HB Chemical Corporation

Material Safety Data Sheet

SECTION I CHEMICAL and COMPANY IDENTIFICATION

PRODUCT: ***DTDM***
CHEMICAL NAME: 4,4'-Dithiobismorpholine
COMMON/GENERIC NAME: **Sulfasan R**
CHEMICAL FAMILY: **Rubber Accelerator**
Distributor: **HB Chemical Corp. - Customer Service 330-920-8023**
EMERGENCY NUMBERS: ***CHEMTREC 800-424-9300***
CANUTEC(Canada) 613-996-6666

SECTION II COMPOSITION / INGREDIENT INFORMATION

	OSHA PEL	ACGIH TLV
COMPOSITION: 4,4' – Dithiobismorpholine (96-99%) C.A.S.# 103-34-4	None established	None established
White Mineral Oil (1-2%) C.A.S. # : 8042-47-5		
Morpholine (0.5% max.) – C.A.S. #: 110-91-8		

SECTION III/IV HAZARDS / FIRST AID PROCEDURES

*** Warning! Cumbustible Dust – explosion potential. Keep away from heat, sparks and flame.**

EMERGENCY OVERVIEW: A white powder or prill. which may cause allergic skin and respiratory reactions. May eye and skin irritation. Not known as an acute health Hazard. May react with nitrosating agents to form nitrosamines (potential cancer causing) Dust may present ignition source for explosion.
EYE: Flush eyes with water for 15 min. Call a physician if irritation develops**. Cause irritation (redness, swelling, pain and hazy vision possible)**
SKIN: Prolonged or repeated skin contact may cause irritation. Remove contaminated clothing and wash skin with soap and water. If in contact with hot product, treat as a burn**.**
INGESTION: Do not induce vomiting. Give 2 glasses of water (never give anything to a unconscious person. Call a physician. If victim does vomit keep head below waist to prevent vomit from entering the lungs.
INHALATION: Can be irritating to the eyes, nose and respiratory tract following prolonged exposure. Remove to fresh air; give artificial respiration or oxygen if necessary.
TOXICITY: No significant adverse effects expected. Not considered toxic/hazardous.
CARCINOGENICITY: Not listed by NTP, IARC or OSHA

IN ALL CASES OF EMERGENCY, CONTACT A PHYSICIAN

SECTION V FIRE AND EXPLOSION INFORMATION

FLASH POINT 154°C (309°F) COC

FIRE-FIGHTING PROCEDURES: Use Chemical foam, CO_2, Dry Chemical, water fog.
HAZARDOUS COMBUSTION PRODUCTS: This product will decompose under extreme temperatures forming oxides of carbon as well as Aromatic hydrocarbons and nitrogen oxides. Harmful vapors may be liberated
PROTECTIVE EQUIPMENT: Full eye protection and protective clothing are required for all indoor/outdoor fires and spills.

Explosion Hazards: Dust suspended in air in critical proportions with a presence of an ignition source presents an explosion hazard.

Min. explosion concentration: NA
Min. ignition energy: na
Maximum rate of pressure rise: NA
Max. Pressure of explosion: NA
Explosion severity: NA
Volume resistivity: na

SECTION VI SPILLS AND ENVIRONMENTAL INFORMATION

SPILL OR LEAK PRECAUTIONS: Wear appropriate protective clothing, gloves and equipment. Eliminate all sources of ignition. Contain spill . Transfer to secure containers and dispose of according to local and state regulations. Thought should always be given to collecting the material in such a manner that it could be recycled. Clean/scrub affected area with detergent. Prevent run-off into sewers or natural waterways. Spills in excess of the RQ must be reported to the local emergency response organizations. Major spills should also be reported to the National Response Center. Spills with potential to contaminate coastal waterways must be reported to the U.S. Coast Guard (800-424-8802)
WASTE DISPOSAL: All containers should be effectively labeled to facilitate the appropriate disposal or reclaim.

SECTION VII HANDLING AND STORAGE

Store in sealed containers in dry, ambient temperature conditions (less than 110°F). Perform packaging in well-ventilated area wearing protective eye shields and clothing.

SECTION VIII EXPOSURE CONTROLS AND PERSONAL PROTECTION

VENTILATION: Use only where sufficient ventilation exists to keep exposure levels of fumes and dust below recommended levels.
RESPIRATORY AND PERSONAL PROTECTION: Respirators should be selected when TWA exceeded. Safety glasses with side shields; gloves, boots and apron as appropriate.
FACILITIES: Consideration to properly engineered explosion suppression should be considered when large amounts of product are handled. There should be a shower facility and eyewash in the building where this product is being stored and handled. Exercise good chemical handling practice.

TVL/PEL: Not Available

SECTION IX PHYSICAL AND CHEMICAL INFORMATION

Appearance: yellowish white prills/pwd	Evaporation Rate: < 1 (butyl acetate=1)
Specific Gravity @25°C = 1.36	Melting Point: 123 C approx
Vapor Pressure: ND	Refractive Index 25°C: ND
Viscosity cPs (25°C) = ND	Solubility in Water: 0.0082 g/100ml @25C

SECTION X STABILITY AND REACTIVITY

Under normal storage conditions, this product a) is stable; b) will not polymerize or exotherm; c) should be kept away from extreme heat, strong oxidizers and bases; d) this product decomposes under high temperature and hydrolyses in humid conditions. Above 130 C material may become instable.

SECTION XI TOXICOLOGICAL INFORMATION

Routes of Entry: Eye, Inhalation and Ingestion and skin
Acute Dermal (Rabbit) >5010 mg/kg (LD50)
Acute Oral : 5600 mg/kg
Acute Inhalation: ND

Remarks: Eye and skin tests on rabbits came back moderate and negative respectively

SECTION XII ECOLOGICAL INFORMATION

Acute Fish Toxicity: 96Hr LC50 Rainbow Trout = 1.8 mg/l. 96Hr LC50 Bluegil Sunfish = 1.6 mg/l. 96Hr LC50 Fathead Minnow = 3.5 mg/l.
Acute Crustaceans Toxicity: 48Hr EC50 Daphnia Magna =4.5 mg/l
Acute Algae Toxicity: 96Hr EC50 Algae = 29.0 mg/l
Octanol/Water Coeffiecient: 310
Chemical Fate Information: Bioconcentration Factor: 29 (calculated). Aqueous Photolysis: T(1/2) = 3 hours.
BOD and COD: Not available
Biodegradability: Not available

Products of Biodegradation: No likely short term hazards of degradation however, potential long term may arise.

**** All above information was gained from Americas International MSDS.**

SECTION XIII DISPOSAL CONSIDERATIONS

This material is not a RCRA hazardous waste. Bury in a licence landfill or burn in an approved incinerator according to federal, state, and local regulations. Empty containers should be handled in a manner not to cause dusting during collection, transportation and disposal.

SECTION XIV TRANSPORTATION INFORMATION

DOT: Not Regulated:
CANADA TRANASPORT HAZ.GOODS: Not determined.
AIR (IATA/ICAO)**:** Not regulated. Label: Product trade name with chemical description.
EUROPEAN TRANSPORTATION: ADR/RID HAZ. CLASS: Not regulated.
US CUSTOMS: - HARMONIZED TARIFF CODE:

SECTION XV REGULATORY INFORMATION

OSHA:
SARA TITLE III: - 311/312 CATEGORIES: Immediate Delayed
" " - 313 Reportable ingredients: NA
CERCLA RQ: Not applicable.
RCRA Status: RCRA Hazardous Waste U244
TSCA REGULATORY: All intentional ingredients are listed in the TSCA Inventory.

CANADA WHMIS HAZARD SYMBOL AND CLASS: D2B Toxic Materials / Materials Causing other toxic effects.
CANADA INGREDIENT DISCLOSURE LIST: Does not contain any ingredients on the IDL. All intentional ingredients are on the DSL.

SECTION XVI OTHER INFORMATION

HMIS Label: Health: 1
Fire: 1
Reactivity: 0
Protection: E

Prepared: May 2008

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other or additional considerations. A good part of the information was gained from Americas International MSDS which was obtained from Flexsys..

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