



MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: 02/23/00

This MSDS complies with OSHA's Hazard Communication Standard CFR 1910.1200 and OSHA Form 174.

N/A SIGNIFIES NON-APPLICABLE

IDENTITY AND SUPPLIERS INFORMATION

PRODUCT NAME: **ADENA 3808** CHEMICAL FAMILY:
PRODUCT NUMBER: AD3808 FORMULA: PROPRIETARY
SUPPLIER'S NAME: ADENA TECHNOLOGIES PHONE NUMBER: (888) 247-2312
SUPPLIER'S ADDRESS: 101 Technology Lane EMERGENCY NO.: (800) 255-3924
Export, PA 15632
PROPER SHIPPING NAME: CONSUMER COMMODITY (ORM-D)

NFPA HAZARDOUS MATERIALS IDENTIFICATION SYSTEM	RATING
HEALTH	2
FLAMMABILITY	0
REACTIVITY	0
MAX PERSONAL PROTECTION	- -

SECTION 1 - INGREDIENT IDENTIFICATION AND INFORMATION

CHEMICAL NAME	CARC.	CAS NO.	WT %	SEC. 313	PEL	TWA-TLV	STEL-TLV
Ammonia	No	7664-41-7	<8	Yes	25ppm	25ppm	

SECTION 2 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT: ND
VAPOR PRESSURE : ND
VAPOR DENSITY: ND
SOLUBILITY IN WATER: Complete
SPECIFIC GRAVITY @20°C: 0.971
pH RANGE: 10.2
EVAPORATION RATE (Water=1) : >1
VOLATILE RATE: 100%
PHYSICAL DESCRIPTION: Water white liquid with a strong ammonia odor.

SECTION 3 - FIRE/EXPLOSION HAZARD DATA

AUTO IGNITION TEMP: N/A
FLASH POINT: N/A
FLAMMABILITY LIMITS: N/A
EXTINGUISHER MEDIA: Not combustible
HAZARDOUS PRODUCTS OF COMBUSTION: N/A
EXPLOSIVE LIMITS: N/A
SPECIAL FIRE FIGHTING PROCEDURES: Wear normal fire fighting equipment with self-contained breathing apparatus. Cool drums exposed to fire to prevent steam rupture.

SECTION 4 - REACTIVITY HAZARD DATA

STABILITY: Stable
INCOMPATIBILITY: Strong acids, strong oxidizers, and non-ferrous metals.
CONDITIONS TO AVOID: Contamination
HAZARDOUS DECOMPOSITION PRODUCTS: Ammonia gas, oxides of nitrogen.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 5 - HEALTH HAZARD DATA AND FIRST AID

PRIMARY ROUTES OF ENTRY:

SKIN: Vapors and liquid are corrosive to skin resulting in chemical burns. Prolonged contact may cause severe damage.
EYES: Vapors are severely irritating. Liquid is corrosive to eyes. Brief contact may cause severe damage.
INGESTION: Material is extremely corrosive to mouth, throat and gastrointestinal system. Ingestion of even small quantities may result in death.
INHALATION: Vapors and mists are extremely irritating and corrosive to respiratory system.

FIRST AID PROCEDURES:

SKIN: Remove contaminated clothing and flush exposed skin with soap and water. If irritation persists or develops, get medical attention. Launder contaminated clothing before reuse.
EYES: Immediately flush with large amounts of water for 15 minutes and get medical attention.
INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately. Never give anything by mouth to an unconscious person.
INHALATION: Move to fresh air. Aid in breathing if necessary and get medical attention.

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

RESPIRATORY PROTECTION: NIOSH/MSHA approved can or cartridge respirator for gas and vapor as needed to maintain PEL.
VENTILATION: Local and/or mechanical exhaust to maintain exposure below PEL.
PROTECTIVE CLOTHING: Neoprene gloves, apron, boots – as necessary to prevent skin contact.
EYE PROTECTION: Chemical goggles.
OTHER PRECAUTIONS: Safety shower and eyewash fountains should be easily accessible.

SECTION 7 – PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED: Avoid skin contact. Carefully neutralize with dilute hydrochloric acid. Absorb with sand or inert material and place in suitable container for disposal. Flush residues with large amounts of water to sanitary sewer.
WASTE DISPOSAL METHODS: Dispose of in accordance with all applicable Federal, State, and Local regulations.
PRECAUTION IN STORAGE AND HANDLING: Empty containers may contain residuals. Thoroughly clean then offer for recycling, reuse, or disposal in accordance with governmental regulations.

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without any warranty or guarantee of any kind.