MATERIAL SAFETY DATA SHEET

Chem International, Inc.

1. Chemical Product and Company Identification

Product Name ..... Hexadecyl Amine
Product Description ..... 1-Aminohexadecane; Palmitylamine

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
1-Hexadecanamine	143-27-1	98

3. Hazards Identification

Emergency Overview: Danger! Corrosive: Causes eye, skin, and mucous membrane burns. White solid, amine odor. Harmful if swallowed. Toxic to aquatic organisms. 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, occasionally lifting the upper and lower eyelids. Remove contact lenses if present. Do not let victim rub eyes. Check for and remove any contact lenses. Seek medical attention immediately.

Skin Contact:
Immediately flush skin with 0.5% acetic acid solution, if available, then rinse with plenty of water while removing contaminated clothing and shoes. Get medical attention. Contaminated clothing should be discarded in a manner which limits further exposure.

Ingestion:
If swallowed, do **NOT** induce vomiting. Give victim one or two glass of water. 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.

Medical Conditions Aggravated by Overexposure:
Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce respiratory irritation or damage to lungs. Repeated exposure of dust to eyes at a low level can produce eye irritation.

5. Fire Fighting Measures

Flammable Properties:

Flash Point (°F/°C)	:	302°F/150°C
Test Method	:	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 dry chemical powder for small fires. Use water spray, fog or foam for large fires. Do not use water jet.

Hazardous Products of Combustion:
Oxides of carbon, nitrogen; smoke, and fumes.

Fire Fighting Instructions:
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.

May be combustible at high temperatures. Closed containers may swell and rupture when exposed to extreme heat.

Water runoff may cause environmental damage. Dike and collect water used to fight fires.

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:
Confine spill by diking with sand, earth, or inert absorbent material. Absorb onto suitable material (sand, vermiculite, etc.), then shovel into suitable container for disposal.

7. Handling and Storage

Handling:
Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Use only with adequate ventilation.

Storage: Keep container closed. Store in well-ventilated area. Empty containers may retain product residue, precautions apply to empty container. .....

8. Exposure Controls/Personal Protection

Engineering Controls:
Ventilation is normally required when handling or using this product. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protective Equipment:

Eye/Face - Wear splash goggles and a face shield.

Respiratory –A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister should be worn if respiratory protection is required. When using respirator cartridges or canisters, they must be changed frequently (following each use or at the end of the work shift) to assure breakthrough exposure does not occur.

Skin/Body – Skin contact with the product should be prevented through the use of suitable clothing, gloves and footwear selected with regard for use condition exposure potential. Use neoprene or nitrile rubber gloves.

Other Precautions - Safety shower 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.

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

9. Physical and Chemical Properties

Physical state .....:	Solid
Color.....:	White
Odor .....:	Ammoniacal
Specific gravity (water = 1.0) .....:	.079
Solubility (in water) .....:	Slight

Solubility	:	No information
pH	:	No information
Vapor pressure (mmhg)	:	0.01kPa (0.1 mmHg) (at 20°C)
Vapor density (air = 1)	:	0.111 (Air =1)
Boiling point (°F/°C)	:	611.6°F/322°C

10. Stability and Reactivity

Conditions to Avoid:

Stability	:	Stable
Conditions to Avoid	:	High temperatures
Materials to Avoid	:	Oxidizing agents
Hazardous Decomposition Products	:	Oxides of carbon and nitrogen may be emitted if product burns
Hazardous Polymerization	:	Will not occur

11. Toxicological Information

LD_{50} (rat-oral) = 1950 mg/kg (based on similar materials)

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 US-Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 261). State and local regulations should also be consulted regarding proper disposal.

14. Transport Information

Land

Department of Transportation (DOT)

UN3263, corrosive solid, basic, organic, N.O.S., (hexadecyl amine), 8, PG III

Air

International Air Transport Association (IATA)

UN3263, corrosive solid, basic, organic, N.O.S., (hexadecyl amine), 8, PG III

Sea

International Maritime Organization (IMO)

UN3263, corrosive solid, basic, organic, N.O.S., (hexadecyl amine), 8, PG III; IMDG Code EmS F-A, S-B; Amdt. 33-06

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)

Listed

Japanese List of Existing and New Chemical Substances (as regulated by the Ministry of International Trade and Industry - MITI)

Listed

Australian Inventory of Chemical Substances (AICS)

Listed

Korean Existing Chemical List (ECL)

Listed

Philippines Inventory of Chemicals and Chemical Substances

Listed

China Inventory of Existing Chemical Substances

Listed

European Communities (EC) Classification

Hazard symbol(s)	:	C: Corrosive
		N: Dangerous for the environment.
Risk phrases	:	R22: Harmful if swallowed.
		R35: Causes severe burns.
		R41: Risk of serious damage to eyes.
		R50/53: Very toxic for aquatic organisms, contains substances which are dangerous for the aquatic environment.
Safety phrases	:	S26: In case of contact with eyes, wash carefully with 1-3% citric acid or with 0.5-1% acetic acid, see an ophthalmologist.
		S28: In case of contact with skin, wash immediately with plenty of 1-3% citric acid.
		S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
		S45: In case of accident or if you feel unwell, seek medical advice immediately.
		S57: Use appropriate containment to avoid environmental contamination.

16. Other Information

MSDS Revision Status:

MSDS Date ..... :	August 8, 2008
Last Revision Date ..... :	January 30, 2012
Reason for Revision .... :	Date Revision Only
Prepared by..... :	C. R. Patterson

Freight Classification (National Motor Freight Classification):

Corrosive Materials, Group B, Item 44157-C, Sub 4, Class 70

Hazardous Materials Information System (HMIS) Rating:

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