insoluble
- Partition coefficient (n-octanol/water): Not available.
- Auto-ignition temperature: Not available.
- Decomposition temperature: Not available.
- Viscosity: Not available.

Other information
- Density: 1.845

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: Contact with incompatible materials.

Incompatible materials: Strong oxidizing agents.
11. Toxicological information

11.1 Information on likely routes of exposure

Ingestion: Causes digestive tract burns. Harmful if swallowed.

Inhalation: May cause irritation to the respiratory system.

Skin contact: Causes severe skin burns.

Eye contact: Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics:
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

11.2 Information on toxicological effects

Acute toxicity: Harmful if swallowed.

Skin corrosion/irritation: Causes severe skin burns and 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.

Not listed.

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

Specific target organ toxicity - single exposure:
Not classified.

Specific target organ toxicity - repeated exposure:
Not classified.

Aspiration hazard:
Not available.

12. Ecological information

Ecotoxicity: Very toxic to aquatic life.

Persistence and degradability:
No data is available on the degradability of this product.

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:
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations:
Dispose in accordance with all applicable 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:

UN number: UN1759
UN proper shipping name: Corrosive solids, n.o.s., MARINE POLLUTANT
Transport hazard class(es)
Class 8
Subsidiary risk -
Label(s) 8
Packing group II

Environmental hazards
Marine pollutant Yes

Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

Special provisions
128, IB8, IP2, IP4, T3, TP33

Packaging exceptions
154

Packaging non bulk
212

Packaging bulk
240

IATA
UN number UN1759
UN proper shipping name Corrosive solid, n.o.s.

Transport hazard class(es)
Class 8
Subsidiary risk -
Packing group II

Environmental hazards No.

ERG Code 8L

Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

Other information
Passenger and cargo aircraft
Allowed.

Cargo aircraft only
Allowed.

IMDG
UN number UN1759
UN proper shipping name CORROSIVE SOLID, N.O.S., MARINE POLLUTANT

Transport hazard class(es)
Class 8
Subsidiary risk -
Packing group II

Environmental hazards
Marine pollutant Yes

EmS F-A, S-B

Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

Not applicable.

Transport in bulk according to
Annex II of MARPOL 73/78 and the IBC Code

DOT

IATA; IMDG

Material name: Tallow amine acetate

18964    Version #: 02    Revision date: 11-17-2014    Issue date: 11-17-2014
15. Regulatory information

**US federal regulations**

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

All components are on the U.S. EPA TSCA Inventory List.

- **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.

  - Not listed.

**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 302 Extremely hazardous substance**
  - Not listed.

- **SARA 311/312 Hazardous chemical**
  - Yes

- **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.

**US state regulations**

- **US. Massachusetts RTK - Substance List**
  - Not regulated.

- **US. New Jersey Worker and Community Right-to-Know Act**
  - Not regulated.

- **US. Pennsylvania RTK - Hazardous Substances**
  - Not regulated.

- **US. Rhode Island RTK**
  - Not regulated.

- **US. California Proposition 65**
  - California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**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>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<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

<table>
<thead>
<tr>
<th>Issue date</th>
<th>11-17-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>11-17-2014</td>
</tr>
<tr>
<td>Version #</td>
<td>02</td>
</tr>
<tr>
<td>NFPA ratings</td>
<td></td>
</tr>
<tr>
<td>Health:</td>
<td>3</td>
</tr>
<tr>
<td>Flammability:</td>
<td>0</td>
</tr>
<tr>
<td>Instability:</td>
<td>0</td>
</tr>
</tbody>
</table>

Disclaimer

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.

This Safety Data Sheet (SDS) is intended only for use with Chem Service, Inc. products and should not be relied on for use with materials from any other supplier even if the chemical name(s) on the product are identical! Whenever using an SDS for a solution or mixture the user should refer to the SDS for every component of the solution or mixture. Chem Service warrants that this SDS is based upon the most current information available to Chem Service at the time it was last revised. THIS WARRANTY IS EXCLUSIVE, AND CHEM SERVICE, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. This SDS is provided gratis and CHEM SERVICE, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES.

Copyright © 2000-2014 Chem Service, Inc. All rights reserved except that this SDS may be printed for the use of a customer or prospective customer of Chem Service, Inc provided the entire SDS is printed. The SDS may not be placed in any database or otherwise stored or distributed in electronic or any other form.

This product is furnished FOR LABORATORY USE ONLY.