MATERIAL SAFETY DATA SHEET GREEN PEARL

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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 | : | GREEN PEARL |
| Product code | : | CC10046082 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight % |
|------------------|------------|----------|
| Mica | 12001-26-2 | 10 - 30 |
| 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

| : Inhalation, Ingestion, Skin contact |
|--|
| |
| 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.Experience shows no unusual dermatitis hazard from routine handling. |
| : Refer to Section 11 for Toxicological Information. |
| : 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 case doubt seek medical advice. | s of | |
| Ingestion | : Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice. | otoms | |
| Eyes | Rinse immediately with plenty of water, also under the eyelids, for least 15 minutes. If eye irritation persists, seek medical attention. | | |
| Skin | : Wash off with soap and plenty of water. If skin irritation persists s medical attention. | seel | |
| | 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 applicable Carbon dioxide blanket, Water spray, Dry powder, Foam. | | |
| Special Fire Fighting Procedures | : Fullface self-contained breathing apparatus (SCBA) used in positir pressure mode should be worn to prevent inhalation of airborne contaminants. | ve | |
| Unusual Fire/Explosion Hazards | : Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. | | |
| | 5. 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 be allowed to enter drains, water courses or the soil. | not | |
| Methods for cleaning up | : Clean up promptly by sweeping or vacuum. Package all material plastic, cardboard or metal containers for disposal. Refer to Section 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. | at | |
| Storage | : Keep containers dry and tightly closed to avoid moisture absorption | m | |

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| 8. H | EXPOSURE | CONTROLS / PERSONAL | PROTECTION | | | |
|--------------------------------------|--|--|---|---|--|--|
| Respiratory protection | : N | Jo personal respiratory protectiv | ve equipment normally r | required. | | |
| Eye/Face Protection | : S | afety glasses with side-shields | | | | |
| Hand protection | : P | : Protective gloves | | | | |
| Skin and body protection | : L | : Long sleeved clothing | | | | |
| Additional Protective Measures | : S | : Safety shoes | | | | |
| General Hygiene Considerations | | Handle in accordance with good Vash hands before breaks and a | | afety practice | | |
| Engineering measures | | Heat only in areas with appropri propriate exhaust ventilation a | | Provide | | |
| Exposure limit(s) Components | Value | Exposure time | Exposure type | List: | | |
| Mica | 20 mppcf | PEL: | Total dust. | OSHA | | |
| Whea | 3 mg/m3 | | | OSIIA | | |
| | 5 mg/m5 | Time Weighted Average (TWA): | Respirable fraction. | ACGIH | | |
| | 3 mg/m3 | (TWA): Time Weighted Average | Respirable fraction. | ACGIH MX OEL | | |
| Titanium dioxide | | (TWA): Time Weighted Average (TWA): Time Weighted Average | Respirable fraction. | | | |
| Titanium dioxide | 3 mg/m3 | (TWA): Time Weighted Average (TWA): | Total dust. | MX OEL | | |
| Titanium dioxide | 3 mg/m3 10 mg/m3 | (TWA): Time Weighted Average (TWA): Time Weighted Average (TWA): | | MX OEL ACGIH | | |
| Titanium dioxide | 3 mg/m3 10 mg/m3 15 mg/m3 | (TWA): Time Weighted Average (TWA): Time Weighted Average (TWA): PEL: Time Weighted Average | Total dust. | MX OEL ACGIH OSHA Z1 | | |
| Titanium dioxide | 3 mg/m3 10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 | (TWA): Time Weighted Average (TWA): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit | Total dust. as Ti as Ti | MX OEL ACGIH OSHA Z1 MX OEL | | |
| Form | 3 mg/m3 10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 9. PHYSIC : Solid | (TWA): Time Weighted Average (TWA): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO | Total dust. as Ti as Ti PERTIES | MX OEL ACGIH OSHA Z1 MX OEL MX OEL | | |
| Form Appearance | 3 mg/m3 10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 9. PHYSIC : Solid : pellet | (TWA): Time Weighted Average (TWA): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): | Total dust. as Ti as Ti PPERTIES ration rate : Not c Gravity : Not | MX OEL ACGIH OSHA Z1 MX OEL MX OEL | | |
| Form Appearance Color | 3 mg/m3 10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 9. PHYSIC : Solid : pelle : GRE | (TWA): Time Weighted Average (TWA): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO d Evapor ets Specifi EEN Bulk do | Total dust. as Ti as Ti PERTIES ration rate : Not c Gravity : Not ensity : Not | MX OEL ACGIH OSHA Z1 MX OEL MX OEL applicable determined established | | |
| Form Appearance Color Odour | 3 mg/m3 10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 9. PHYSIC : Solid : pelle : GRE : Very | (TWA): Time Weighted Average (TWA): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO d Evapor ets Specifi EEN Bulk day / faint Vapout | Total dust. as Ti as Ti PERTIES ration rate : Not c Gravity : Not ensity : Not r pressure : Not | MX OEL ACGIH OSHA Z1 MX OEL MX OEL applicable determined established applicable | | |
| Form Appearance Color | 3 mg/m3 10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 20 mg/m3 9. PHYSIC : Solid : pelle : GRE : Very : Not | (TWA): Time Weighted Average (TWA): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO d Evapor ets Specifi EEN Bulk day / faint Vapout | Total dust. as Ti as Ti PERTIES ration rate : Not c Gravity : Not ensity : Not r pressure : Not r density : Not | MX OEL ACGIH OSHA Z1 MX OEL MX OEL applicable determined established | | |

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| Stability | : | Stable. |
|----------------------------------|---|--|
| Hazardous Polymerization | : | Will not occur. |
| Conditions to avoid | : | Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat. |
| Incompatible Materials | : | Incompatible with strong acids and oxidizing agents. |
| 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 |
|------------|------------------|------------------|---------------------|
| 12001-26-2 | Mica | Systemic effects | Respiratory system. |
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|------------|------------------|------|------|-----|
| 13463-67-7 | Titanium dioxide | no | 2B | no |

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

2A - The component is probably carcinogenic to humans.

2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

1 - The component is known to be a human carcinogen.

2 - The component is reasonably anticipated to be a human carcinogen.

12. ECOLOGICAL INFORMATION

| 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. |

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| possib genera classif | le recycling is preferred tor of waste material has | cs the product can be recy to disposal or incineration | |
|-----------------------------|---|--|--|
| | | the responsibility for pro- ad disposal in accordance cial and local regulations | oper waste with |
| has the and dis | e responsibility for prope sposal in accordance wit | essible. The generator of r waste classification, tra h applicable federal, state | nsportation |
| 14. TRA | NSPORT INFORMAT | ION | |
| | | | |
| : Not re | gulated for transportation | 1. | |
| : Refer t | to specific regulation. | | |
| : Refer t | to specific regulation. | | |
| 15. REGU | JLATORY INFORMA | TION | |
| | | | |
| : Classif | fied as hazardous based of | on components. | |
| | | are listed on or exempt fr | rom the TSCA |
| is Substances (| (40 CFR 302) | | |
| CAS-No. | RQ for component | RQ for Mixture/Product | |
| 1308-38-9 | 010 lbs | 1,814 LB | |
| | | | |
| n : Not ap | plicable | | |
| Extremely Haza | ardous Substance | | |
| | 14. TRA : Not replay : Refer the second sec | Not regulated for transportation Refer to specific regulation. Refer to specific regulation. 15. REGULATORY INFORMA Classified as hazardous based of All components of this product Inventory. us Substances (40 CFR 302) CAS-No. RQ for component 1308-38-9 010 lbs | I4. TRANSPORT INFORMATION i Not regulated for transportation. : Refer to specific regulation. : Refer to specific regulation. : Refer to specific regulation. I5. REGULATORY INFORMATION : Classified as hazardous based on components. : All components of this product are listed on or exempt for Inventory. as Substances (40 CFR 302) CAS-No. RQ for component RQ for Mixture/Product 1308-38-9 010 lbs 1,814 LB n : Not applicable |

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| | | | | | |
| | | | | | |
| | | | | | |
| SARA Title III Section 313 T | oxic C | hemicals: | | | |
| Unless specific chemicals are | identif | ied under this se | ection, this produc | ct is Not Applicabl | e under this regu |
| - | | | - | | - |
| Canadian Regulations: | | | | | |
| National Pollutant Rel | ease In | ventory (NPRI) | | | |
| Chemical Name Chromium (III) oxide | | | CAS-No. 1308-38-9 | Weight % 0.10 - 1.00 | NPRI ID# 69 |
| Chromium (III) oxide | | | 1308-38-9 | 0.10 - 1.00 | 09 |
| DSL National Inventories: | : | | ts of this product a t (DSL) or are exe | are on the Canadia empt. | n Domestic |
| National Inventories. | | | | | |
| Australia AICS | : | Listed | | | |
| China IECS | : | Listed | | | |
| Europe EINECS | : | Listed | | | |
| Japan ENCS | : | Not determined | l | | |
| Korea KECI | : | Listed | | | |
| Philippines PICCS | : | Listed | | | |
| | | | | | |

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.