



ADENA TECHNOLOGIES

MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: 07/24/07

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 2345** CHEMICAL FAMILY: Internal Boiler Treatment
 PRODUCT NUMBER: AD2345 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 DATE PREPARED: 06/19/07

PROPER SHIPPING NAME: CONSUMER COMMODITY (ORM-D)

HMIS 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
Sodium Hydroxide	No	1310-73-2	<5	No	2 mg/m3	2 mg/m3	
Potassium Hydroxide	No	1310-58-3	<5	No	2 mg/m3	2 mg/m3	
Morpholine	No	110-91-8	<5	No	20 ppm	20 ppm	

SECTION 2 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT: 212°F (100°C) / ND
 VAPOR PRESSURE: ND
 VAPOR DENSITY: ND
 SOLUBILITY IN WATER: Complete
 SPECIFIC GRAVITY @20°C: 1.14
 pH RANGE: 13.5
 EVAPORATION RATE (Water=1): < 1
 VOLATILE RATE: 85%
 PHYSICAL DESCRIPTION: Dark brown liquid.

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: Material is alkaline. Beware of exploding drums due to expansion.

SECTION 4 - REACTIVITY HAZARD DATA

STABILITY: Stable
 INCOMPATIBILITY: Strong acids. Product reacts with zinc, aluminum, tin and other active metals liberating flammable hydrogen gas.
 CONDITIONS TO AVOID: N/A
 HAZARDOUS DECOMPOSITION PRODUCTS: None known.
 HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 5 - HEALTH HAZARD DATA AND FIRST AID

PRIMARY ROUTES OF ENTRY:	FIRST AID PROCEDURES:
SKIN: Alkaline components may cause irritation upon extended 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: Immediate irritation upon contact which may result in chemical burns.	EYES: Immediately flush with large amounts of water for 15 minutes and get medical attention.
INGESTION: Irritation and chemical burns possible upon ingestion.	INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately. Never give anything by mouth to an unconscious person.
INHALATION: Unlikely route of exposure with normal handling.	INHALATION: Move to fresh air. Aid in breathing, if necessary, and get medical attention.

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

RESPIRATORY PROTECTION: Respirator not required with most applications.
 VENTILATION: Local exhaust is generally sufficient to minimize exposure.
 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.
 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: Avoid skin contact. Neutralize with appropriate material and absorb with sand or inert material. Place in suitable container for disposal. Flush neutralized residues with water to sanitary sewer.
 WASTE DISPOSAL METHODS: Corrosive. 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.
 OTHER PRECAUTIONS: Hazardous waste 40CFR261. Number D002. 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.