## SIGMA CHEMICAL CO -- CADAVERINE DIHYDROCHLORIDE, C0500 -- 6505-00N092455

========== Product Identification =============== Product ID: CADAVERINE DIHYDROCHLORIDE, C0500 MSDS Date: 04/01/1999 FSC:6505 NIIN:00N092455 Status Code: A MSDS Number: CJTYX === Responsible Party === Company Name: SIGMA CHEMICAL CO Box: 14508 City:ST LOUIS State:MO ZIP:63178 Country: US Info Phone Num: 314-771-5765 Emergency Phone Num: 314-771-5765 CAGE:21076 === Contractor Identification === Company Name: SIGMA CHEMICAL COMPANY Address:3050 SPRUCE ST Box:14508 City:ST LOUIS State:MO ZIP:63178 Country: US Phone: 314-771-5765 CAGE:21076 ======= Composition/Information on Ingredients ======== Ingred Name: CADAVERINE DIHYDROCHLORIDE CAS: 1476-39-7 ========== Hazards Identification ====================== 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 HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION. CAUSES EYE AND SKIN IRRITATION. MATERIAL IS IRRITATING TO MUCOUS MEMBRANE AND UPPER RESPIRATORY TRACT. EXPOSURE CAN CAUSE: NAUSEA, H EADACHE AND VOMITING. Effects of Overexposure: SEE HEALTH HAZARDS. ============ First Aid Measures ================ First Aid: EYES: IMMEDIATELY FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. SKIN: IMMEDIATELY WASH WITH SOAP AND COPIOUS AMOUNTS OF WATER. INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ART IFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. INGESTION: WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN. WASH CONTAMINATED CLOTHING BEFORE REUSE. ========== Fire Fighting Measures =============== Extinguishing Media: WATER SPRAY, CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM. Fire Fighting Procedures: USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT . Unusual Fire/Explosion Hazard: EMITS TOXIC FUMES UNDER FIRE CONDITIONS. ======== Accidental Release Measures =========== Spill Release Procedures: WEAR NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS, RUBER BOOTS AND HEAVY RUBBER GLOVES. SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL. AVOID RAISING DUST. VENTILATE AREA AND WASH SPILL SIT E AFTER MATERIAL PICKUP IS COMPLETE. =========== Handling and Storage 

Handling and Storage Precautions: DO NOT BREATHE DUST. DO NOT GET IN

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EYES, ON SKIN, ON CLOTHING. IKKITANT. KEEP TIGHTLY CLOSED.

UNPLEASANT ODOR. STORE IN A COOL DRY PLACE. ====== Exposure Controls/Personal Protection ======== Respiratory Protection: NIOSH APPROVED RESPIRATOR. Ventilation: USE ONLY IN A CHEMICAL FUME HOOD. Protective Gloves: RUBBER GLOVES. Eye Protection: ANSI APPROVED CHEMICAL WORKERS GOGGLES . Other Protective Equipment: EYE WASH AND DELUGE SHOWER MEETING ANSI DESIGN CRITERIA . Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING. Supplemental Safety and Health ======== Physical/Chemical Properties ========== Melt/Freeze Pt:>260.C, 500.F M.P/F.P Text:260C TO 262C Appearance and Odor:OFF-WHITE TO TAN POWDER. ======== Stability and Reactivity Data ========== Stability Indicator/Materials to Avoid:YES STRONG OXIDIZING AGENTS. Hazardous Decomposition Products: HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: TOXIC FUMES OF: CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES, HYDROGEN CHLORIDE GAS. ======== Toxicological Information ============ Toxicological Information: TO THE BEST OF MFR'S KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED. ========= Ecological Information ============== Ecological: DATA NOT YET AVAILABLE. ====== Disposal Considerations =========== Waste Disposal Methods: DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS. ======== MSDS Transport Information =========== Transport Information: CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

======= Regulatory Information ==========

Federal Regulatory Information: EUROPEAN INFORMATION: IRRITANT R 36/37/38 IRRITATING TO EYES, REPIRATORY SYSTEM AND SKIN. S 26 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. S 36 WEAR S UITABLE PROTECTIVE CLOTHING.

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