

MATERIAL SAFETY DATA SHEET

RALPH ORANGE

Version Number 1.0 Revision Date 06/09/2003

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

| NON-EMERGENCY TELEPHONE | : | Product Stewardship (770) 271-5902 |
|-------------------------------|---|--|
| Emergency telephone number | : | CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
| Product name | : | RALPH ORANGE |
| Product code | : | CC10038091 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

| Components | CAS-No. | Weight % |
|------------------|------------|----------|
| Titanium dioxide | 13463-67-7 | 10 - 30 |

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. |



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| Medical Conditions : None known. Aggravated by Exposure: | | | | |
|---|---|--|--|--|
| | 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 | Not applicable Not applicable Not relevant Carbon dioxide blanket, Water spray, dry powder, foam. | | | |
| Special Fire Fighting Procedures Unusual Fire/Explosion Hazards | Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. None | | | |
| | 6. ACCIDENTAL RELEASE MEASURES | | | |
| 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 sho 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 12 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. | | | |



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 Storage
 : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Respiratory protection | : | No personal respiratory protective equipment normally required. |
|-----------------------------------|---|---|
| Eye/Face Protection | : | Safety glasses with side-shields. |
| Hand protection | : | Protective gloves. |
| Skin and body protection | : | Long sleeved clothing. |
| Additional Protective Measures | : | Safety 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 | : | Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery. |

Exposure limit(s)

| Components | Value | Exposure time | Exposure type | List: |
|------------------|----------|-----------------------|---------------|---------|
| Titanium dioxide | 10 mg/m3 | Time Weighted Average | | ACGIH |
| | | (TWA): | | |
| Titanium dioxide | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |

|). PHYSICAL AND CHE | MICAL PROPERTIES | |
|---|--|--|
| Solid Pellets ORANGE Very faint Not determined Not applicable Insoluble | Evaporation rate Specific Gravity Bulk density Vapor pressure Vapor density pH | Not applicable. Not determined Not established Not applicable Not applicable Not applicable |
| 10. STABILITY AN | ND REACTIVITY | |
| : Stable. | | |
| : Will not occur. | | |
| 1 5 | | lame. To avoid thermal |
| | Solid Pellets ORANGE Very faint Not determined Not applicable Insoluble 10. STABILITY AN Stable. Will not occur. Keep away from one | Pellets Specific Gravity ORANGE Bulk density Very faint Vapor pressure Not determined Vapor density Not applicable pH Insoluble 10. STABILITY AND REACTIVITY : Stable. |



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|--|--|--|--|---|
| | • | | | |
| Incompatible Materials | : | Incompatible w | ith strong acids and o | xidizing agents. |
| Hazardous decomposition products | on : | | | xide (CO), oxides of nitrogen d smoke are all possible. |
| | 11. ' | FOXICOLOGIC | CAL INFORMATIO | N |
| | | | | |
| This mixture has not been health data for the indiv | | | | re effects listed are based on existing |
| <u>Toxicity Overview</u> This product contains th | e following | components whi | ch in their pure form | have the following characteristics: |
| CAS-No. | Chem | ical Name | Effect | Target Organ |
| 13463-67-7 | Titanium d | | Systemic effects | Respiratory system. |
| | 12 | 2 ECOLOGICA | L INFORMATION | |
| | | | | |
| Persistence and degrada | bility : | Not readily biod | legradable. | |
| Environmental Toxicity | ty : Chemicals are not readily available as they are bound within the matrix of the polymer. | | s they are bound within the matrix | |
| Bioaccumulation Potent | tial : Chemicals are not readily available as they are bound within the matrix of the polymer. | | | |
| Additional advice | : | No data availab | le. | |
| | 13 | 3. DISPOSAL C | ONSIDERATIONS | |
| Product | : | possible, recyclingenerator of wa classification, tr | ing is preferred to dis ste material has the re | t can be recycled. Where posal or incineration. The esponsibility for proper waste posal in accordance with ad local regulations. |
| Contaminated packagin | g : | has the responsi | bility for proper wast accordance with appli | . The generator of waste material e classification, transportation icable federal, state/provincial |
| | 1 | 4. TRANSPOR | FINFORMATION | |
| | | | | |
| U.S. DOT Classification | n : | Refer to specific | c regulation. | |
| ICAO/IATA | : | Refer to specific | c regulation. | |
| IMO / IMDG | : | Refer to specific | c regulation. | |
| | | | | |



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| | 15. REGULATORY INFORMATION |
|---|--|
| US Regulations: | |
| OSHA Status | : Classified as hazardous based on components. |
| TSCA Status | : All components of this product are listed on or exempt from the TSC. Inventory. |
| US. EPA CERCLA Hazardous | ubstances (40 CFR 302) |
| Not applicable | |
| | |
| California Proposition 65 | : This product does not contain a substance listed by California Prop 63 |
| SARA Title III Section 302 Ex | emely Hazardous Substance |
| Not applicable | |
| SARA Title III Section 313 To | c Chemicals: |
| Not applicable Canadian Regulations: | |
| National Pollutant Rele | e Inventory (NPRI) |
| Not applicable | |
| WHMIS Classification | : D2B |
| 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. |



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16. OTHER INFORMATION

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 used in combination with any other materials or in any process, unless specified in the text.