MATERIAL SAFETY DATA SHEET

Chem International, Inc.

1. Chemical Product and Company Identification

Product Name .....DISTILLED TALLOW AMINE
Product Description.....Tallow Amine, Distilled
Chemical Formula.....RNH2

Chem International, Inc.
P.O. Box 5501
Greenville, SC 29606

Emergency Telephone Numbers
Transportation:
CHEMTREC 1-800-424-9300
(703-527-3387 Outside United States)
Information:
Chem International, Inc. – 864-458-7868

2. Composition/Information on Ingredients

Principle Components	CAS#	Percentage
Tallow alkyl amines	61790-33-8	100

3. Hazards Identification

Emergency Overview:
Danger! Corrosive: Causes eye, skin, and mucous membrane burns.
Tan solid, amine odor.
Molten material may cause thermal burns.
Spills are slippery, may cause falls.

Potential Health Effects:
Corrosive (Eyes, Skin, Mucous Membranes)

Routes of Exposure:
Contact, Inhalation, Ingestion

Target Organ Effects:

Eyes: Causes eye burns. Contact with product at elevated temperatures can result in thermal burns.

Skin: Causes skin burns. Contact with product at elevated temperatures can result in thermal burns.

Ingestion: Can burn mouth, throat, and stomach.

Inhalation: Inhalation of vapors or mists may cause damage to mucous membranes or severe irritation of respiratory passages.

Carcinogenicity

NTP .....Not listed.
IARC.....Not listed.
OSHA .....Not listed.

4. First Aid Measures

Eye Contact
Immediately flush eyes with water for at least 15 minutes. Do not let victim rub eyes. Seek medical attention immediately.

Skin Contact
Immediately wash skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention. Contaminated clothing should be discarded in a manner which limits further exposure.
If molten material contacts skin, cool rapidly with cold water. Do not attempt to peel from skin. Obtain medical attention for thermal burns.

Ingestion
If swallowed, do **NOT** induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Inhalation
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

5. Fire Fighting Measures

Flammable Properties

Flash Point (°F/°C) .....:	<300°F/148.88°C
Test Method .....:	Pensky-Martens Closed Cup
Flammable Limits (Percent by Volume)	
Lower Explosion Limit .....:	Not Known
Upper Explosion Limit .....:	Not Known
Flammability Classification.....:	Not Classified
(As per 29 CFR 1910.1200)	

Extinguishing Media
Use water spray, dry chemical, carbon dioxide, or foam extinguishing agents. Direct application of high pressure water streams may scatter burning material.

Hazardous Products of Combustion
Thermal decomposition products may include oxides of carbon and nitrogen and hydrogen cyanide.

Fire Fighting Instructions
As in any fire, prevent human exposure to fire, smoke, fumes, or products of combustion. Evacuate non-essential personnel from the fire area.

Fire fighters should wear full protective gear including self-contained breathing apparatus (SCBA) with full face shield operated in positive pressure mode, and full protective clothing.

Closed containers may swell and rupture when exposed to extreme heat. Water spray or fog may be used to cool containers. Avoid spraying of water directly into containers of burning material as frothing may result.

Water runoff may cause environmental damage. Dike and collect water used to fight fires. Do not allow contaminated water to enter waterways.

Fire and Explosion Hazards
This product is not defined as flammable or combustible. However, under fire conditions it may support combustion and decompose to give off toxic gases such as carbon monoxide, carbon dioxide and nitrogen oxides. Under non-ideal oxidizing conditions, incomplete combustion may produce hydrogen cyanide. This product is not sensitive to static discharge.

6. Accidental Release Measures

Personal Precautions
Individuals involved in clean up activities must use appropriate protective equipment as listed in Section 8. This material forms slippery surfaces on floors, posing an accident risk.

Environmental Precautions
If material is released into the environment (air, land, water - via sewage system), the user should determine whether spill must be reported to appropriate local, state, and/or federal authorities.

Spill Response Procedures
Isolate spill area and restrict non-essential personnel from area. All personnel involved in spill cleanup should follow good industrial hygiene practices. Use adequate ventilation and/or wear a NIOSH-approved organic vapor respirator with dust, mist, and fume filter to minimize inhalation exposure. Stop source of spill if this is possible without being injured. If the material is in a liquid phase, small spills should be absorbed with a suitable, inert material (e.g., sand or earth). Remove the absorbed material and place in an appropriate chemical waste container for disposal. Flush the spill area with detergent and water. Large spills should be diked to prevent spreading. Pump spilled material to salvage according to a predetermined plan. Remove residual material and flush spill area with detergent and water.

7. Handling and Storage

Handling
Do not breath vapors or mists.
Avoid contact with eyes, skin, and clothing.
Wear protective equipment when handling this product to avoid eye and skin contact.
Wash thoroughly after handling.
Emptied containers may retain product residues. Follow all warnings and precautions even after container is emptied.

Storage
Store away from foodstuffs or animal feed.
Containers should be stored in a cool, dry, well-ventilated area away from acidic or oxidizing materials.
MAXIMUM STORAGE TEMPERATURE – 120° F/48.88^{o} C
Keep container closed.
Empty containers may retain product residue, precautions apply to empty containers.

8. Exposure Controls/Personal Protection

Engineering Controls:
Good general ventilation should be sufficient to control airborne levels.

Personal Protective Equipment:

Eye/Face - Because eye contact with this product may cause severe and possibly permanent damage, chemical goggles and/or a full face shield must be worn whenever handling this product.

Respiratory – If use conditions (e.g., elevated temperature) generate vapors or mist, use NIOSH-approved organic vapor/acid gas respirator with dust, mist and fume filter to reduce potential for inhalation exposure. When exposure potential necessitates a higher level of protection, use a NIOSH-approved, positive-pressure/pressure-demand, air-supplied respirator. Respirator cartridges or canisters must be changed frequently (following each use or at the end of the workshift) to assure break-through exposure does not occur.

Skin/Body – It is essential that skin contact with this product be prevented through the use of impervious clothing, gloves, and footwear selected with regard for use condition exposure potential. Protective equipment made of neoprene or nitrile rubber is recommended.

Other Precautions - Safety shower, with quick opening valves which stay open, and eye wash station should be located in exposure area. Reduce exposure by proper use of personal protective equipment. Wash hands and face before eating, drinking, or smoking. Long sleeved clothing may be used to minimize skin contact.

Occupational Exposure Limits
No exposure limits established for this product, or individual components.

9. Physical and Chemical Properties

Appearance	Solid 57F
Odor Threshold	Not determined
Specific gravity	0.795 @60C
Solubility (in water)	Insoluble
pH	9-10.5 @ 5% in H_2O
Vapor pressure (mmhg)	No information
Vapor density (air = 1)	No information
Boiling point (°F/°C)	No information
Percent volatile	<1%
Evaporation rate	<1

10. Stability and Reactivity

Conditions to Avoid:

Stability	This product is stable at ambient temperature and atmospheric pressures. It is not self-reactive.
Conditions to Avoid	High temperatures, Strong acids and oxidizers.
Materials to Avoid	Avoid contact with strong oxidizers and strong acids.
Hazardous Decomposition Products	Oxides of carbon and nitrogen may be emitted if product burns. This material is expected to be thermally stable in the absence of oxygen or air to temperatures of 350°F.
Hazardous Polymerization	Hazardous polymerization is not expected to occur.

11. Toxicological Information

There is no toxicological data available on the product.

12. Ecological Information

There is no ecological data available on the product.

13. Disposal Considerations

As originally offered, this product if disposed of, is not considered a hazardous waste under current Resource Conservation and Recovery Act (RCRA) regulations (40CFR 261). State and local regulations should also be consulted regarding proper disposal.

14. Transport Information

Land

Department of Transportation (DOT)
UN3259, Amines, solid, corrosive, n.o.s., (tallow amine), 8, III

Air

International Air Transport Association (IATA)
UN3259, Amines, solid, corrosive, n.o.s., (tallow amine), 8, III

Sea

International Maritime Organization (IMO)
UN3259, Amines, solid, corrosive, n.o.s., (tallow amine), 8, III

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15. Regulatory Information

U.S. Federal Regulations:

Toxic Substances Control Act (TSCA) Information
The component(s) of this product are listed on the TSCA Chemical Substances Inventory.

Superfund Amendments and Reauthorization Act (SARA Title III)
Section 311/312 Hazard Category Immediate Health Hazard.

Section 313 Listed Chemical Components

Chemical Name or Category.....:	None
CAS#.....:	NA
Concentration.....:	NA

International Regulations:

Canadian Environmental Protection Act (CEPA)
Listed in the Domestic Substance List

European Inventory of Existing Commercial Chemical Substances (EINECS)
Exempt as polymer

Japanese List of Existing and New Chemical Substances (as regulated by the Ministry of International

Trade and Industry - MITI)

No Information

Australian Inventory of Chemical Substances (AICS)

No Information

European Communities (EC) Classification

Hazard symbol(s) .....:	C (Corrosive)
Risk phrases .....:	R34 - Causes burns.
.....	R36/37/38 - Irritating to eyes, respiratory system and skin.
Safety phrases .....:	S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
.....	S28 - After contact with skin, wash immediately with plenty of 2 - 3% acetic acid solution.

16. Other Information

MSDS Revision Status:

MSDS Date .....:	February 24, 2010
Last Revision Date .....:	February 24, 2010
Reason for Revision .....:	Date Revision Only

Freight Classification (National Motor Freight Classification):

Organic Fatty Amine Compounds, Item 144790, Class 65

Hazardous Materials Information System (HMIS) Rating:

Health .....:	3
Reactivity .....:	0
Flammability .....:	1