MATERIAL SAFETY DATA SHEET

RED 188C

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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 | : | RED 188C |
| Product code | : | CC10061634 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight % |
|------------|-----------|----------|
| Iron oxide | 1309-37-1 | 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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| | 4. FIRST AID MEASURES |
|--|--|
| 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 symptoms persist or in all cases of doubt seek medical advice. |
| Eyes | : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention. |
| Skin | : Wash off with soap and plenty of water. If skin irritation persists seel medical attention. |
| | 5. FIRE-FIGHTING MEASURES |
| Flash point | : Not applicable |
| Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards | Not applicable Not applicable Not applicable Carbon dioxide blanket, water spray, dry powder, foamnone. Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. |
| Personal precautions | : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls. |
| Environmental precautions | : Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil. |
| Methods for cleaning up | : Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section 1: of this MSDS for proper disposal methods. |
| | 7. HANDLING AND STORAGE |
| Handling | : Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation. |
| Storage | : Keep containers dry and tightly closed to avoid moisture absorption |

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| 8. E | XPOSURE | CONTROLS / PERSO | NAL P | ROTECTION | |
|---------------------------------------|--------------------------|---|---------------------|------------------------|--------------------------|
| Respiratory protection | : N | No personal respiratory p | rotectiv | e equipment normally r | equired. |
| Eye/Face Protection | : S | afety glasses with side-s | hields. | | |
| Hand protection | : P | Protective gloves. | | | |
| Skin and body protection | : I | ong sleeved clothing. | | | |
| Additional Protective Measures | : S | afety shoes. | | | |
| General Hygiene Considerations | | : Handle in accordance with good industrial hygiene and safety practice Wash hands before breaks and at the end of workday. | | | |
| Engineering measures | | Ieat only in areas with ap ppropriate exhaust ventil | | | Provide |
| Exposure limit(s) | | | | | |
| Components | Value | Exposure time | | Exposure type | List: |
| Iron oxide | 5 mg/m3 | Time Weighted Avera (TWA): | age | Dust and fume. as Fe | ACGIH |
| | 9. PHYSI | CAL AND CHEMICAI | | PERTIES | |
| | | | | | |
| Form | : Solie | | | | applicable |
| Appearance | : Pelle | | | 2 | determined |
| Color Odor | : RED | | Bulk der | | established |
| Melting point/range | : Very | | | | applicable applicable |
| Boiling Point: | | | уарош pH | 2 | applicable |
| | : Inso | | 211 | . 100 | applicable |
| Water solubility | . 11150 | 14010 | | | |
| Water solubility | | | | ту | |
| Water solubility | 10. 9 | STABILITY AND REA | CTIVI | 11 | |
| Stability | | STABILITY AND REA | ACTIVI | 11 | |
| | : S | | ACTIVI | 11 | |
| Stability | : S 1 : V : K | table. | g agents | | void thermal |
| Stability Hazardous Polymerization | : S . : V : K d | table. Vill not occur. Keep away from oxidizing | g agents erheat. | and open flame. To a | void thermal |



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products

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(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 |
|-----------|---------------|------------------|---------------------|
| 1309-37-1 | Iron oxide | Systemic effects | Respiratory system. |

| 12. ECOLOGICAL INFORMATIO | Ν |
|---------------------------|---|
| | |

| Persistence and degradability | : | Not readily biodegradable. | |
|---|-----|---|--|
| Environmental Toxicity | : | Chemicals are not readily available as they are bound within the polymer matrix. | |
| Bioaccumulation Potential | : | Chemicals are not readily available as they are bound within the polymer matrix. | |
| Additional advice | : | No data available | |
| | 13 | . DISPOSAL CONSIDERATIONS | |
| Product | : | 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. | |
| Contaminated packaging | : | 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. | |
| 14. TRANSPORT INFORMATION | | | |
| U.S. DOT Classification ICAO/IATA (air) IMO / IMDG (maritime) | : | Not regulated for transportation. Refer to specific regulation. Refer to specific regulation. | |
| | | | |
| | 15. | REGULATORY INFORMATION | |
| US Regulations: | | | |

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| RED 1886 | | | | | | | |
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| | | | | | | | |
| 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 Extr Not applicable | SARA Title III Section 302 Extremely Hazardous Substance Not applicable | | | | | | |
| SARA Title III Section 313 Tox | ic (| Chemicals: | | | | | |
| Not applicable Canadian Regulations: | | | | | | | |
| National Pollutant Release | se I | 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 | : | Not determined | | | | | |
| 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.