



# 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 4235** CHEMICAL FAMILY:  
PRODUCT NUMBER: AD4235 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  
SHIPPING NAME: CONSUMER COMMODITY (ORM-D)

NFPA HAZARDOUS MATERIALS IDENTIFICATION SYSTEM	RATING
HEALTH	1
FLAMMABILITY	2
REACTIVITY	0
MAX PERSONAL PROTECTION	- -

## SECTION 1 - INGREDIENT IDENTIFICATION AND INFORMATION

CHEMICAL NAME	CARC.	CAS NO.	WT %	SEC. 313	PEL	TWA-TLV	STEL-TLV
N-Ethyl-N-Hydroxyethanamine	No	3710-84-7	<30	No	Not Established	Not Established	

## SECTION 2 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT: ND  
VAPOR PRESSURE: ND  
VAPOR DENSITY: >1  
SOLUBILITY IN WATER: Complete  
SPECIFIC GRAVITY @20°C: 1.002  
pH RANGE: 9.1  
EVAPORATION RATE (Water=1): < 1  
VOLATILE RATE: 100%  
PHYSICAL DESCRIPTION: Colorless to light straw liquid with amine odor.

## SECTION 3 - FIRE/EXPLOSION HAZARD DATA

AUTO IGNITION TEMP: ND  
FLASH POINT: 150°F (66°C)  
FLAMMABILITY LIMITS: ND  
EXTINGUISHER MEDIA: Water fog or spray, carbon dioxide, dry chemical, alcohol foam, foam.  
HAZARDOUS PRODUCTS OF COMBUSTION: N/A  
SPECIAL FIRE FIGHTING PROCEDURES: Cool drums exposed to heat or fire to prevent steam rupture.

## SECTION 4 - REACTIVITY HAZARD DATA

STABILITY: Stable  
INCOMPATIBILITY: Strong oxidizers.  
CONDITIONS TO AVOID: Contamination, temperatures above 100°F (38°C).  
HAZARDOUS DECOMPOSITION PRODUCTS: Diethylamine, carbon monoxide, nitrous oxides.  
HAZARDOUS POLYMERIZATION: Will not occur.

## SECTION 5 - HEALTH HAZARD DATA AND FIRST AID

PRIMARY ROUTES OF ENTRY:	FIRST AID PROCEDURES:
SKIN: May cause irritation upon contact.	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: May cause irritation upon contact.	EYES: Immediately flush with large amounts of water for 15 minutes and get medical attention.
INHALATION: May cause irritation.	INHALATION: Move to fresh air. Aid in breathing, if necessary, and get medical attention.
INGESTION: May cause irritation, gastrointestinal upset.	INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately. Never give anything by mouth to an unconscious person.

## 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. Keep upwind. Eliminate ignition sources. Absorb with sand or inert material and place in suitable container for proper disposal.  
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.