MATERIAL SAFETY DATA SHEET PUREOLOGY GREEN

Version Number 1.0 Revision Date 12/03/2004

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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 | : | PUREOLOGY GREEN |
| Product code | : | CC10061996 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight % |
|-------------------|------------|----------|
| Silica, amorphous | 7631-86-9 | 1 - 5 |
| 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

| Routes of Exposure: | Inhalation, Ingestion, Skin contact | | |
|---|--|--|--|
| Acute exposure | | | |
| Inhalation Ingestion Eyes Skin | Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Particulates, like other inert materials can be mechanically irritating. 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 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 least 15 minutes. If eye irritation persists, seek medical attention. |
| Skin | : Wash off with soap and plenty of water. If skin irritation persists se 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, foamnone. |
| Special Fire Fighting Procedures Unusual Fire/Explosion | 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 |
| Hazards | (NOx), other hazardous materials, and smoke are all possible. |
| | 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 scoop or vacuum. Package all material in 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. |
| Storage | : Keep containers dry and tightly closed to avoid moisture absorption |

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| | EXPOSURE | CONTROLS / PERSO | NAL PROTE | CTION | |
|---|--|---|--|---|---|
| Respiratory protection | | o personal respiratory pr usty conditions occur we | | | |
| Eye/Face Protection | : safety glasses | | | | |
| Hand protection | : Protective gloves. | | | | |
| Skin and body protection | : Long sleeved clothing. | | | | |
| Additional Protective Measures | : Safety shoes. | | | | |
| General Hygiene Considerations | : Wash hands and face before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice for diagnostics. | | | | |
| Engineering measures | : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery. | | | | |
| | | | | | |
| Exposure limit(s) | | | | | |
| Components | Value | Exposure time | | posure type | List: |
| - | 20 mppcf | PEL: | Т | 'otal dust. | OSHA |
| Components Mica | 20 mppcf 3 mg/m3 | PEL: Time Weighted Avera (TWA): | ige Respir | otal dust. rable fraction. | OSHA ACGIH |
| Components | 20 mppcf 3 mg/m3 20 mppcf | PEL: Time Weighted Avera (TWA): PEL: | ige Respi | otal dust. rable fraction. otal dust. | OSHA ACGIH OSHA |
| Components Mica | 20 mppcf 3 mg/m3 20 mppcf 20 mppcf | PEL: Time Weighted Avera (TWA): PEL: PEL: | ige Respir | otal dust. rable fraction. | OSHA ACGIH OSHA Z3 |
| Components Mica Silica, amorphous | 20 mppcf 3 mg/m3 20 mppcf 20 mppcf 10 mg/m3 | PEL: Time Weighted Avera (TWA): PEL: PEL: Time Weighted Avera (TWA): | ge Respin | otal dust. rable fraction. otal dust. | OSHA ACGIH OSHA Z3 ACGIH |
| Components Mica | 20 mppcf 3 mg/m3 20 mppcf 20 mppcf 10 mg/m3 10 mg/m3 | PEL: Time Weighted Avera (TWA): PEL: PEL: Time Weighted Avera (TWA): Time Weighted Avera (TWA): | ge Respiner | otal dust. rable fraction. otal dust. otal dust. | OSHA ACGIH OSHA Z3 ACGIH ACGIH |
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| Components Mica Silica, amorphous | 20 mppcf 3 mg/m3 20 mppcf 20 mppcf 10 mg/m3 10 mg/m3 15 mg/m3 | PEL: Time Weighted Avera (TWA): PEL: PEL: Time Weighted Avera (TWA): Time Weighted Avera (TWA): PEL: | ge Respinered T | Total dust. rable fraction. Total dust. Total dust. Total dust. Total dust. | OSHA ACGIH OSHA Z3 ACGIH ACGIH |
| Components Mica Silica, amorphous | 20 mppcf 3 mg/m3 20 mppcf 20 mppcf 10 mg/m3 10 mg/m3 15 mg/m3 | PEL: Time Weighted Avera (TWA): PEL: PEL: Time Weighted Avera (TWA): Time Weighted Avera (TWA): | ge Respinered T | Total dust. rable fraction. Total dust. Total dust. Total dust. Total dust. | OSHA ACGIH OSHA Z3 ACGIH ACGIH |
| Components Mica Silica, amorphous | 20 mppcf 3 mg/m3 20 mppcf 20 mppcf 10 mg/m3 10 mg/m3 15 mg/m3 9. PHYSIC : Solid | PEL: Time Weighted Avera (TWA): PEL: PEL: Time Weighted Avera (TWA): Time Weighted Avera (TWA): PEL: PEL: CAL AND CHEMICAL | ge Respinent of the second sec | otal dust. rable fraction. 'otal dust. | OSHA ACGIH OSHA Z3 ACGIH ACGIH OSHA Z2 applicable |
| Components Mica Silica, amorphous Titanium dioxide Form Appearance | 20 mppcf 3 mg/m3 20 mppcf 20 mppcf 10 mg/m3 10 mg/m3 15 mg/m3 9. PHYSIC : Solid : flake | PEL: Time Weighted Avera (TWA): PEL: PEL: Time Weighted Avera (TWA): Time Weighted Avera (TWA): PEL: CAL AND CHEMICAL s S | T .ge Respination .ge T .ge T .ge T .ge T .ge T .ge T | otal dust. rable fraction. 'otal dust. | OSHA ACGIH OSHA Z3 ACGIH ACGIH OSHA Z2 applicable determined |
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| Components Mica Silica, amorphous Titanium dioxide Form Appearance Color Odor | 20 mppcf 3 mg/m3 20 mppcf 20 mppcf 10 mg/m3 10 mg/m3 15 mg/m3 9. PHYSIC : Solid : flake : GRE : Very : Great | PEL: Time Weighted Avera (TWA): PEL: PEL: Time Weighted Avera (TWA): Time Weighted Avera (TWA): PEL: CAL AND CHEMICAL I E s S EN E faint V ter than 130 °C V applicable p | T .ge Respination .ge T | otal dust. rable fraction. otal dust. otal dust. otal dust. otal dust. Otal dust. ES te : Not | OSHA ACGIH OSHA Z3 ACGIH ACGIH OSHA Z1 oSHA Z1 |

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| Stability | : | Stable. |
|----------------------------------|---|--|
| Hazardous Polymerization | : | Will not occur. |
| Conditions to avoid | : | 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), dense black smoke. |

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 |
|------------|-------------------|------------------|---------------------------|
| 7631-86-9 | Silica, amorphous | Irritant | Eyes, Respiratory system. |
| 12001-26-2 | Mica | Systemic effects | Respiratory system. |
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |

| | 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 | : Not inherently biodegradable. |
| Additional advice | : Chemicals are not readily available as they are bound within the polymer matrix. |
| | 13. DISPOSAL CONSIDERATIONS |
| Product | : 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 materia has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. |
| | 14. TRANSPORT INFORMATION |

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| U.S. DOT Classification | : Refer to specific regulation. |
|---|---|
| ICAO/IATA (air) | : Refer to specific regulation. |
| IMO / IMDG (maritime) | : Refer to specific regulation. |
| | 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 TSCA Inventory. |
| US. EPA CERCLA Hazardous | Substances (40 CFR 302) |
| Not applicable | |
| | |
| | : This product does not contain a substance listed by California Prop 65. |
| California Proposition 65 | |
| 65 | |
| 65 SARA Title III Section 302 Ext Not applicable | remely Hazardous Substance |
| 65 SARA Title III Section 302 Ext Not applicable SARA Title III Section 313 Tox Not applicable | remely Hazardous Substance |
| 65 SARA Title III Section 302 Ext Not applicable SARA Title III Section 313 Tox | remely Hazardous Substance |
| 65 SARA Title III Section 302 Ext Not applicable SARA Title III Section 313 Tox Not applicable Canadian Regulations: | remely Hazardous Substance |
| 65 SARA Title III Section 302 Ext Not applicable SARA Title III Section 313 Tox Not applicable Canadian Regulations: National Pollutant Relea | remely Hazardous Substance |
| 65 SARA Title III Section 302 Ext Not applicable SARA Title III Section 313 Tox Not applicable Canadian Regulations: National Pollutant Relea Not applicable | remely Hazardous Substance tic Chemicals: se Inventory (NPRI) |
| 65 SARA Title III Section 302 Ext Not applicable SARA Title III Section 313 Tox Not applicable Canadian Regulations: National Pollutant Relea Not applicable WHMIS Classification DSL | remely Hazardous Substance tic Chemicals: se Inventory (NPRI) : Not controlled. : All components of this product are on the Canadian Domestic |
| 65 SARA Title III Section 302 Ext Not applicable SARA Title III Section 313 Tox Not applicable Canadian Regulations: National Pollutant Relea Not applicable WHMIS Classification | remely Hazardous Substance tic Chemicals: se Inventory (NPRI) : Not controlled. : All components of this product are on the Canadian Domestic |
| 65 SARA Title III Section 302 Ext Not applicable SARA Title III Section 313 Tox Not applicable Canadian Regulations: National Pollutant Relea Not applicable WHMIS Classification DSL National Inventories: | remely Hazardous Substance tic Chemicals: se Inventory (NPRI) : Not controlled. : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt. |

| POLYONE CORPORATION material safety data sheet | | |
|---|--------------------------------------|--|
| 1 | | |
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| : Not determined | | |
| : Listed | | |
| : Listed | | |
| | HEET I Not determined Listed | |

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 when used in combination with any other materials and/or in any particular process or processing conditions.