

MATERIAL SAFETY DATA SHEET

GEON W2405 GRY 2444

Version Number 1.1 Revision Date 09/12/2002 Page 1 of 7 Print Date 11/6/2011

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

| NON-EMERGENCY TELEPHONE | : | Product Stewardship (440)-930-1395 |
|-------------------------------|---|--|
| Emergency telephone number | : | CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
| Product name | : | GEON W2405 GRY 2444 |
| Product code | : | W240500B2444 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

| Components | CAS-No. | Weight % |
|---------------------------------|------------|----------|
| Antimony trioxide | 1309-64-4 | 1 - 5 |
| Lead oxide sulfate (Pb4O3(SO4)) | 12202-17-4 | 1 - 5 |
| Titanium dioxide | 13463-67-7 | 1 - 5 |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. See Sections 3 and 11 for additional details. This product may contain residual vinyl chloride monomer (VCM) (CAS number 75-01-4) below 8.5 ppm (0.00085%). OSHA considers VCM a suspect carcinogen and regulates it under 29 CFR 1910.1017. It is unlikely, under normal working conditions with adequate ventilation, that the OSHA action level and the OSHA exposure limits will be exceeded for residual VCM. However, the user should take the necessary precautions (e.g. mechanical ventilation, local exhaust ventilation, air-monitoring, respiratory protection, etc.) to ensure airborne levels of any vapors including VCM or dusts that may be released during heating or processing are below regulated levels.

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 eves. |
| Skin | : Experience shows no unusual dermatitis hazard from routine handling. |



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| Medical Conditions Aggravated by Exposure: | : | None known. |
|---|------|---|
| | | 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 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 applicable. |
| Suitable extinguishing media | : | water, dry powder, foam, carbon dioxide (CO2). |
| 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 Hazards | : | May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. |
| | 6. A | CCIDENTAL 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. |



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| | , | 7. HANDLING AND STORAGE |
| Handling | : | Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials. |
| Storage | : | Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place. |
| 8. EXI | POSUR | E 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. |

| Components | Value | Exposure time | Exposure type | List: |
|------------------------------------|---------------|------------------------------|---------------|---------|
| Antimony trioxide | 0.5 mg/m3 | PEL: | as Sb | OSHA Z1 |
| Lead oxide sulfate (Pb4O3(SO4)) | 0.05 mg/m3 | Time Weighted Average (TWA): | as Pb | OSHA |
| | 0.03 mg/m3 | OSHA Action level: | as Pb | OSHA |
| | 0.05 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| Titanium dioxide | 10 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| Titanium dioxide | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance : Solid: Pellets, powder

Evaporation rate Specific Gravity

Not applicable.Not determined



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| Color Odor Melting point/range Boiling Point: Water solubility | : GREYBulk density: Not established: Very faintVapor pressure: Not applicable: Not determinedVapor density: Not applicable: Not applicablepH: Not applicable: Insoluble: Insoluble |
| | 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. Avoid contact with acetal homopolymers and acetal copolymers during processing. |
| Hazardous decomposition products | Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. Prolonged heating (approximately 30 minutes or more) above 392 °F (200 °C) or short term heating at 482 °F (250 °C) may result in product decomposition and evolution of carbon monoxide and hydrogen chloride. |
| | 11 TOVICOLOCICAL INFORMATION |

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 |
|------------|------------------------------------|------------------|--|
| 1309-64-4 | Antimony trioxide | Systemic effects | Eyes, Respiratory system. |
| | | sensitizer | Skin. |
| 12202-17-4 | Lead oxide sulfate (Pb4O3(SO4)) | Systemic effects | reproductive system, central nervous system. |
| 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 |
|-----------|-------------------|-----------|----------------|---------|
| 1309-64-4 | Antimony trioxide | Oral LD50 | > 34,600 mg/kg | rat |

Carcinogenicity:

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



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| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|------------|------------------------------------|------|------|-----|
| 1309-64-4 | Antimony trioxide | no | 2B | no |
| 12202-17-4 | Lead oxide sulfate (Pb4O3(SO4)) | 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.

Additional Health Hazard Information:

Antimony trioxide 1309-64-4 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).

Additional Health Hazard Information:

Lead oxide sulfate (Pb4O3(SO4)) 12202-17-4 Systemic effects include neurotoxic, teratogenic, fetotoxic and reproductive with abdominal pain, anemia, pallor, decreased hand grip strength with characteristic "wrist drop".

| Persistence and degradability | : Not readily biodegradable. |
|-------------------------------|--|
| Environmental Toxicity | : Adverse ecological impact is not known or expected under normal use |
| Bioaccumulation Potential | : No data available. |
| Additional advice | : Not applicable |
| | 13. DISPOSAL CONSIDERATIONS |
| Product | : Like most thermoplastics the product can be recycled. 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. 1 | DOT Classification | : Not regu | lated for transp | ortation. | | |
| ICAC | D/IATA | : Not regu | lated for transp | ortation. | | |
| IMO | / IMDG | : Not regu | lated for transp | ortation. | | |
| | | 15. REGUI | LATORY INFO | ORMATIO | N | |
| US R | legulations: | | | | | |
| | OSHA Status | : Classifie | ed as hazardous | based on co | omponents. | |
| | TSCA Status | : All com exempt. | ponents of this p | product are l | isted on the | TSCA inventory |
| US. E | EPA CERCLA Hazard | lous Substances (4 | 0 CFR 302) | | | |
| | Chemical Name | CAS-No. | % in Product | RQ for co | omponent | RQ for Mixture/Produc |
| | Antimony trioxide | 1309-64-4 | 2.7424 | 1,000 lbs | | 36,464 LB |
| SAR/ | 65 A Title III Section 313 Chemical N | chemica other rep 3 Toxic Chemicals | l known in the S productive harm : | State of Cali | | product contains use birth defects tt % |
| | | Y COMPOUNDS | | 9-64-4 | 02.74 | |
| | | ESE COMPOUND | os 6841 | 2-38-4 | 00.11 | |
| | | Y COMPOUNDS M III COMPOUN | DS 6819 | 6-90-3 | 00.37 | |
| | CHROWIIU | | DO 10010 | 0-70-J | 00.57 | |
| | | Y COMPOUNDS | | | 01.77 | |
| | | | | 02-17-4 | 01.77 | |
| Canao | | Y COMPOUNDS | | | 01.77 | |
| Canao | LEAD CON | Y COMPOUNDS APOUNDS, INOR | | | 01.77 | |
| Canad | LEAD CON | <u>Y COMPOUNDS</u> <u>APOUNDS, INOR</u> tion : D2A | | | 01.77 | |

CAS-No

| CAS-No. |
|-----------|
| 1309-64-4 |
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| 12202-17-4 | | |
|-----------------------|---|-----------------|
| DSL | : | Listed. |
| National Inventories: | | |
| Australia AICS | : | Not determined. |
| China IECS | : | Not determined. |
| Europe EINECS | : | Not determined. |
| Japan ENCS | : | Not determined. |
| Korea KECI | : | Not determined. |
| Philippines PICCS | : | Not determined. |

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.