Product ID:ANHYDROUS AMMONIA

MSDS Date:12/01/1989

FSC:6830

NIIN:00-664-9062

MSDS Number: BWFMW === Responsible Party ===

Company Name: AGRICO CHEMICAL CO

Address:7250 HWY 44 City:UNCLE SAM

State:LA

ZIP:70792-9999 Country:US

Info Phone Num:504-562-3501

Emergency Phone Num:800-424-9300(CHEMTREC)

CAGE:AGRIC

=== Contractor Identification ===

Company Name: AGRICO CHEMICAL CO

Address:7250 HWY 44 Box:City:UNCLE SAM

State:LA

ZIP:70792-9999 Country:US

Phone:504-562-3501

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

Ingred Name: AMMONIA (SARA III)

CAS:7664-41-7

RTECS #:BO0875000 Fraction by Wt: 99-100%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:50 PPM

ACGIH TLV:25 PPM/35 STEL; 9394

EPA Rpt Qty:100 LBS DOT Rpt Qty:100 LBS

======= Hazards Identification =

LD50 LC50 Mixture:LD50 ORAL, RAT=350MG/KG.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:SEVERE EYE/RESP TRACT/SKIN

IRRIT.BURNING/TEARING OF EYES, RUNNY NOSE, COUGHING, CHEST

PAIN, CESSATION OF RESP, DEATH. SEVERE BREATH DIFFI MAY BE DELAYED IN

ONSET.EXPO OF EYE TO HI CONCEN MAY PROD TEMP BLIND

NESS(CATARACTS,GLAUCOMA),SEVERE EYE DAMAGE.EXPO OF SKIN CAUSE BURNING/BL

ISTER.CONTACT W/LIQ BLINDNESS, SEVE EYE, SKIN BURN

Explanation of Carcinogenicity:PER MSDS:LISTED AS CARCINOGEN IN:IARC/NTP/OSHA:NO.

Effects of Overexposure:EYE/RESP TRACT/SKIN IRRITANT. COUGHING, CHEST PAIN, CESSATION OF RESPIRATION, DEATH. BREATHING DIFFICULTY. BLINDNESS(CATARACTS, GLAUCOMA), SEVERE EYE DAMAGE. SKIN BURNING/BLISTERING.

Medical Cond Aggravated by Exposure: CHRONIC RESPIRATORY OR SKIN DISEASE.

First Aid:EYE:IMMED FLUSH W/WATER FOR @LEAST 15MINS LIFTING EYELIDS.SKIN:IMMED FLUSH W/WATER FOR @LEAST 15MINS.CLOTH FROZEN TO SKIN SHOULD BE REMOVED ONLY AFT COMPLETELY THAWED.REMOVE TO FRESH AIR.INHAL:REMOVE TO FRESH AIR.ADMINISTER ART RESP IF NOTBREATH(OXY MAY BE GIVEN BY TRAINED INDIVIDUAL IF NECESSARY).INGEST:GIVE LG AMTS OF WATER OR MILK TO DRINK IMMED.DO NOT INDUCE VOMIT.IN ALL CASES (SUPPLEMENTAL)

	Fire Fighting Measures	=======================================
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Lower Limits:15 Upper Limits:28

Extinguishing Media:STOP FLOW OF GAS RATHER THAN EXT FIRE.CARBON DIOXIDE, DRY CHEMICAL USE TO PERMIT ACCESS TO SHUT OFF VALVE.

Fire Fighting Procedures:USE WATERSPRAY TO CNTRL VAP.WATER/LIQ NH3
MIXTURE WILL GENERATE HEAT/VAP.DO NOT PUT WATER ON LIQ NH3 UNLESS
HAVE >100VOL WATER/VOL NH3.WEAR FULL PROT CLOTH/SCBA

Unusual Fire/Explosion Hazard:15-28% NH3 VAP IN AIR CAN EXPLO ON CONTACT W/IGN SOURCE.NOT RECOMMEND TO USE WELD/FLAME CUT EQPMT

======== Accidental Release Measures ==========
Spill Release Procedures:STOP LEAK W/O RISK.ISOLATE IN ALL DIRECTIONS 300FT.EVACUATE DOWNWIND DIRECTION 0.4 MILE WIDE & 0.8MILE LONG.USE WATERSPRAY TO REDUCE VAP;DO NOT PUT WATER ON LIQ POOL.STAY UPWIND.USE SCBA/FULLY ENCAPSU LATED PROT CLOTH.DIKE.KEEP OUT OF SEWERS/STREAMS.
Neutralizing Agent:NONE SPECIFIED BY MFG.
============ Handling and Storage ====================================
Handling and Storage Precautions:SEE CURRENT ANSIK61.1 STD"SAF REQMTS FOR STOR/HANDLE OF ANHYDROUS HN3".EYE PROT CRITICAL.DO NOT EXPO BODY TO ANY DISCHARGE OEPNING(HOSEEND, VALVES, ETC) Other Precautions:IN AGRICULTURAL DISTRIBUTION, PROVIDE EASILY ACCESSIBLE SHOWER &/OR @LEAST 100GAL OF CLEAN WATER IN OPEN TOP CNTNR.WHEN TRANSPORTING PROVIDE @LEAST 5GAL OF ACCESSIBLE CLEAN WATER & PERSONAL PROT EQPMT.
======= Exposure Controls/Person al Protection =========
Respiratory Protection:LESS THAN 500PPM:GAS MASK W/CHIN-STYLE OR FRONT OR BACK-MOUNTED NH3 CANISTER. GREATER THAN 500PPM:SELF-CONTAINED BREATHING APPARATUS W/FULL-FACE PIECE OPERATED IN POSITIVE PRESSURE
MODE. Ventilation:ADEQUATE VENTILATION TO KEEP AMMONIA CONCENTRATIONS BELOW APPLICABLE STANDARDS WHEN POSSIBLE. Protective Gloves:NEOPRENE,RUBBER GAUNTLET-TYP
Eye Protection:CHEM GOGG W/FULLFACE SHIELD FOR ADDN PRO Other Protective Equipment:NH3 RESI ST CLOTH(OVERALL, JACKET, BOOT) OR VAP
SUIT,SAF SHOWER,EYEWASH;LIQ AMMONIA MAY CAUSE PROT EQPMT BECOME BITTLE.
Work Hygienic Practices:AVOID CONTACT. Supplemental Safety and Health
DENSITY:5.15LB/GAL @60F. 1STAID:GET MED ATTN/CALL PHYSICIAN.NOTE TO PHYSICIAN:PNEUMONITIS SHOULD BE ANTICIPATED AFT INHAL/INGEST.IF SEVERE EXPO IS SUSPECTED OBSERVE FOR 48-72HRS FOR DELAYED PULM EDEMA.
========= Physical/Chemical Properties ==========
HCC:G5 Boiling Pt:B.P. Text:

ON/IN NH3 CNTNR UNLESS PUPRGED/WATER RINSED/OIL RESIUDE REMOVE

255, 220
-25F,-32C
Melt/Freeze Pt:M.P/F.P Text:-108F,-78C
Vapor Density:0.60 @32F
Spec Gravity:0.58
pH:11
Solubility in Water:89.9G/100CC, @32F
Appearance and Odor:GAS (LIQ UNDER PRESSURE), COLORLESS GAS & LIC W/STRONG PUNGENT PENETRATING ODOR
Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES STRONG ACIDS &

OXIDIZERS,ACETALDEHYDE,ACROLEIN,CHLORINE,FLUORINE,BROMINE,MERCURY,G OLD,SILVER,HYPOCHLORITE B

LEACHES.

Stability Condition to Avoid:AVOID USE OF NONFERROUS METALS.
Hazardous Decomposition Products:HYDROGEN RELEASED ONHEATING
>850F(454C).DECOMP TEMP MAY BE LOWERED BY 575F(300C)BY CONTACT
W/CERTAIN METALS SUCH AS NI.

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

Waste Disposal Methods:RQ=100LBS. NONE SPECIFIED BY MFG HOWEVER DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

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