

MATERIAL SAFETY DATA SHEET

GRAY Q716-1-3

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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 | : | GRAY Q716-1-3 |
| Product code | : | CC10002779 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

| Components | CAS-No. | Weight % |
|--------------------------------|------------|----------|
| Carbon black | 1333-86-4 | 1 - 5 |
| Rutile, antimony chromium buff | 68186-90-3 | 1 - 5 |
| Titanium dioxide | 13463-67-7 | 10 - 30 |

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 fumes may be released upon heating or crosslinking and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect his employee from exposure. See Sections 3 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS

| Routes of Exposure: | : Inhalation, Ingestion, Skin contact |
|----------------------------|---|
| Acute exposure | |
| Inhalation Ingestion | Resin particles, like other inert materials, can be mechanically irritating.May be harmful if swallowed. |
| Eyes | : 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. |





GRAY Q716-1-3 Version Number 1.0 Page 2 of 7 Revision Date 01/29/2002 Print Date 11/3/2011 **Medical Conditions** : None known. Aggravated by Exposure: 4. FIRST AID MEASURES Move to fresh air in case of accidental inhalation of fumes from Inhalation overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice. Do not induce vomiting without medical advice. When symptoms Ingestion : 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 seek medical attention. **5. FIRE-FIGHTING MEASURES** Flash point : Not applicable Flammable Limits Upper explosion limit Not applicable : Lower explosion limit Not applicable : Autoignition temperature Not relevant : 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 contaminants. Unusual Fire/Explosion None • Hazards 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 13 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. EXF | 'OSUF | RE 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. |

: 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)

General Hygiene

Considerations

| Components | Value | Exposure time | Exposure type | List: |
|---|-----------|------------------------------|--------------------------------|---------|
| Carbon black | 3.5 mg/m3 | Time Weighted Average (TWA): | Total dust. as carbon black | ACGIH |
| | 3.5 mg/m3 | PEL: | Total dust. as carbon black | OSHA Z1 |
| Rutile, antimony 0.5 mg/m3 chromium buff | | Time Weighted Average (TWA): | Total dust. as Cr | ACGIH |
| | 0.5 mg/m3 | PEL: | Total dust. as Cr | OSHA Z1 |
| | 0.5 mg/m3 | Time Weighted Average (TWA): | Dust. as Sb | ACGIH |
| | 0.5 mg/m3 | PEL: | Total dust. as Sb | OSHA Z1 |
| Titanium dioxide 10 mg/m3 | | Time Weighted Average (TWA): | Total dust. | ACGIH |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Color Odor Melting point/range Boiling Point: Water solubility

Solid
Pellets
GREY
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



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| | 10. STABILITY AND REACTIVITY | | | | |
|----------------------------------|--|--|--|--|--|
| 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 |
|------------|-----------------------------------|------------------|---------------------------|
| 1333-86-4 | Carbon black | Systemic effects | Eyes, Respiratory system. |
| 68186-90-3 | Rutile, antimony chromium buff | Irritant | Eyes, Skin. |
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |

LC50 / LD50

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

| CAS-No. | Chemical Name | Route | Value | Species |
|-----------|---------------|-------------|---------------|---------|
| 1333-86-4 | Carbon black | Oral LD50 | >15,400 mg/kg | rat |
| | | Dermal LD50 | > 3 gm/kg | rabbit |

Carcinogenicity:

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

| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|-----------|---------------|------|------|-----|
| 1333-86-4 | Carbon black | 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.



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

Additional Health Hazard Information:

Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

Additional Health Hazard Information:

Rutile, antimony chromium buff 68186-90-3 Can cause eye irritation. Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: antimony measles (a red, pimply rash).

| | 12. ECOLOGICAL INFORMATION | | | |
|--|---|--|--|--|
| Persistence and degradability | : Not readily biodegradable. | | | |
| Environmental Toxicity | : Chemicals are not readily available as they are bound within the matrix of the polymer. | | | |
| Bioaccumulation Potential | : Chemicals are not readily available as they are bound within the mat of the polymer. | | | |
| Additional advice | : No data available. | | | |
| | 13. DISPOSAL CONSIDERATIONS | | | |
| Product Contaminated packaging | Like most thermoplastics the product can be recycled. Where possibl 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. 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 | | | |
| U.S. D.O.T. / CA T.D.G. Classification (Non-bulk ground) | : Not regulated for transportation. | | | |
| ICAO/IATA | : Not regulated for transportation. | | | |
| | | | | |



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| IMO / IMDG | : | Not regulated for | transportation. | | | |
|------------------------------------|----------------------------------|---------------------------|------------------------|------------------------|---------------|--|
| | 15 | 5. REGULATORY | INFORMATION | 1 | | |
| US Regulations: | | | | | | |
| OSHA Status | : | Classified as haza | rdous based on cor | nponents. | | |
| TSCA Status | : | All components of exempt. | f this product are lis | sted on the TSCA inv | entory or are | |
| California Proposition 65 | : | This product does | not contain a subst | ance listed by Califor | rnia Prop 65. | |
| SARA Title III Section 313 Tox | cic (| Chemicals: | | | | |
| Chemical Name | | | CAS-No. | Weight % |] | |
| | CHROMIUM III COMPOU | | | 4.40 | | |
| ANTIMONY CO | ANTIMONY COMP | | | | | |
| Canadian Regulations: | Canadian Regulations: | | | | | |
| WHMIS Classification | : | D2A | | | | |
| WHMIS Ingredient Disc | WHMIS Ingredient Disclosure List | | | | | |
| CAS-No. 1333-86-4 68186-90-3 | | | | | | |
| DSL | : | Listed. | | | | |
| National Inventories: | | | | | | |

Australia AICS : Listed.

China IECS : Listed.

Europe EINECS : Not determined.

Japan ENCS : Not determined.

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