Product ID: AMMONIA, ANHYDROUS
MSDS Date: 12/07/1994
FSC: 6830
NIIN: 00-292-0135
MSDS Number: BWZPV

=== Responsible Party ===
Company Name: MG INDUSTRIES
Address: 2460 BOULEVARD OF THE GENERALS
Box: 945
City: VALLEY FORGE
State: PA
ZIP: 19482
Country: US
Info Phone Num: 215-630-5422
Emergency Phone Num: 215-630-5422
CAGE: 08772

=== Contractor Identification ===
Company Name: MG INDUSTRIES
Address: 3 GREAT VALLEY PKY
Box: City: MALVERN
State: PA
ZIP: 19355-1424
Country: US
Phone: 610-695-7400 / 610-695-7449
CAGE: 08772

=============== Composition/Information on Ingredients ===============

Ingred Name: AMMONIA (SARA 302/313) (CERCLA)
CAS: 7664-41-7
RTECS #: B00875000
Fraction by Wt: 100%
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 50 PPM
ACGIH TLV: 25 PPM/35 STEL; 9495
EPA Rpt Qty: 100 LBS
DOT Rpt Qty: 100 LBS

=============== Hazards Identification ================

LD50 LC50 Mixture: INHALE-RAT LC50 IS 2000 PPM/4 HRS
Routes of Entry: Inhalation: YES Skin: NO Ingestion: YES
Reports of Carcinogenicity: NTP: NO IARC: NO OSHA: NO
Health Hazards: Acute and Chronic: ACUTE: INHALATION MAY CAUSE SEVERE
IRRITATION OR DAMAGE TO RESPIRATORY SYSTEM. CONTACT WITH VAPOR MAY
CAUSE SEVERE SKIN & EYE IRRITATION OR BURNS; LIQUID CONTACT MAY
CAUSE FROSTBITE. INGESTION MAY CAUSE SEVERE INJURY TO MOUTH, THROAT
OR GI TRACT. CHRONIC: PROLONGED EXPOSURE MAY INJURE
KIDNEY, LIVER, SPLEEN, RESPIRATORY TRACT.
Explanation of Carcinogenicity: AMMONIA IS NOT LISTED AS A CARCINOGEN BY
NTP OR IARC NOR IS IT REGULATED BY OSHA AS A CARCINOGEN.
Effects of Overexposure: INHALED-NOSE/THROAT/CHEST IRRITATION, LARYNGEAL
SPASM, CONVULSIVE COUGHING, CHEST PAIN, PINK FROTHY SPUTUM, RUNNY
NOSE, RESTLESSNESS, HEADACHE, NAUSEA, VOMITING. EYES-SEVERE IRRITATION, TEARING, PAIN, REDNESS, BLU RED VISION.
SKIN-BURNS, STINGING SENSATION, REDNESS, PAIN. INGESTED-DIFFICULTY SWALLOWING & SPEECH, NAUSEA, STOMACH PAIN....
Medical Cond Aggravated by Exposure: NONE SPECIFIED BY MANUFACTURER.

=============================================  First Aid Measures  ===============================

First Aid: IN ALL CASES GET IMMEDIATE MEDICAL ATTENTION. INHALED-REMOVE TO FRESH AIR IMMEDIATELY. PERFORM ARTIFICIAL RESPIRATION IF NEEDED. INGESTED-IF CONSCIOUS, GIVE LOTS OF WATER OR MILK. ALLOW VOMITING TO OCCUR. SKIN-REMOVE CONTAMINATED CLOTHES/SHOES. WASH WITH SOAP AND WATER. EYES-FLUSH WITH LOTS OF WATER FOR 15 MINUTES. NO SPECIFIC ANTIDOTE-TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

==============================================  Fire Fighting Measures  ========================

Autoignition Temp: Autoignition Temp Text: 1204F
Lower Limits: 15
Upper Limits: 28
Extinguishing Media: CARBON DIOXIDE OR DRY CHEMICAL. FOR LARGER FIRES USE WATER SPRAY OR FOAM.
Fire Fighting Procedures: MOVE CONTAINER IF CAN BE DONE AT NO RISK. WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. COOL FIRE EXPOSED CONTAINERS WITH WATER.
Unusual Fire/Explosion Hazard: SLIGHT FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. MODERATE EXPLOSION HAZARD WHEN EXPOSED TO HEAT OR FLAME.

=============================================  Accidental Release Measures  =================

Spill Release Procedures: ISOLATE & DENY ENTRY. WEAR PROPER PERSONAL PROTECTIVE CLOTHING. STOP LEAK IF FEASIBLE. USE WATER SPRAY TO REDUCE VAPOR-DO NOT APPLY DIRECTLY TO SPILLED MATERIAL! VENTILATE AREA. SMALL-FLOOD W/WATER. LARGE-DIKE/CONTAIN. ISOLATE AT LEAST 150 FEET.
Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

=============================================  Handling and Storage  =======================

Handling and Storage Precautions: PROTECT AGAINST PHYSICAL DAMAGE.
OUTSIDE OR DETACHED STORAGE IS PREFERRED. INSIDE STORAGE SHOULD BE COOL, WELL-VENTILATED.
Other Precautions: STORE AWAY FROM INCOMPATIBLE MATERIALS AND SOURCES OF IGNITION. MATERIAL IS EXTREMELY POISONOUS; AVOID INHALATION OF VAPORS OR CONTACT WITH SKIN. CONTENTS MAY BE UNDER PRESSURE; CONTENTS MAY RUPTURE VIOLENTLY AND TRAVEL A LONG WAY.

=============================================  Exposure Controls/Personal Protection  ==========

Respiratory Protection: IF ENGINEERING CONTROLS FAIL OR NON-Routine USE OR AN EMERGENCY OCCURS; WEAR AN MSHA/NIOSH APPROVED RESPIRATOR OR AN AIR-SUPPLIED RESPIRATOR OR SCBA, AS REQUIRED. USE IN ACCORDANCE WITH 29 CFR 1910.134 AND MANUFACTURER'S RECOMMENDATIONS.
Ventilation: USE ADEQUATE MECHANICAL VENTILATION OR LOCAL EXHAUST TO MAINTAIN EXPOSURE BELOW TLV(S).
Protective Gloves: RUBBER, PVC, NEOPRENE.
Eye Protection: SAFETY GLASSES/ CHEMICAL SPLASH GOGGLES.
Other Protective Equipment: EYE WASH STATION & SAFETY SHOWER. WEAR APPROPRIATE IMPERVIOUS CLOTHING TO PREVENT ANY SKIN CONTACT WITH PRODUCT.

Work Hygienic Practices: WASH HANDS AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDER CONTAMINATED CLOTHES BEFORE REUSE.

Supplemental Safety and Health
PH IN 1.0N SOLUTION=11.6.

================================ Physical/Chemical Properties ==================================

HCC: G6
Boiling Pt: B.P. Text: -27F, -33C
Melt/Freeze Pt: M.P/F.P Text: -108F, -78C
Vapor Pres: 6658 MM HG
Vapor Density: 0.5967
Spec Gravity: 0.7 G/L
Solubility in Water: APPRECIABLE
Appearance and Odor: COLORLESS GAS WITH AN EXTREMELY PUNGENT ODOR.

================================ Stability and Reactivity Data ==================================

Stability Indicator/Materials to Avoid: YES
ACIDS, ALDEHYDES, HALOGENS, HEAVY METALS & CMDS, INTERHALOGENS, STRONG OXIDIZERS, PLASTIC/RUBBER/OATTINGS, VINYL CMDS, SULFUR...
Stability Condition to Avoid: KEEP AWAY FROM SOURCES OF IGNITION AND INCOMPATIBLE MATERIALS.
Hazardous Decomposition Products: THERMAL DECOMPOSITION MAY RELEASE CORROSIVE FUMES OF AMMONIA AND TOXIC OXIDES OF NITROGEN.
Conditions to Avoid Polymerization: HAZARDOUS POLYMERIZATION HAS NOT BEEN REPORTED TO OCCUR UNDER NORMAL TEMPERATURES AND PRESSURES.

================================ Disposal Considerations =======================================

Waste Disposal Methods: DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS. ENVIRONMENTAL DATA: SARA 302 TFQ-500 LBS; SARA 304 RQ-100 LBS; CERCLA 103 RQ-100 LBS; OSHA PROCESS SAFETY MANAGEMENT TQ-10,000; SARA 313-YES.

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