

MATERIAL SAFETY DATA SHEET

ORANGE

Version Number 1.0 Revision Date 09/25/2002 Page 1 of 6 Print Date 11/6/2011

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 | : | ORANGE |
| Product code | : | CC10023646 |
| 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 | 1 - 5 |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. 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 | | |
| Skin | Resin particles, nee other metrifications, are mechanically initiating to eyes. 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 o 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 | |
| - | 11 | |
| Flammable Limits | | |
| Upper explosion limit | : Not applicable | |
| Lower explosion limit | : Not applicable : Not relevant | |
| Autoignition temperature | | |
| Suitable extinguishing media | : Carbon dioxide blanket, Water spray, dry powder, foam. | |
| Special Fire Fighting | : Fullface self-contained breathing apparatus (SCBA) used in positive | |
| Procedures | pressure mode should be worn to prevent inhalation of airborne | |
| Tiocodulos | contaminants. | |
| Unusual Fire/Explosion Hazards | : 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 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 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. | |
| Storage | : Keep containers dry and tightly closed to avoid moisture absorption | |



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| | aı | nd contamination. Keep in | a dry, cool place. | |
| 8. I | EXPOSURE | CONTROLS / PERSON | AL PROTECTION | |
| Respiratory protection | : N | o personal respiratory pro | tective equipment norm | ally 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 Averag (TWA): | e Dust. | ACGIH |
| | 10 mg/m3 15 mg/m3 | | e Dust. Total dust. | |
| Titanium dioxide | 15 mg/m3 | (TWA): | Total dust. | |
| Titanium dioxide | 15 mg/m3 | (TWA): PEL: CAL AND CHEMICAL 1 | Total dust. | OSHA Z |
| Titanium dioxide Titanium dioxide | 15 mg/m3 9. PHYSIC | (TWA): PEL: CAL AND CHEMICAL I | Total dust. | |
| Titanium dioxide Titanium dioxide Form | 15 mg/m3 9. PHYSIC : Solic : Pelle | (TWA): PEL: CAL AND CHEMICAL I I Ev ts Sp | PROPERTIES aporation rate : | OSHA Z |
| Titanium dioxide Titanium dioxide Form Appearance | 15 mg/m3 9. PHYSIC : Solid : Pelle : ORA | (TWA): PEL: CAL AND CHEMICAL I t Ev ts Sp NGE Bu | Total dust. PROPERTIES aporation rate : ecific Gravity : lk density : | Not applicable. Not determined Not established |
| Titanium dioxide Titanium dioxide Form Appearance Color | 15 mg/m3 9. PHYSIC : Solic : Pelle : ORA : Very | (TWA): PEL: CAL AND CHEMICAL I I Ev ts Sp NGE Bu faint Vz | Total dust. PROPERTIES aporation rate : ecific Gravity : | Not applicable. Not determined |
| Titanium dioxide Titanium dioxide Form Appearance Color Odor | 15 mg/m3 9. PHYSIC : Solid : Pelle : ORA : Very : Not o | (TWA): PEL: CAL AND CHEMICAL I I Ev ts Sp NGE Bu faint Vz | Total dust. PROPERTIES aporation rate : ecific Gravity : lk density : por pressure : por density : | Not applicable. Not determined Not established Not applicable |
| Titanium dioxide Titanium dioxide Form Appearance Color Odor Melting point/range | 15 mg/m3 9. PHYSIC : Solid : Pelle : ORA : Very : Not o | (TWA): PEL: CAL AND CHEMICAL I I Ev ts Sp NGE Bu faint Va determined Va applicable pH | Total dust. PROPERTIES aporation rate : ecific Gravity : lk density : por pressure : por density : | Not applicable. Not determined Not established Not applicable Not applicable |
| Titanium dioxide Titanium dioxide Titanium dioxide Form Appearance Color Odor Melting point/range Boiling Point: | 15 mg/m3 9. PHYSIC : Solid : Pelle : ORA : Very : Not d : Insol | (TWA): PEL: CAL AND CHEMICAL I I Ev ts Sp NGE Bu faint Va determined Va applicable pH | Total dust. PROPERTIES aporation rate : ecific Gravity : lk density : por pressure : por density : i : | Not applicable. Not determined Not established Not applicable Not applicable |
| Titanium dioxide Titanium dioxide Titanium dioxide Form Appearance Color Odor Melting point/range Boiling Point: | 15 mg/m3 9. PHYSIC : Solid : Pelle : ORA : Very : Not d : Not a : Insol | (TWA): PEL: CAL AND CHEMICAL I I Events vets Sp NGE But r faint Vat determined Vat applicable pH | Total dust. PROPERTIES aporation rate : ecific Gravity : lk density : por pressure : por density : i : | Not applicable. Not determined Not established Not applicable Not applicable |
| Titanium dioxide Titanium dioxide Titanium dioxide Form Appearance Color Odor Melting point/range Boiling Point: Water solubility | 15 mg/m3 9. PHYSIC : Solid : Pelle : ORA : Very : Not d : Insol 10. S : S | (TWA): PEL: CAL AND CHEMICAL I I Ev its Sp NGE Bu if faint Va determined Va applicable pH uble STABILITY AND REAC | Total dust. PROPERTIES aporation rate : ecific Gravity : lk density : por pressure : por density : i : | Not applicable. Not determined Not established Not applicable Not applicable |
| Titanium dioxide Titanium dioxide Titanium dioxide Form Appearance Color Odor Melting point/range Boiling Point: Water solubility Stability | 15 mg/m3 9. PHYSIC : Solid : Pelle : ORA : Very : Not a : Insol 10. S n : W : K | (TWA): PEL: CAL AND CHEMICAL I I Ev is Sp NGE Bu faint Va determined Va applicable pH uble STABILITY AND REAC table. Ev | PROPERTIES aporation rate : ecific Gravity : lk density : por pressure : por density : TIVITY | Not applicable. Not determined Not established Not applicable Not applicable |



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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 | I | | |
| Persistence and degrada | bility : Not readily bi | iodegradable. | | | |
| Environmental Toxicity | Chemicals are of the polyme | | s they are bound within the matrix | | |
| Bioaccumulation Potent | | : Chemicals are not readily available as they are bound within the matrix of the polymer. | | | |
| Additional advice | : No data availa | able. | | | |
| | 13. DISPOSAL | CONSIDERATIONS | | | |
| Product Contaminated packagin | g : Recycling is phase the response of the recycling is phase the response of | cling is preferred to dis waste material has the r transportation and dis leral, state/provincial a preferred when possible nsibility for proper was n accordance with app | ct can be recycled. Where sposal or incineration. The esponsibility for proper waste posal in accordance with nd local regulations. e. The generator of waste materia te classification, transportation licable federal, state/provincial | | |
| | 14. TRANSPO | RT INFORMATION | | | |
| | | | | | |
| U.S. DOT Classification | n : Refer to speci | ific regulation. | | | |
| ICAO/IATA | : Refer to speci | ific regulation. | | | |
| IMO / IMDG | : Refer to speci | ific regulation. | | | |
| | 15. REGULATO | DRY 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 the TSCA inventory or are exempt. |
| 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. |
| Canadian Regulations: | |
| WHMIS Classification : | D2B |
| WHMIS Ingredient Disclosu | |
| CAS-No. 150-13-0 | |
| DSL : | Listed. |
| National Inventories: | |
| Australia AICS : | Not determined. |
| China IECS : | Listed. |
| Europe EINECS : | Not determined. |
| Japan ENCS : | Not determined. |
| Korea KECI : | Not determined. |
| 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 used in combination with any other materials or in any process, unless specified in the text.