

LAKELAND

CHEMICAL SPECIALTIES, INC.

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MATERIAL SAFETY DATA SHEET

DATE ISSUED 10/06

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: B-5450
CHEMICAL NAME: AQUA AMMONIA
CHEMICAL FAMILY: INDUSTRIAL WATER TREATMENT/CORROSION INHIBITOR-AMMONIA

SECTION 2: HAZARDOUS INGREDIENTS

MATERIAL	PERCENT	CAS#	TLV	PEL
AQUA AMMONIA	29.40%	7664-41-7	25ppm	25ppm

SECTION 3: PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT: 80°F PERCENT VOLATILE 100%
SOLUBILITY IN WATER: COMPLETE VAPOR PRESSURE (mm Hg): 590mm Hg @100°F
Ph: 13+ VAPOR DENSITY (AIR = 1): .59lb/cu ft @32°F
SPECIFIC GRAVITY: 0.8974 WATER REACTIVE: NO
EVAPORATION RATE: SIMILAR TO WATER (1)
APPEARANCE/ODOR: COLORLESS DOT SHIPPING NAME: CORROSIVE LIQUID, N.O.S.
PUNGENT ODOR (AMMONIA SOLUTION), 8, UN2672, PGIII

SECTION 4 : FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): NONE
FLAMMABLE LIMITS IN AIR LEL/UEL 16% TO 25%
AUTO/IGNITION TEMPERATURE: 1204 °F (IF CATALYZED)
1570 °F (IF UNCATALYZED)
EXTINGUISHER MEDIA: CARBON DIOXIDE, DRY CHEMICAL OR WATER SPRAY
FIRE FIGHTING EQUIPMENT: WEAR FULL PROTECTIVE CLOTHING AND A NIOSH APPROVED
SELF-CONTAINED BREATHING APPARTUS.

SECTION 5: REACTIVITY HAZARDOUS DATA

STABILITY X STABLE UNDER NORMAL CONDITIONS OF USE

INCOMPATIBILITY (MATERIALS TO AVOID):

SILVER, MERCURY, COPPER, ZINC CHLORIDE, ACIDS, HYPOCHLORITES AND SODIUM HYDROXIDE.

HAZARDOUS DECOMPOSITION PRODUCTS: HIGH TEMPERATURE DECOMPOSITION PRODUCTS MAY INCLUDE OXIDES OF NITROGEN.

HAZARDOUS POLYMERIZATION Will NOT OCCUR

SECTION 6: ENVIRONMENTAL AND DISPOSAL INFORMATION

ENVIRONMENTAL IMPACT: AQUATIC TOXICITY STUDIES INDICATE THAT AMMONIA HYDROXIDE MAY BE MODERATELY TOXIC TO THE SPECIES TESTED. DEPENDING VARIABLES-THE BUFFERING CAPACITY AND PH OF THE RECEIVING STREAM.

ACTION TO TAKE FOR SPIL/LEAKS: STOP THE DISCHARGE IF POSSIBLE. CONTAIN SPILL TO MINIMIZE AMMONIA VAPORIZATION. DOWN WIND EVACUATION MAY BE NECESSARY.

DISPOSAL METHOD: PREFERRED DISPOSAL IS REUSE. OTHERWISE, DISPOSAL IN AN ENVIRONMENTALLY SECURE LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS IS RECOMMENDED.

SECTION 7: HEALTH HAZARD DATA

EYE: AMMONIA GAS. WHICH IS READILY GIVEN OFF BY AMMONIA HYDROXIDE, IS SEVERELY IRRITATING TO THE EYES. CONTACT WITH EYES MAY CAUSE SIGNIFICANT INJURY AND ACTUAL LOSS OF SIGHT.

SKIN CONTACT: MAY CAUSE SEVERE IRRITATION AND SKIN BURNS.

SYSTEMIC EFFECTS: EXCESS AMMONIA IN MAN IS DETOXIFIED IN THE LIVER BY CONVERSION TO UREA. THOSE WITH HISTORY OF REDUCED LIVER FUNCTION SHOULD AVOID EXPOSURE TO AMMONIA.

SECTION 8: PHYSIOLOGICAL RESPONSE

LEAST PERCEPTIBLE ODOR	:5 PPM
READILY DETECTIBLE ODOR	:20-50 PPM
NO DISCOMFORT OR IMPARMENT OF HEALTH FOR PROLONGED EXPOSURE	:50-100 PPM
GENERAL DISCOMFORT AND EYE TEARING:	
NO LASTING EFFECT ON SHORT EXPOSURE	:150-200 PPM
SEVERE IRRITATION OF EYES, EARS NOSE AND THROAT; NO LASTING EFFECT ON SHORT EXPOSURE	:400-700 PPM
COUGHING, BRONCHIAL SPASM	:1,700 PPM
DANGEROUS, LESS THAN 30 MINUTE EXPOSURE MAY BE FATAL	:2,000-3,000 PPM
SERIOUS EDEMA, STRANGUATION, ASPHYXIA, RAPIDLY FATAL	:5,000-10,000 PPM
IMMEDIATELY FATAL	:10,000 PPM

SECTION 9: FIRST AID

EYE CONTACT: WASH EYES THOROUGHLY AND IMMEDIATELY WITH WATER FOR AT LEAST 20 MINUTES. A 5% BORIC ACID SOLUTION MAY BE USED IN PLACE OF WATER. SPEED IS ESSENTIAL GET MEDICAL ATTENTION PROMPTLY.

SKIN CONTACT: WASH SKIN THOROUGHLY AND IMMEDIATELY WITH WATER. DO NOT APPLY SALVES OINTMENTS OR COVER BURNS WITH A DRESSING. INJURED AREAS SHOULD BE COVERED WITH A CLEAN CLOTH PRIOR TO MEDICAL CARE. DO NOT ATTEMPT TO NEUTRALIZE THE AMMONIUM HYDROXIDE. GET MEDICAL ATTENTION.

INHALATION: REMOVE EXPOSED PERSON TO FRESH AIR. APPLY ARTIFICIAL RESPIRATION AND OXYGEN AS NECESSARY. GET MEDICAL ATTENTION.

INGESTION: NOT GENERALLY POSSIBLE, HOWEVER, IF INGESTION OCCURS DRINK LARGE QUANTITIES OF WATER FOLLOWED BY NEUTRALIZING AGENTS SUCH AS DILUTE VINEGAR, LEMON JUICE, ORANGE JUICE, GRAPEFRUIT JUICE OR LIME JUICE. GET MEDICAL ATTENTION.

SECTION 10: HANDLING PRECAUTIONS

EXPOSURE GUIDELINE(S)

ACGIH TLV: 25PPM, 18MG/M³TLV, 8 HOUR TWA

VENTILATION: VENTILATION NECESSARY TO MEET THE OSHA TLV MUST BE PROVIDED.

RESPIRATORY PROTECTION: IN AREAS OF HIGH AMMONIA CONCENTRATION, AT OR ABOVE 300PPM., SELF-CONTAINED BREATHING APPARTUS MUST BE USED. THIS EQUIPMENT SHOULD BE USED WHEN EXPOSURE IS FOR ANY PERIOD OF TIME OR THE CONCENTRATION IS KNOWN.

SKIN PROTECTION: RUBBER OR PLASTIC GAUNTLET TYPE GLOVES, PROTECTIVE SUIT AND BOOTS. GARMENTS WORN BENEATH THE OUTER CLOTHING SHOULD BE MADE OF COTTON.

EYE PROTECTION: TIGHT FITTING VENTED GOGGLES OR FULL FACE SHIELD ARE REQUIRED. PERSONS SUBJECT TO AMMONIUM HYDROXIDE MUST NOT WEAR CONTACT LENSES.

STORAGE: AVOID HEATING CONTAINERS.

SECTION 11: HMIS RATINGS

<u> 3 </u>	HEALTH	<u> 0 </u>	REACTIVITY
<u> 1 </u>	FLAMMABILITY	<u> H </u>	PERSONAL PROTECTION

SECTION 12: REGULATORY INFORMATION

ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE ON THE TSCA INVENTORY. THIS PRODUCT CONTAINS AMMONIA WHICH IS LISTED AS AN EXTREMELY HAZARDOUS CHEMICAL UNDER SUPERFUND AMENDMENT AND REAUTHORIZATION ACT (S.A.R.A.) SECTION 302 AND IS SUBJECT TO SECTION 311 AND 312 ARE IMMEDIATE HAZARD AND A DELAYED HAZARD.