Product ID:SILVER NITRATE, AC-8188 MSDS Date:02/11/1994 FSC:6810 NIIN:00-145-0478 Status Code:A MSDS Number: CKWZC === Responsible Party === **Company Name: ANACHEMIA** Address:500 - 2ND AVE. City:VILLE ST. PIERRE (MONTREAL) H8R 1A3 State:PQ Country:CN Info Phone Num:514-489-5711 Emergency Phone Num:613-996-666 6/518-297-4444 Chemtrec Ind/Phone:(800)424-9300 CAGE:36842 === Contractor Identification === Company Name: ANACHEMIA CANADA Address:255 NORMAN H8R 1A3 Box:City:VILLE ST. PIERRE (MONTREAL) State:PQ Country:CN Phone:514-489-5711;518-297-4444 CAGE:36842

Ingred Name:SILVER NITRATE CAS:7761-88-8 RTECS #:VW4725000 = Wt:100. OSHA PEL:0.01 MG/M3 ACGIH TLV:0.01 MG (AG)/M3 EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB

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LD50 LC50 Mixture:ORAL (LD50): 50 MG/KG (MOUSE). Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:ACUTE: MAY BE FATAL BY INGESTION, INHALATION OR SKIN ABSOPTION. CORROSIVE. EYE: CAUSES SEVERE BURNS & LOSS OF VISION. MAY CAUSE PERMANENT DAMAGE. IRRITATION: EYE-RABBIT 1MG SEVERE. SKIN: CAUSES SEVER E BURNS. ARGYRIA. PROLONGED EXPOSURE MAY RESULT I N ULCERATIONS. INHALATION: MATERIAL EXTREMELY DESTRUCTIVE TO TISSUE OF MUCOUS MEMBRANES & UPPER

RESPIRATORY TRACT. INHALATION MAY BE FATAL AS RESULT OF SPASM, INFLAMMATION & EDEMA OF LARYNX & BRONCHI, CHEMICAL PNEUMONITIS & PULMONARY EDEMA. SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGH, LARYNGITIS, DYSPNEA, HEADACHE, NAUSEA AND VOMITING. (SIGNS AND SYPMTOMS OF OVEREXPOSURE)

Effects of Overexposure:HEALTH HAZARDS (CONT'D): ARGYRIA. INGESTION: BURNS IN MO

UTH, PHARYNX & GASTROINTESTINAL TRACT. ABDOMINAL PAIN, GASTROENTERITIS. MAY BE FATAL. CHRONIC: KIDNEY DAMAGE. POSSIBLE MUTAGEN. ARGYRIA. TO T HE BEST OF COMPANY'S KNOWLEDGE, CHRONIC TOXICITY OF THIS SUBSTANCE HAS NOT BEEN FULLY INVESTIGATED.

First Aid:EYES: IMMEDIATELY FLUSH WITH COPIOUS QUANTITIES OF WATER FOR AT LEAST 15 MINUTES HOLDING LIDS APART TO ENSURE FLUSHING OF ENTIRE SURFACE. CALL PHYSICIAN. S

KIN: WASH SKIN WITH COPIOUS QUANTITIES OF

WAT ER FOR AT LEAST 15 MIN. REMOVE CONTAMINATED CLOTHING. CALL A PHYSICIAN. INHALATION: REMOVE PATIENT TO FRESH AIR. ADMINISTER APPROVED OXYGEN SUPPLY IF BREATHING IS DIFFICULT. ADMINISTER ARTIFICIAL RESP IRATION OR CPR IF BREATHING HAS CEASED. CALL A PHYSICIAN. INGESTION: IF CONSCIOUS, WASH OUT MOUTH WITH WATER. DO NOT INDUCE VOMITING. CALL A PHYSICIAN.

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nition Temp:Autoignition Temp Text:NOT AP

Lower Limits:NOT APPLICAB

Upper Limits:NOT APPLICAB

Extinguishing Media:WATER SPRAY. FIRE DEGRADATION PRODUCTS: OXIDES OF NITROGEN. SILVER.

Fire Fighting Procedures:WEAR NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN A PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE. WEAR ADEQUATE PERSONAL PROTECTION TO PREVENT CONTACT WITH MA TERIAL OR ITS COMBUSTION PRODUCTS.

Unusual Fire/Explosion Hazard: POWERFUL

OXIDIZING AGENT; MAY IGNITE

OXIDIZABLE MATERIALS. CONTRIBUTES TO COMBUSTION OF OTHER MATERIALS. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE AND/OR EXPLOSION. EMITS TOXIC FUMES UNDER FIRE CONDI TIONS.

Spill Release Procedures:WEAR SCBA, RUBBER BOOTS & HEAVY RUBBER GLOVES. EVACUATE AREA. ELIMINATE ALL SOURCES OF IGNITION. SWEEP UP & PLACE IN CONTAINER FOR DISPOSAL. AVOID RAISING DUST. USE NON-SPARKING TOOL

S. VENT AREA/WASH SPILL SITE AFTER MATERIAL PICKUP. DO NOT EMPTY INTO DRAINS. DO NOT TOUCH SPILLED MATL. SPILLS OF SILVER NITRATE MUST BE PROMPTLY REMOVED. AVOID CONTACT W/COMBUSTIBLE MATL (WOOD, PAPER, OIL, CLOTHING).

Handling and Storage Precautions:STORE IN A COOL, WELL-VENTILATED PLACE AWAY FROM HEATED AREAS, SPARKS, FLAME & INCOMPATIBLE MATERIALS. DO NOT ADD ANY OTHER MATERIAL TO CONTAINER. DO NOT WAS H DOWN

DRAIN/BREATHE DUST. KEEP AWAY FROM D IRECT SUNLIGHT/STRONG INCANDESCENT LIGHT. KEEP AWAY FROM COMBUSTIBLE MATERIAL. (OTHER PRECAUTIONS)

Other Precautions:HAND/STOR (CONT'D): KEEP CONTAINER TIGHTLY CLOSED & DRY. MANIPULATE UNDER ADEQUATE FUME HOOD. AVOID RAISING DUST. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS RESIDUE. PRODUCT HIGHLY HYGROSCOPIC. AVOID CONT ACT WITH COMBUSTIBLE MATERIALS (WOOD, PAPER, OIL, CLOTHING). MINIMIZE DUST GENERATION & EXPOSURE. (S ARA)

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

Respiratory Protection: A NIOSH-APPROVED RESPIRATOR APPROPRIATE FOR THE EXPOSURE OF CONCERN . A OSHA APPROVED RESPIRATOR IS ADVISED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS. IF MORE THAN TLV, DO NOT BREATHE VAP OR. WEAR SELF-CONTAINED BREATHING APPARATUS. Ventilation: USE ONLY IN CHEMICAL FUME HOOD TO KEEP AIRBORNE LEVELS BELOW RECOMMENDED EXPOSURE LIMITS. Protective Gloves: IMPERVIOUS GLOVES . RUBBER GLOVES

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Eye Protection: ANSI-APPROVED CHEMICAL SAFETY GOGGLES & FULL FACESHIELD

Other Protective Equipment:PROTECTIVE CLOTHING: IMPERVIOUS APRON, COVERALLS/OTHER RESISTANT, PROTECTIVE CLOTHING. SUFFICIENT TO PROTECT SKIN. MAKE ANSI APPROVED EYE BATH & EMERGENCY SHOWER AVAILABLE. RUBBER SUITS/BOOTS.

Work Hygienic Practices: DO NOT GET IN EYES, ON SKIN, ON CLOTHING. WASH WELL AFTER USE. DO NOT ALLOW SMOKING AND FOOD CONSUMPTION WHILE HANDLING.

Supplemental Safety and Health

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Boiling Pt:=444.C, 831.2F B.P. Text:DECOMPOSES AT 444C Melt/Freeze Pt:=212.C, 413.6F Vapor Density:NOT APPLIC Spec Gravity:4.35 (WATER=1) Evaporation Rate & amp; Reference:NOT AVAILABLE Solubility in Water:EASILY IN COLD WATER. Appearance and Odor:WHITE ODORLESS CRYSTALLINE POWDER. Percent Volatiles by Volume:NOT APPLICAB

Stability Indicator/Materials to Avoid :YES

ORGANIC MATERIALS, AMMONIA, AMMONIUM HYDROXIDE, ACETYLENE, ACETYLIDES, CREOSOTE, CHARCOAL, ALCOHOLS, CHLORIDES, CARBONATES, BROMIDES, IODIDES, ARSENITES, MORPHINE SALTS, TANNIC ACID, TARTRATES, ANTIMONY SALTS, FERROUS SALTS

Stability Condition to Avoid:STABLE. LIGHT SENSITIVE. CONDITIONS TO AVOID: HIGH TEMPERATURES, SPARKS, OPEN FLAMES AND ALL OTHER SOURCES OF IGNITION.

Hazardous Decomposition Products:HAZARDOUS DECOMP PRODUCTS: NOT AVAILABLE. REACTION PRODUCTS: CONT ACT W/AMMONIA MAY FORM SHOCK SENSITIVE MIXTURES. CONTACT W/OTHER MATERIAL MAY CAUSE FIRE &/OR EXPLOSION. CORROSIVE (SEE POLYMERIZATION) Conditions to Avoid Polymerization:WILL NOT OCCUR. HAZARDOUS DECOMPOSITION PRODUCTS (CONT'D): TO METALS. MAY DECOMPOSE ON EXPOSURE TO LIGHT.

Toxicological Information:TOXICITY VALUES OF HAZARDOUS INGREDIENTS: SILVER NITRATE: ORAL (LD50): ACUTE: 50 MG/KG (MOUSE). INT

RAPERITONEAL (LD50): ACUTE: 23783 UG/KG (MOUSE). UNREPORTED (LDLO): ACUTE: 29 MG/KG (MAN).

Ecological:MATERIAL TO AVOID (CONT'D): CHLOROSULFONIC ACID, ARSENIC POWDER, CHLORINE TRIFLUORIDE, PHOSPHONIUM IODIDE, MAGNESIUM, SULFUR, PHOSPHINE, METALS, ALKALIES, PLASTICS, BORON PHOSPHIDE, CYANIDES, ESTERS, PHOSPHAM, PHOSPHORUS, SODIUM CYANIDE, HYPOPHOSPHITES, STANNOUS CHLORIDE, THIOCYANATES, ISOTHIOCYANATES,

REDUCING AGENTS, COMBUSTIBLE MATERIALS, EASILY OXIDIZABLE MATERIALS, CITRIC ACID, NITRITES, PHOS PHINATES, ALUMINUM, CARBIDES, PHOPHORUS ISOCYANATE, NITROMETHANE, HYDROGEN PEROXIDE, ACRYLONITRILE, NON-METALS, 1,3-BUTADIYNE, PHOSPHATES, BUTEN-3-YNE.

Waste Disposal Methods:DISPOSE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS . MATERIAL IN ELEMENTAL STATE SHOULD BE RECOVERED AND EITHER RESUSED OR RECYCLED.

Transport Information:TDG ROAD/RAIL: TDG CLASS: 5.1 9.2. PIN: UN1493. PG: II.

SARA Title III Information:N/P. OTHER PRECAUTIONS (CONT'D): USE DUST MASK OR APPROPRIATE PROTECTION. HANDLE & OPEN CONTAINER WITH CARE. DO NOT USE PRESSURE TO DISPENSE. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. WASH WELL AFTER USE. IN ACCORDANCE WI

TH GOOD STORAGE &

HANDLING PRACTICES. DO NOT ALLOW SMOKING OR FOOD CONSUMPTION WHILE HANDLING. SPECIAL PRECAUTIONS: POWERFUL OXIDIZING AGENT; MAY IGNITE OXIDIZING MATERIALS. HIGH LY TOXIC! CORROSIVE! DO NOT BREATHE DUST. AVOID ALL CONTACT W/ PRODUCT. AVOID PROLONGED OR REPEATED EXPOSURE. USE ONLY IN A CHEMICAL FUME HOOD. KEEP AWAY FROM HEAT, SPARKS AND FLAME. CONTACT WITH OTHE R MATERIAL MAY CAUSE FIRE (FEDERAL REG) Federal Regulatory Information:WHMIS CLASS: C D-1A E.

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(CONT'D): AND/OR EXPLOSION. WHEN CONTAMINATED, IT IS VERY SENSITIVE. LIGHT SENSITIVE. HANDLE AND OPEN CONTAINER WITH CARE. HARMFUL TO AQUATIC LIFE AT LOW CONCENTRATIONS . CAN BE DANGEROUS IF ALLOWED TO ENTER DRINKING WATER INTAKES. DO NOT CONTAMINATE DOMESTIC OR IRRIGATION WATER SUPPLIES, LAKES, STREAMS, PONDS OR RIVERS. RTECS NO: VW4725000.

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