



# MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: 05/12/10

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 3444	CHEMICAL FAMILY:	Internal Boiler Condensate Treatment	<table><tr><th>HMIS HAZARDOUS MATERIALS IDENTIFICATION SYSTEM</th><th>RATING</th></tr><tr><td>HEALTH</td><td>2</td></tr><tr><td>FLAMMABILITY</td><td>0</td></tr><tr><td>REACTIVITY</td><td>1</td></tr><tr><td>MAX PERSONAL PROTECTION</td><td>- -</td></tr></table>	HMIS HAZARDOUS MATERIALS IDENTIFICATION SYSTEM	RATING	HEALTH	2	FLAMMABILITY	0	REACTIVITY	1	MAX PERSONAL PROTECTION	- -
HMIS HAZARDOUS MATERIALS IDENTIFICATION SYSTEM	RATING													
HEALTH	2													
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PRODUCT NUMBER:	AD3444	FORMULA:	PROPRIETARY											
SUPPLIER'S NAME:	ADENA TECHNOLOGIES	PHONE NUMBER:	(888) 247-2312											
SUPPLIER'S ADDRESS:	101 Technology Lane Export, PA 15632	EMERGENCY NO.:	(800) 255-3924											
		DATE PREPARED:	06/19/07											
PROPER SHIPPING NAME:	CONSUMER COMMODITY (ORM-D)													

## SECTION 1 - INGREDIENT IDENTIFICATION AND INFORMATION

CHEMICAL NAME	CARC.	CAS NO.	WT %	SEC.313	PEL	TWA-TLV	STEL-TLV
Morpholine	No	110-91-8	<15	No	20 ppm	20 ppm	
Cyclohexylamine	No	108-91-8	<15	No	10 ppm	10 ppm	

## SECTION 2 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT:	210°F (99°C) / ND
VAPOR PRESSURE:	ND
VAPOR DENSITY:	>1
SOLUBILITY IN WATER:	Complete
SPECIFIC GRAVITY@20°C:	0.99
pH RANGE:	11.4
EVAPORATION RATE (Water=1) :	1
VOLATILE RATE:	100%
PHYSICAL DESCRIPTION:	Colorless to straw yellow liquid with strong amine 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 self-contained breathing apparatus.

## SECTION 4 - REACTIVITY HAZARD DATA

STABILITY:	Stable
INCOMPATIBILITY:	Strong acids.
CONDITIONS TO AVOID:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of carbon and nitrogen may form in burning conditions.
HAZARDOUS POLYMERIZATION:	Will not occur.

## SECTION 5 - HEALTH HAZARD DATA AND FIRST AID

PRIMARY ROUTES OF ENTRY:		FIRST AID PROCEDURES:	
SKIN:	May cause skin irritation. Can cause skin sensitization.	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. Permanent eye injury possible.	EYES:	Immediately flush eyes with large amounts of water for 15 minutes and get medical attention.
INGESTION:	Corrosive to mucous membranes, possible severe gastric irritation.	INGESTION:	If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately. Never give anything by mouth to an unconscious person.
INHALATION:	Corrosive to mucousal membranes. Nausea, irritation, lightheadedness, drowsiness, and/or possible anxiety.	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 P.E.L.
VENTILATION:	Local and/or mechanical exhaust to maintain exposure below P.E.L.
PROTECTIVE CLOTHING:	Neoprene gloves, full chemical suit, boots – as necessary to prevent skin contact.
EYE PROTECTION:	Chemical goggles and or/full face shield.
OTHER PRECAUTIONS:	Safety shower and eyewash fountains should be easily accessible.
HYGIENIC WORK PRACTICES:	Do not eat, drink or smoke in work area. Wash hands after handling. Launder contaminated clothing.

## SECTION 7 – PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:	Keep upwind. Avoid skin contact. Absorb spills 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 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.
OTHER PRECAUTIONS:	KEEP OUT OF REACH OF CHILDREN.

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