

Material Safety Data Sheet

SECTION I

CHEMICAL and COMPANY IDENTIFICATION

PRODUCT: **ZDMC**
CHEMICAL NAME: Zinc Dimethyldithiocarbamate
COMMON/GENERIC NAME: Metasan, Ziram
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

COMPOSITION: Zinc Dimetyldithiocarbamate (97% min)
C.A.S.# 137-30-4
White Mineral Oil (2% max)
CAS#: 8042-47-5

SECTION III/IV

HAZARDS / FIRST AID PROCEDURES

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.
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. May cause alcohol intolerance (Antabuse Effect). May cause dizziness and headache with vomiting. Harmful if swallowed.
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. Monitor for signs of Respiratory distress. May be fatal if inhaled in large amounts of dust.. Can cause alcohol intolerance.
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 200°C (392 F) CC approx.

FIRE-FIGHTING PROCEDURES: Use Chemical foam, CO₂, 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

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vapors may be liberated

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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.

Autoignition Temp: 750 F or 400 C
Lower explosion concentration: 40 g/m³
Min. ignition energy: na
Maximum rate of pressure rise:
Max. Pressure of explosion:
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.

CERCLA Reportable Quantity: 10 pounds / 4.54 Kilograms (USA)

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.

Use respirators in accordance with the code of Federal regulations, labor part 1910.134. Use a positive pressure demand full face self contained breathing apparatus.

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.

Airborne Exposure Limits: OSHA PEL/8-Hr TWA: None established. Nuisance Dust. OSHA PEL/8Hr TWA= 15 mg/m³ (total dust). OSHA PEL/8 Hr TWA – 05 mg/m³ (respirable dust), ACGIH TLV/8 – Hr

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TWA = 10 mg/m³. White Mineral Oil is a dust suppressant additive only.

TVL/PEL: Not Available

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SECTION IX

PHYSICAL AND CHEMICAL INFORMATION

Appearance: off white pwd	Evaporation Rate: < 1 (butyl acetate=1)
Specific Gravity @20°C = 1.66	Melting Point: 238 C min. approx
Vapor Pressure: 7.5E-009 mm Hg @25C	Refractive Index 25°C: ND
Viscosity cPs (25°C) = ND	Solubility in Water: 65 mg/l @25 C

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) (Flexsys MSDS)
Acute Oral (rat): >650 mg/kg (LD50) (Flexsys MSDS)
Acute Inhalation: 4Hr LC50= 0.026 – 0.081 mg/l (rat)

Ingestion may cause alcohol intolerance (Antabuse Effect). May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation. Practically non-toxic if swallowed.

Remarks: Watch for allergic reaction on skin. See above issues with Ingestion and Inhalation.

Aggravated Conditions: Alcohol consumption problems. Pulmonary disorders. This material or its emissions may cause an allergic reaction or sensitization reaction and thereby aggravate systemic disease.

Carcinogenicity Comment: Not listed as a carcinogen or suspected carcinogen by NTP, IARC or OSHA.
Note: May react with nitrosating agents during rubber vulcanization to form Nitrosamines. Some of which could be considered carcinogens.

Genotoxicity: Both positive and negative effects have been reported in standard tests using animals and animal cells.

Reproductive/Developmental Toxicity: Animal studies have shown adverse effects – low birth weight of pups, maternal toxicity – on female animals. Animal studies have shown some adverse effects on male animals and offspring.

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SECTION XII

ECOLOGICAL INFORMATION

Ecotoxicity: Ecotoxicity in water (LC50): NA

Acute Fish Toxicity: 96Hr LC50 Rainbow Trout = .75 mg/l. 96Hr LC 50 Bluegill Sunfish = 1.20 mg/l. 5Hr LC50 Goldfish = 5.0 mg/l. 48Hr EC50 Daphia Magna = -.23 mg/l

Octanol Water Coefficient: Log P = 1.23 (Estimate)

BOD and COD: Not available

Biodegradability: Not available

Chemical Fate Information: Rapidly degraded by ultraviolet light, heat and moisture. Moderately bound to soil. Rapid hydrolysis in acidic water.

Other information: LD50 Redwing Blackbird – 00 mg/kg. Bioconcentration Factor = 90 (trout), 4.7 (Guppy). Hydrolysis Half-life: 0.25 HR @ pH 3.8, 9.1 HR @ pH5.7, 121 Hr @ pH 7.0, 433 Hr @ pH 8.0.

SECTION XIII

DISPOSAL CONSIDERATIONS

This material is a Hazardous Waste. Incineration recommended

Incineration by a permitted hazardous waste facility in accordance with all regulatory requirements is the preferred method of disposal. Empty containers can be rinsed with a suitable solvent/surfactant and steamed to remove residual product and fumes before disposal or reuse in accordance with applicable regulations. For spill clean-up procedures see Sect. VI.

The bag package may be considered a hazardous waste. Dispose of container according to local and national law.

SECTION XIV

TRANSPORTATION INFORMATION

DOT: UN2811, Toxic Solid. Organic, N.O.S., (Zinc Dimethyldithiocarbamate), 6.1,I

TDG (Canada) CANADA TRANSPORT HAZ.GOODS: See DOT

AIR (IATA/ICAO): Not determined. Label: Product trade name with chemical description.

EUROPEAN TRANSPORTATION: ADR/RID HAZ. CLASS: Not regulated.

US CUSTOMS: - HARMONIZED TARIFF CODE: 2930.20.2050

SECTION XV

REGULATORY INFORMATION

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

SARA TITLE III: - 311/312 CATEGORIES: Immediate

“ “ - 313 Reportable ingredients: As “Zinc Compounds”. De Mimimis concentration = 1.0%

CERCLA RQ: Not applicable.

RCRA Status: P205 – Acutely Hazardous Waste

TSCA REGULATORY: All intentional ingredients are listed in the TSCA Inventory.

CANADA WHMIS HAZARD SYMBOL AND CLASS: D1A Very Toxic Materials / Materials Causing Other Toxic Effects D2A Very Toxic Materials D2B Toxic Materials. Listed under the category “Zinc and its Compounds” NPRI Part I, Group I, ID # 231 (Canada). Minimum concentration to report 1%.

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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: 4
 Fire: 1
 Reactivity: 0
 Protection: E

Prepared: April 2009

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 Flexsys MSDS FLP0025.

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