

Material Safety Data Sheet

May be used to comply with
 OSHA's Hazard Communication Standard
 29 CFR 1910.1200. Standard must be
 consulted for specific requirements.

**PRODUCT IDENTITY – SECTION I**

PRODUCT NAME: H & M	EMERGENCY PHONE: Chem Trec / 800-424 -9300
CAS #: See Below	REVISION DATE: May 6, 2008
MANUFACTURER: Arcal Chemicals, Inc.	OTHER PHONE: 301-336-9300
ADDRESS: 223 West Hampton Avenue Capitol Heights, MD 20743	FAX: 301-336-6597

HAZARDOUS INGREDIENTS / OTHER COMPONENTS – SECTION II

MATERIAL / CAS #	%	ACGIH (TLV – TWA)	OSHA (PEL -TWA)
Nitric Acid Solution/ CAS # 7697-37-2		2 ppm	2 ppm
Acid Fluorides/ CAS # 1341-49-7		--	2.5 mg/m ³

PHYSICAL DATA – SECTION III

APPEARANCE Clear Solution	ODOR Acid Odor	MELT POINT N/A	SPECIFIC GRAVITY 1.17
VAPOR DENSITY N/A	% VOLATILE BY VOLUME 55 %	BULK DENSITY	BOILING POINT 110 C
VAPOR PRESSURE mmHg °f N/A	% SOLUBILITY (H20)		

FIRE AND EXPLOSION HAZARD DATA – SECTION IV

FLASH POINT & METHOD: None	<table border="1"> <thead> <tr> <th colspan="2">NFPA FIRE HAZARDS</th> </tr> </thead> <tbody> <tr> <td>HEALTH</td> <td style="text-align: center;">3</td> </tr> <tr> <td>FLAMMABILITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td>REACTIVITY</td> <td style="text-align: center;">3</td> </tr> <tr> <td>SPECIFIC</td> <td style="text-align: center;">0</td> </tr> </tbody> </table>	NFPA FIRE HAZARDS		HEALTH	3	FLAMMABILITY	0	REACTIVITY	3	SPECIFIC	0
NFPA FIRE HAZARDS											
HEALTH		3									
FLAMMABILITY		0									
REACTIVITY	3										
SPECIFIC	0										
FLAMMABLE LIMITS: N/A											
EXTINGUISHING MEDIA: Water, dry chemicals, foam											
SPECIAL FIRE FIGHTING PROCEDURES:											
UNUSUAL FIRE AND EXPLOSION HAZARDS: DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS: Hydrogen Fluoride & Oxides of Nitrogen EMPTY CONTAINER:	4 = EXTREME 3 = HIGH 2 = MODERATE 1 = SLIGHT 0 = INSIGNIFICANT										

REACTIVITY DATA – SECTION V**Stability:** Stable**Conditions to avoid:****Incompatibility (Material to avoid):** Avoid contact with easily oxidizable materials like alcohols & alkaline material.**Hazardous decomposition byproducts:****Hazardous Polymerization:****Conditions to avoid:****HEALTH HAZARD DATA – SECTION VI****Route(s) of Entry:****Inhalation?**

X

Skin?

X

Ingestion?

Unlikely

Health Hazards (Acute and Chronic):**Carcinogenicity:** NTP? --

IARC Monographs? --

OSHA? --

Medical conditions generally aggravated by exposure:**EMERGENCY AND FIRST AID PROCEDURES****EYE CONTACT:** Flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.**SKIN CONTACT:** Remove any contaminated clothing and wash skin thoroughly with soap & water.**INHALATION:** If over come by vapor, remove from exposure.**INGESTION:** If ingested, DO NOT INDUCE VOMITING. Call a physician immediately.**PRECAUTIONS FOR SAFE HANDLING AND USE – SECTION VII****Steps to be taken in case material is released or spilled:** Collect with inert material. Flush area with plenty of water.**Waste Disposal Method:** Dilute with plenty of water and neutralize with caustic soda solution. Dispose in accordance with local, state, and federal regulations.**Precautions to be taken in handling and storing:** Keep containers and storage containers closed when not in use.**CONTROL MEASURES – SECTION VIII****Respiratory or breathing apparatus:** Use supplied-air respiratory protection in confined or enclosed spaces.**Ventilation:****Local Exhaust:** Yes**Mechanical:****Special:****Other:****Protective Gloves:** Chemical resistant gloves.**Eye Protection:** Use goggles or face shield.**Other Protective Clothing or Equipment:** Chemical resistant clothing to avoid contamination of regular clothing.**TRANSPORTATION INFORMATION****Proper Shipping Name:**

Nitric Acid Solution / 8 (Corrosive Material) / UN 2031/ PG : 11