



MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: 07/30/07

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 9000** CHEMICAL FAMILY: Acid Descaler
PRODUCT NUMBER: AD9000 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
SHIPPING NAME: CONSUMER COMMODITY (ORM-D)

HMIS HAZARDOUS MATERIALS IDENTIFICATION SYSTEM	RATING
HEALTH	3
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
Hydrochloric Acid	No	7647-01-0	<20	No	5 ppm	5 ppm	

SECTION 2 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT: 212°F (100°C) / ND
VAPOR PRESSURE: ND
VAPOR DENSITY: >1
SOLUBILITY IN WATER: Complete
SPECIFIC GRAVITY: 1.08
pH RANGE: <1
EVAPORATION RATE (Water=1): ≈1
VOLATILE RATE: >95%
PHYSICAL DESCRIPTION: Light yellow liquid with biting, pungent odor.

SECTION 3 - FIRE/EXPLOSION HAZARD DATA

FLAMMABILITY: (FLAME PROJECTION) N/A AUTO IGNITION TEMP: N/A
FLASH POINT: NA
FLAMMABILITY LIMITS: N/A
EXTINGUISHER MEDIA: Not combustible
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus.
UNUSUAL FIRE & EXPLOSION HAZRDS: Contact with many metals will liberate hydrogen gas that can form an explosive environment.

SECTION 4 - REACTIVITY HAZARD DATA

STABILITY: Stable
INCOMPATIBILITY: Strong alkalis.
CONDITIONS TO AVOID: Temperatures above 200°F (93°C).
HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, hydrogen gas.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 5 - HEALTH HAZARD DATA AND FIRST AID

PRIMARY ROUTES OF ENTRY:	FIRST AID PROCEDURES:
SKIN: May cause irritation and burns.	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: Will produce immediate irritation.	EYES: Immediately flush eyes with large amounts of water for 15 minutes and get medical attention.
INHALATION: Vapors are extremely irritating; Breathing high concentrations will cause immediate irritation of breathing passages.	INHALATION: Move to fresh air. Aid in breathing, if necessary, and get medical attention.
INGESTION: Immediate destruction to esophageal linings. Can be fatal.	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 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: Avoid skin contact. Keep upwind. Neutralize with appropriate material and place in suitable container for proper disposal. Flush neutralized residues with water to sanitary sewer.
WASTE DISPOSAL METHODS: Corrosive. 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: Hazardous waste 40CFR261. Hazardous waste 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.