

This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Section 313 chemicals are identified below under APPLICABLE CHEMICAL CONTENTS.

This product contains Potassium Hydroxide, a substance subject to the Pennsylvania Worker Community Right-To-Know Act.

CHEMICAL IDENTITY

LABEL IDENTITY - MSA P/N 463323 Chemical Refill Kit for Catalytic Oxidizer, Model B

CHEMICAL NAME - Bottle 1) Aluminum Oxide; Palladium
 Bottle 2) Manganese Dioxide; Cupric Oxide

ADDITIONAL IDENTITIES - Bottle 1) Activated Alumina with Palladium
 Bottle 2) Hopcalite

FORMULA - Bottle 1) Al₂O₃; Pd
 Bottle 2) MnO₂; CuO

APPLICABLE CHEMICAL CONTENTS

| | <u>%</u> | <u>TWA</u> |
|--|----------|---|
| <u>Bottle 1 (55 GMS)</u> | | |
| Activated Alumina (CAS No. 1344-28-1) (ACGIH 1999) | >99 | 10 MG/M ³ |
| Palladium (NO CAS) | <1 | Not listed |
| <u>Bottle 2 (12 GMS)</u> | | |
| Manganese Dioxide (CAS 1313-13-9) (ACGIH 1999) | >70 | 0.2 MG/M ³ inorganic compounds as Mn |
| Cupric Oxide (CAS 1317-38-0) (ACGIH 1999) | <30 | 1 MG/M ³ dust and mists as Cu |

Title III Section 313 Chemical: Aluminum Oxide (CAS 1344-28-2); Manganese Dioxide (CAS No. 1313-13-9); Cupric Oxide (CAS No. 1317-38-0)

PHYSICAL AND CHEMICAL PROPERTIES

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| APPEARANCE AND ODOR - | Bottle 1: Brown Granules Bottle 2: Brown/Black Granules | | |
| SPECIFIC GRAVITY (H₂O = 1) - | Bottle 1: Approx. 4 Bottle 2: Approx 5.5 | SOLUBILITY IN WATER - | N/A |
| PERCENT VOLATILE BY VOLUME - | N/A | BOILING POINT - | N/A |
| VAPOR PRESSURE - | N/A | VAPOR DENSITY (AIR = 1) - | N/A |

PHYSICAL HAZARD INFORMATION

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| PHYSICAL HAZARD - | Oxidizer |
| CONDITIONS OR MATERIALS TO AVOID - | Flammable gases, organic solvents, ethylene oxide, organics with easily oxidized functional groups. |
| FLASH POINT - N/A LEL - N/A UEL - N/A | |
| UNUSUAL FIRE & EXPLOSION HAZARDS - | Product is a nonflammable oxidizing agent. It reacts exothermal and may ignite certain organics. |
| EXTINGUISHING MEDIA - | Product is not flammable. Apply media as needed for surrounding fire. |
| SPECIAL FIRE FIGHTING PROCEDURES - | Wear pressure demand type self-contained breathing apparatus with full facepiece. |

HEALTH HAZARD INFORMATION

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| HEALTH HAZARDS - | Toxic. Irritant. Repeated inhalation for a period of a few months or longer may be harmful and may cause lung irritation or central nervous system disorders. |
| SIGNS AND SYMPTOMS OF EXPOSURE - | Symptoms of chronic manganese poisoning include headache, sleeplessness, weakness, personality changes, double vision, impaired hearing and mental confusion. Copper oxide and aluminum oxide may cause lung irritation. Aluminum oxide dust is mildly irritation to the skin and mucous membranes. Prolonged exposure may cause pulmonary fibrosis, bronchitis, emphysema. |
| PRIMARY ROUTES OF ENTRY - | Inhalation. Ingestion. |
| TARGET ORGANS - | Skin , lungs, mucous membranes, central nervous system, liver, kidneys. |
| MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE - | No Information |
| EXPOSURE LIMITS- | 1999 ACGIH Manganese 0.2 MG/M ³ inorganic compounds as Mn 1999 ACGIH Copper dusts and mists 1 MG/M ³ 1999 ACGIH Alumina dust 10 MG/M ³ |
| CARCINOGENICITY DATA - | Not listed in RTECS. |
| TUMORIGENIC DATA- | SEE RTECS reference for Aluminum Oxide. |
| EMERGENCY & FIRST AID PROCEDURES - | <u>Eyes</u> - Immediately flush eyes with plenty of water for 15 minutes, holding Eyes open and raising eyelids to flush underlid areas. See a Physician. <u>Skin</u> - Wash with soap and water. If irritation persist, see a Physician. <u>Inhalation</u> - Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. GET MEDICAL ATTENTION IMMEDIATELY. |

Ingestion - Give two glasses of water to dilute chemical and encourage vomiting. GET MEDICAL ATTENTION IMMEDIATELY.

SAFE HANDLING AND USE

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| HYGIENIC PRACTICES - | Avoid dusting conditions. Avoid breathing dust. Wash hands after using product. |
| PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT - | If dust is generated by the repair operation, wear a NIOSH approved respirator. |
| PROCEDURE FOR SPILL OR LEAK CLEANUP- | Avoid dusting conditions. Sweep up spilled catalyst and place in metal container. Deactivate the catalyst by soaking with water. |
| STORAGE - | Store in a dry place away from combustible materials. |
| WASTE DISPOSAL - | Dispose in accordance with current local, state and federal laws and regulations. |

CONTROL MEASURES

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| PERSONAL PROTECTIVE EQUIPMENT - | When dust exposure is possible. Wear a NIOSH approved respirator and chemical protective goggles. |
| WORK PRACTICES - | Follow refill instructions with the Catalytic Oxidizer Instruction Manual. Avoid dusting conditions. When dust exposure is possible, wear a NIOSH approved respirator and chemical protective goggles. |
| DATE OF PREPARATION - | Rev. 3, June 1999 |

WARNING: This is a hazardous chemical product. By following the directions and warnings provided with this product, the hazards associated with the use of this product can be greatly reduced but never entirely eliminated. Mine Safety Appliances Company makes no warranties, expressed or implied, with respect to this product and EXPRESSLY DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. Users assume all risks in handling, using or storing this product.