

MATERIAL SAFETY DATA SHEET

KROMA RED OXIDE RP-4097 PRIMARIES

Version Number 1.0 Revision Date 05/07/2004

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

| Telephone:Emergency telephone:number | | Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
|--------------------------------------|---|---|
| Product name | : | KROMA RED OXIDE RP-4097 PRIMARIES |
| Product code | : | CC10053185 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight % |
|------------------|------------|----------|
| Titanium dioxide | 13463-67-7 | 1 - 5 |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

POTENTIAL HEALTH EFFECTS

| Routes of Exposure: | : Inhalation, Ingestion, Skin contact |
|---|---|
| Acute exposure | |
| Inhalation Ingestion Eyes | Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to eyes. |
| Skin | : Experience shows no unusual dermatitis hazard from routine handling. |
| Chronic exposure | : Refer to Section 11 for Toxicological Information. |
| Medical Conditions Aggravated by Exposure: | : None known. |



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| Inhalation | Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice. | | |
|--|---|---------------------|--|
| Ingestion | Do not induce vomiting without medical advice. When symptopersist or in all cases of doubt seek medical advice. Rinse immediately with plenty of water, also under the eyelids, least 15 minutes. If eye irritation persists, seek medical attention | | |
| Eyes | | | |
| Skin | : Wash off with soap and plenty of water. If skin irrita medical attention. | ation persists seek | |
| | 5. FIRE-FIGHTING MEASURES | | |
| Flash point | : Not applicable | | |
| Flammable Limits Upper explosion limit sower explosion limit Autoignition temperature Suitable extinguishing media | Not applicable Not applicable Not applicable Carbon dioxide blanket, water spray, dry powder, fo | amnone. | |
| Special Fire Fighting Procedures Unusual Fire/Explosion | Fullface self-contained breathing apparatus (SCBA) used in pos pressure mode should be worn to prevent inhalation of airborne contaminants. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrog | | |
| Hazards | (NOx), other hazardous materials, and smoke are all | | |
| | ACCIDENTAL RELEASE MEASURES | | |
| Personal precautions | : Wear appropriate personal protection during cleanup impervious gloves, boots and coveralls. | , such as | |
| Environmental precautions | : Should not be released into the environment. The pr be allowed to enter drains, water courses or the soil. | oduct should not | |
| Methods for cleaning up | : Clean up promptly by sweeping or vacuum. Packag plastic, cardboard or metal containers for disposal. R of this MSDS for proper disposal methods. | | |
| | 7. HANDLING AND STORAGE | | |
| Handling | : Take measures to prevent the build up of electrostati only in areas with appropriate exhaust ventilation. | c charge. Heat | |
| Storage | : Keep containers dry and tightly closed to avoid mois | sture absorption | |

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| 8. H | EXPOSURE | CONTROLS / PERSON | NAL PROTECTION | | |
|--|-----------|---|---|----------------------------------|---|
| Respiratory protection | : N | No personal respiratory protective equipment normally required. | | | |
| Eye/Face Protection | : S | Safety glasses with side-shields. | | | |
| Hand protection | : P | rotective gloves. | | | |
| Skin and body protection | : L | ong sleeved clothing. | | | |
| Additional Protective Measures | : S | : Safety shoes. | | | |
| General Hygiene Considerations | | Iandle in accordance with Vash hands before breaks | | | afety practice. |
| Engineering measures | | leat only in areas with app ppropriate exhaust ventila | | lation. | Provide |
| Exposure limit(s) | | | | | |
| Components | Value | Exposure time | Exposure ty | Exposure type | |
| Titanium dioxide | 10 mg/m3 | Time Weighted Averag | | <u> </u> | List: ACGIH |
| | 15 mg/m3 | PEL: | Total dust | • | OSHA Z1 |
| | 9. PHYSIC | CAL AND CHEMICAL | PROPERTIES | | |
| Form Appearance Color Odor Melting point/range Boiling Point: Water solubility | | ets Sp b B V faint V determined V applicable pl | vaporation rate pecific Gravity: ulk density apor pressure apour density H | : Not : Not : Not : Not | applicable determined established applicable applicable applicable |
| | 10. 8 | STABILITY AND REAC | CTIVITY | | |
| Stability | : S | table. | | | |
| Hazardous Polymerization | n : W | Vill not occur. | | | |
| Conditions to avoid | | Leep away from oxidizing ecomposition, do not over | | e. To a | void thermal |
| | т | ncompatible with strong a | | nto | |



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Hazardous decomposition products

: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

| CAS-No. | Chemical Name | Effect | Target Organ | | | |
|----------------------------------|---|---|---------------------|--|--|--|
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. | | | |
| | 12. ECOLOGIO | CAL INFORMATION | 1 | | | |
| Persistence and degrada | ability : Not readily b | iodegradable. | | | | |
| Environmental Toxicity | | : Chemicals are not readily available as they are bound within the matrix of the polymer. | | | | |
| Bioaccumulation Poten | | : Chemicals are not readily available as they are bound within the matrix of the polymer. | | | | |
| Additional advice | : No data avail | lable | | | | |
| | 13. DISPOSAL | CONSIDERATIONS | 5 | | | |
| Product Contaminated packagir | possible recy generator of classification applicable fe g : Recycling is has the respo | Like most thermoplastic plastics the product can be recycled. Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. | | | | |
| | | and local regulations. | | | | |
| | 14. TRANSPO | RT INFORMATION | | | | |
| U.S. DOT Classificatio | n : Not regulated | l for transportation. | | | | |
| ICAO/IATA (air) | : Refer to spec | : Refer to specific regulation. | | | | |
| IMO / IMDG (maritime | e) : Refer to spec | ific regulation. | | | | |
| | 15. REGULAT | ORY INFORMATION | N | | | |
| | | | | | | |

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| | | |
| US Regulations: | | |
| OSHA Status | : | Classified as hazardous based on components. |
| TSCA Status | : | All components of this product are listed on or exempt from the TSCA Inventory. |
| US. EPA CERCLA Hazardous | Sub | stances (40 CFR 302) |
| Not applicable | | |
| California Proposition 65 | : | This product does not contain a substance listed by California Prop 65 |
| SARA Title III Section 302 Ext | rem | ely Hazardous Substance |
| Not applicable | | |
| SARA Title III Section 313 Tox | ic (| Chemicals: |
| Not applicable Canadian Regulations: | | |
| National Pollutant Relea | se Iı | nventory (NPRI) |
| Not applicable | | |
| WHMIS Classification | : | Not controlled. |
| DSL | : | All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt. |
| National Inventories: | | |
| Australia AICS | : | Listed |
| China IECS | : | Listed |
| Europe EINECS | : | Listed |
| Japan ENCS | : | Listed |
| Korea KECI | : | Listed |
| Philippines PICCS | : | Listed |
| | | 16. OTHER INFORMATION |
| | | |



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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material when used in combination with any other materials and/or in any particular process or processing conditions.