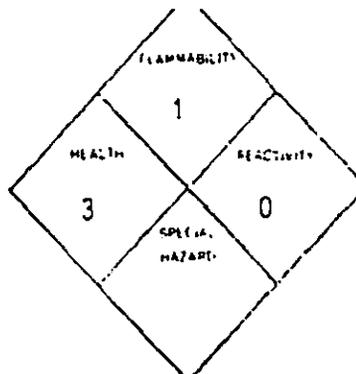




ALL PURE CHEMICAL CO.
P.O. BOX 268
TRACY, CA 95376



NFPA RATING

EMERGENCY NUMBERS:
209-835-5423
209-836-5405

PRODUCT IDENTIFICATION

TRADE NAME: 1) ALL PURE CLEAR AMMONIA
2) ALL PRO CLEAR AMMONIA
3) PRIVATE LABEL CLEAR AMMONIA
SYNONYMS: AMMONIA WATER, HOUSEHOLD AMMONIA, AQUEOUS AMMONIA

CHEMICAL NAME: AMMONIUM HYDROXIDE

FORMULA: NH₄OH

CHEMICAL FAMILY: BASE

CAS#: 1336216

PHYSICAL DATA

PHYSICAL STATE AT STP: LIQUID BOILING POINT: DECOMPOSES

SPECIFIC GRAVITY: 0.97 VAPOR DENSITY: 0.6

PERCENT VOLATILE: 99.5% VAPOR PRESSURE: 2.0-2.5

SOLUBILITY IN WATER: 100%

EVAPORATION RATE (WATER =1): ±1

APPEARANCE & ODOR: COLORLESS, PUNGENT

MATERIAL SAFETY DATA SHEET (CONT.)

HAZARDOUS COMPONENTS

COMPONENTS & %	CAS #	UN/NA#	CARCINOGEN	PEL
AMMONIA (5.5%)	7664417	UN1005	NOT CARCINOGEN	50ppm (35 mg/m ³)
AMMONIUM HYDROXIDE	1336216	UN2073	NOT CARCINOGEN	NOT LISTED

FIRE & EXPLOSION HAZARD DATA

FLASH POINT: NDT FLAMMABLE UNDER USUAL CONDITIONS

AUTOIGNITION TEMP: 1204 F

FLAMMABLE LIMITS IN AIR (% BY VOLUME): LOWER: 16
UPPER: 25 (AS NH₃)

EXTINGUISHING MEDIA TO BE USED: MEDIUM SUITABLE FOR SURROUNDING FIRE; WATER SPRAY OR FOG (THE LIQUID IS NON-FLAMMABLE UNDER USUAL CONDITIONS).

SPECIAL FIRE FIGHTING PROCEDURES: FULL PROTECTIVE GEAR AND SELF-CONTAINED BREATHING APPARATUS. STAY UPWIND, USE WATER SPRAY TO "KNOCK DOWN" ANY AMMONIA VAPOR AND TO COOL EXPOSED CONTAINERS. VENTILATE TO DISSIPATE VAPOR IF NEEDED.

UNUSUAL FIRE AND EXPLOSION HAZARDS: HEAT OR MIXTURE WITH NaOH MAY CAUSE RELEASE OF FLAMMABLE AMMONIA; VIOLENT REACTIONS CAN OCCUR WITH ACIDS AND OTHER COMPOUNDS, INCLUDING DIMETHYL SULFATE AND FLOURINE. EXPLOSIVE MATERIALS CAN RESULT FROM REACTION WITH IODINE AND SOME SILVER COMPOUNDS.

HEALTH HAZARD DATA

HEALTH HAZARDS ARE DUE TO THE POTENTIAL FOR INHALATION OF AMMONIA VAPOR, AND FOR INGESTION OF OR SKIN OR EYE CONTACT WITH THE CORROSIVE LIQUID. THE ODDR OF AMMONIA IS DETECTABLE AT 5 PPM AND IRRITATING AT 25-30 PPM.

THRESHOLD LIMIT VALUE: (TWA:) 25PPM (STEL:) 35 PPM

ROUTES OF ENTRY: INHALATION, INGESTION, SKIN OR EYE CONTACT.



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HEALTH HAZARD DATA (CONT.)

EFFECTS OF OVEREXPOSURE

INHALATION: EFFECTS RANGE FROM MILD IRRITATION OF RESPIRATORY TRACT TO DYSPNEA, COUGHING AND CHEST PAIN; SOME TIMES ACCOMPANIED BY NAUSEA AND VOMITING. PULMONARY EDEMA MAY FOLLOW; DEATH HAS RESULTED FROM INTENSE EXPOSURES.

INGESTION: CORROSIVE TO THE DIGESTIVE TRACT; MAY CAUSE SEVERE BURNS, INCLUDING LARYNGEAL EDEMA.

EYE CONTACT: MAY CAUSE SEVER AND PERMANENT DAMAGE.

SKIN CONTACT: EFFECTS MAY RANGE FROM MILD IRRITATION TO SEVERE DAMAGE, DEPENDING ON AMOUNT OF SKIN CONTACT, SENSITIVITY OF TISSUE, AND LENGTH OF CONTACT.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: SKIN OR EYE IRRITATION OR INFLAMMATIONS MAY BE AGGRAVATED; RESPIRATORY TRACT IRRITATION OR INFECTIONS AND SOME PULMONARY DISEASES MAY ALSO BE AGGRAVATED.

EMERGENCY AND FIRST AID

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH CLEAR RUNNING WATER FOR AT LEAST 15 MINUTES INCLUDING UNDER EYELIDS; GET MEDICAL ATTENTION.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING UNDER SAFETY SHOWER AND FLUSH AFFECTED AREAS WITH WATER; GET MEDICAL HELP IF LARGE AREAS AFFECTED OR IRRITATION PERSISTS.

INHALATION: REMOVE TO FRESH AIR, SUPPORT BREATHING IF REQUIRED; RINSE MOUTH WITH WATER TO PREVENT BURNS; ENFORCE REST; GET MEDICAL HELP IF REQUIRED.

INGESTION: DO NOT INDUCE VOMITING! IF CONSCIOUS, GIVE LARGE AMOUNTS OF WATER TO DRINK, FOLLOWED BY MILK. (DILUTE VINEGAR OR CITRUS JUICE MAY BE GIVEN IN PLACE OF WATER, IF APPROVED BY MEDICAL AUTHORITY.) GET PROMPT MEDICAL ATTENTION.

REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: HEAT; PHYSICAL DAMAGE TO CONTAINERS

MATERIAL SAFETY DATA SHEET (CONT.)

REACTIVITY DATA (CONT.)

INCOMPATIBILITIES (MATERIALS TO AVOID): ACIDS AND OTHER BASES; COPPER, ZINC, TIN, ALUMINUM AND THEIR ALLOYS (INCLUDING GALVANIZED SURFACES); ORGANICS AND HALOGENS AND HALOGENATED COMPOUNDS.

HAZARDOUS DECOMPOSITION PRODUCTS: AMMONIA (NH₃) MAY BE RELEASED IF HEATED OR MIXED WITH NaOH.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF SPILL OCCURS: EVACUATE AREA; PROTECT CLEANUP PERSONNEL FROM INHALATION OR SKIN OR EYE CONTACT; CONTAIN SPILL; STOP LEAK; USE WATER COLLECTION OR NEUTRALIZATION AND SAFE DISPOSAL.

WASTE DISPOSAL METHODS: DILUTE WITH WATER; NEUTRALIZE WITH DILUTE ACIDS AND THEN HIGHLY DILUTED WITH WATER FOR DISCHARGE. DO NOT DISCHARGE UNTREATED WASTES TO SEWER OR SURFACE OR GROUND WATER SUPPLIES. CONTACT LOCAL AUTHORITIES IF AN UNCONTROLLED SPILL OCCURS; DISPOSE OF LIQUID WASTE IN APPROVED FASHION.

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: FULL FACE MASK RESPIRATOR IS DESIRED TO PROTECT EYES AS WELL AS PREVENT INHALATION IF CONCENTRATIONS ARE ABOVE TLF. IF ABOVE 300 PPM (OR UNKNOWN CONCENTRATION) SELF-CONTAINED APPARATUS SHOULD BE AVAILABLE.

VENTILATION (NATURAL): USUALLY SUFFICIENT UNDER NORMAL CONDITIONS.

VENTILATION (MECHANICAL): USE LOCAL EXHAUST AND GENERAL VENTILATION AS NEEDED TO KEEP CONCENTRATIONS BELOW TLV AND PREVENT IRRITATION.

PROTECTIVE GLOVES: RUBBER

EYE PROTECTION: CHEMICAL GOGGLES OR FACE SHIELD; PROHIBIT CONTACT LENSES

OTHER PROTECTIVE EQUIPMENT: RUBBER BOOTS AND APRON; OTHER PROTECTIVE CLOTHING AS NEEDED TO PREVENT SKIN CONTACT.



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SPECIAL PRECAUTIONS

PRECAUTIONARY LABELLING: KEEP CONTAINERS CLOSED AND AWAY FROM FLAMMABLE LIQUIDS. STORE IN COOL, DRY AREA AWAY FROM ALL OTHER CHEMICALS.

OTHER HANDLING AND STORAGE CONDITIONS: STORE IN CONTAINED AREA WITH SUMPS OR PONDS FOR COLLECTION AND NEUTRALIZATION OF SPILLS; PROVIDE EYE WASH STATION, SAFETY SHOWER AND WASHING FACILITIES IN ALL AREAS WHERE STORED OR USED.

U.S. DEPT. OF TRANSPORTATION (D.O.T.) SHIPPING INFORMATION

NOT REGULATED AS A HAZARDDUS MATERIAL BY DOT OR IMO

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DATE OF LATEST REVISION: MARCH 1, 1990