

Eye Contact:

Flush eyes with water for at least 15 minutes. If irritation develops, consult a physician.

Skin Contact:

Remove contaminated clothing and shoes. Wash affected area with soap and water. If irritation develops, consult a physician. Wash contaminated clothing separately before reuse.

Inhalation:

Remove to fresh air. If symptoms develop, seek immediate medical attention. If not breathing, give artificial respiration, preferably mouth to mouth.

Ingestion:

Seek medical attention. Unless advised otherwise, induce vomiting by giving either Syrup of Ipecac followed by 2 glasses of water or by sticking finger down throat. Do not give anything by mouth if the person is drowsy, unconscious, or has no gag reflex. Note To Physician: Treatment should be directed at preventing absorption, administering to the symptoms as they occur, and providing supportive therapy.

5. FIRE AND EXPLOSION HAZARD DATA:

Flash Point: Not Applicable Test Method: Not Applicable
Explosive Limits: LEL (%) - Not Applicable UEL (%) - Not Applicable
Autoignition Temperature: Not Applicable

Extinguishing Media:

Small Fires: Use dry chemical, Carbon Dioxide, Halon, water spray, or foam.
Large Fires: Use water spray, fog, of alcohol foam.

Special Fire Fighting Procedures:

Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH Approved Positive Pressure Self-Contained Breathing Apparatus (SCBA) and full protective clothing.

Unusual Fire And Explosion Hazards:

May liberate irritating or toxic vapors during combustion or decomposition.

6. ENVIRONMENTAL AND DISPOSAL INFORMATION:**Response To Spills:**

Shovel or vacuum spilled product and place in closed containers for further handling and disposal. Do not flush to sewer, stream, or other bodies of water unless authorized to do so by appropriate government official.

Precautions:

If the airborne concentration exceeds established exposure limits (TLV or PEL), or if high airborne concentrations can occur, evacuate employees and ventilate the area. A supplied air respirator or self-contained breathing apparatus (SCBA), should be used for entry into enclosed spaces, or in areas with inadequate ventilation.

Disposal Methods:

If discarded in its original unused form, this product does not meet the definition of a RCRA hazardous waste under 40 CFR 261. Nevertheless, it should be managed (stored/treated/disposed/etc.) at an authorized facility, in compliance with all applicable federal, state, and local requirements. Be sure to contact appropriate government environmental agencies if further disposal guidance is required.

Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability:

- (1) Recycle or rework if at all feasible,
- (2) Incinerate at an authorized facility, or

(3) Treat at an acceptable waste treatment facility.

PTi© Paste - PART-B / Hardener

Page 3 of 5

7. HANDLING AND STORAGE:

Recommended Storage Conditions: Store in cool, dry, well ventilated area.

Empty Container Precautions:

This container can be hazardous when empty, because it can retain product residues. Therefore, do not reuse container for food, clothing, or products for human or animal consumption or where skin contact may occur.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Eye Protection:

Wear chemical splash goggles or safety glasses with side shields. An eye wash facility should be readily available.

Skin Protection:

Wear protective clothing and appropriate impervious gloves. Because a variety of protective gloves exist, always consult glove manufacturer to determine the proper type for specific operation.

Respiratory Protection:

Respiratory protection is not usually required under normal conditions of use.

When established airborne exposure limits are surpassed (see airborne exposure limits in this section), wear NIOSH/MSHA approved equipment. Determine the appropriate type equipment for specific application by consulting the respirator manufacturer. Observe the respirator use limitations specified by NIOSH/MSHA or the manufacturer.

High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator. In addition, respiratory protection programs must be in compliance with 29 CFR 1910.134.

Ventilation:

Maintain airborne concentrations below the established exposure limits (see airborne exposure limits in this section) by providing adequate ventilation. General (Dilution) ventilation may be acceptable. However, local exhaust ventilation is recommended when vapors, mists, or dusts can be released.

Personal Hygiene:

Wash thoroughly after handling, especially before eating, drinking, smoking, or using restroom facilities. Contaminated clothing and shoes should be thoroughly cleaned and dried before reuse.

Airborne Exposure Limits

Manganese Dioxide

ACGIH TLV-TWA: 5 as Mn mg/m³ Respirable Fraction

OSHA PEL: Not Established

Manganese Dioxide, as Mn(Fume). OSHA=3mg/m³ Respirable Fraction

STEL=3mg/m³

Airborne Exposure Limits

Thiram

ACGIH TLV-TWA: 1 mg/m³

OSHA PEL: 5 mg/m³

Note: Because of this product's physical composition, the release or generation of a dust is not expected to occur under normal conditions of use.

9. PHYSICAL DATA:

%Non-Volatiles (By Weight): 100

PTi© Paste - PART-B / Hardener

Page 4 of 5

ph: Not Applicable
Vapor Density (Air=1): >1
Solubility In Water: Insoluble
Evaporation Rate (n-Butyl Acetate=1): <1
Vapor Pressure (mmHg @ 25 Degrees C): 0.1
Specific Gravity (Water=1): 1.78
Approximate Boiling Point (@ 1 ATM): 300 F, 149 C
Note: The Physical Data Presented Above Are Typical Values And ShouldNot Be
Construed As A Specification

10. REACTIVITY DATA:

Stable Under Normal Conditions Of Storage And Use: Yes
Materials To Avoid: None known.
Hazardous Polymerization: Will not occur.

Thermal Decomposition Products:
If heated to high temperatures, this product may emit the following compounds:
Oxides of Sulfur.
Smoke, soot, & toxic fumes (e.g. Carbon Dioxide & Carbon Monoxide).

11. TOXICOLOGICAL INFORMATION:

The information in this section, though detailed, can be subject to misinterpretation. Therefore, it is essential the following information be interpreted by individuals trained in its evaluation.

Manganese Dioxide

Toxic Effects:
Skin or eye contact causes redness, pain, and irritation. Ingestion, especially chronic, produces severe abdominal pain, fever, nausea, and liver and kidney damage. Inhalation of dust or fume can cause coughing, fever, headache, and nausea.

Carcinogenicity - Listed By:
ACGIH: NO IARAC MONOGRAPHS: NO NTP ANNUAL REPORT: NO OSHA:NO

Thiram

Toxic Effects:
Causes eye and skin irritation. Can cause sensitization reactions in previously exposed individuals. Ingestion results in headaches, dizziness, fatigue, nausea, and diarrhea. Inhalation irritates the upper respiratory tract and causes coughing, sneezing, headaches, nausea, and dizziness. Can affect the nervous system, blood,liver and kidneys.

Acute Toxicity Studies:
Oral-Rat LD50: 560 mg/kg
Oral-Mouse LD50: 1350 mg/kg
Oral-Rabbit LD50: 210 mg/kg
Inhalation-/Rat LC50: 500 mg/m3/4-hours

Other Toxicity Studies:
In studies with animals, Thiram caused maternal and fetotoxicity, and male infertility. Thiram was found to be mutagenic to two strains of bacteria.

Carcinogenicity - Listed By:
ACGIH: NO IARC MONOGRAPHS: NO NTP ANNUAL REPORT: NO OSHA: NO

12. ECOLOGICAL DATA:

No data are available on this product.

13. TRANSPORTATION INFORMATION:

DOT Shipping Name: Not Regulated

PTi© Paste - PART-B / Hardener

Page 5 of 5

DOT Label: Not Applicable
DOT Identification No.: Not Applicable

For a two compartment container that contains PTi Paste Parts A and B, the following labeling requirements apply:

Non-regulated for shipments by air under 49 CFR, IATA/ICAO and IMO.

14. REGULATORY INFORMATION:

Toxic Substance Control Act (TSCA)

The chemical components of this product are contained on the Section 8(B) chemical substance inventory list (40 CFR 710).

SARA Title III Information

Section 313 - Toxic Chemicals

Pursuant to Section 313 of SARA Title III, this product contains one or more toxic chemicals that are present in a concentration in excess of 1 percent of the mixture (0.1 percent, if the listed toxic chemical is a carcinogen).

Manganese Dioxide

Section 302 - Extremely Hazardous Substances

Pursuant to Section 302 of SARA Title III, this product does not contain an extremely hazardous substance.

Section 311/312 - Hazard Categories

Pursuant to Section 311/312 of SARA Title III, the physical and health hazard categories for this product are identified below:

Fire Hazard: No
Sudden Release Of Pressure Hazard: No
Reactivity Hazard: **N**
Immediate (Acute) Health Hazard: Yes
Delayed (Chronic) Health Hazard: No

Hazardous Materials Information Review Regulations- Canada

This Material Safety Data Sheet provides information that complies with the requirements set forth under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Claim Of Exemption Registry No.: Not Applicable

Expiration Date: Not Applicable

16. ADDITIONAL INFORMATION:

A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be.

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