

MATERIAL SAFETY DATA SHEET

GRAY MAS 330

Version Number 1.0 Revision Date 08/05/2003

Page 1 of 7 Print Date 11/11/2011

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 | : | GRAY MAS 330 |
| Product code | : | EM10004490 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

| Components | CAS-No. | Weight % |
|------------------|------------|----------|
| Styrene | 100-42-5 | 0.1 - 1 |
| 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 or processing. The end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions.

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 eyes. |
| Skin | : Experience shows no unusual dermatitis hazard from routine handling. |
| Chronic exposure | : Refer to Section 11 for Toxicological Information. |



MATERIAL SAFETY DATA SHEET

GRAY MAS 330

Version Number 1.0 Revision Date 08/05/2003 Page 2 of 7 Print Date 11/11/2011

| Aggravated by Exposure: | |
|--|---|
| | 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 seel 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 water, dry powder, foam, carbon dioxide (CO2). |
| Special Fire Fighting Procedures Unusual Fire/Explosion Hazards | Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. 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 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. |



MATERIAL SAFETY DATA SHEET GRAY MAS 330

Version Number 1.0 Revision Date 08/05/2003

Storage

Page 3 of 7 Print Date *11/11/2011*

: Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

8. EXPOSURE 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. |

Exposure limit(s)

| Components | Value | Exposure time | Exposure type | List: |
|------------------|---------------------|-----------------------------------|---------------|---------|
| Styrene | 20 ppm 85 | Time Weighted Average | Vapor. | ACGIH |
| | mg/m3 | (TWA): | | |
| | 40 ppm 170 mg/m3 | Short Term Exposure Limit (STEL): | Vapor. | ACGIH |
| Styrene | 100 ppm | Time Weighted Average (TWA): | Vapor. | OSHA Z2 |
| | 200 ppm | Ceiling Limit Value: | Vapor. | OSHA Z2 |
| | 600 ppm | Maximum concentration: | Vapor. | OSHA Z2 |
| 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 Color Odor Melting point/range Boiling Point: Water solubility
- Solid
 Pellets, slabs
 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

10. STABILITY AND REACTIVITY



MATERIAL SAFETY DATA SHEET GRAY MAS 330

Version Number 1.0 Revision Date 08/05/2003

Page 4 of 7 Print Date 11/11/2011

| Stability | : | Stable. |
|----------------------------------|---|--|
| Hazardous Polymerization | : | Will not occur. |
| Conditions to avoid | : | To avoid thermal decomposition, do not overheat. |
| Incompatible Materials | : | Strong acids, oxidizing and reducing 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 |
|------------|------------------|------------------|---------------------------------|
| 100-42-5 | Styrene | Irritant | Eyes, Respiratory system. |
| | | Systemic effects | Eyes, Skin, Respiratory system, |
| | | | Liver, 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 |
|----------|---------------|-----------|-------------|---------|
| 100-42-5 | Styrene | LC50 | 12 gm/m3 | rat |
| | | Oral LD50 | 2,650 mg/kg | rat |

Carcinogenicity:

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

| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|----------|---------------|------|------|-----|
| 100-42-5 | Styrene | 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:



MATERIAL SAFETY DATA SHEET

GRAY MAS 330

Version Number 1.0 Revision Date 08/05/2003 Page 5 of 7 Print Date *11/11/2011*

Styrene 100-42-5 Irritating to eyes, skin, and respiratory tract with many CNS effects such as narcosis, cramps and respiratory tract paralysis.

| of the polymer. Bioaccumulation Potential : Chemicals are not readily available as they are bound within the of the polymer. Additional advice : Not applicable I3. 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 was 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 1 has the responsibility for proper waste classification, transporta and disposal in accordance with applicable federal, state/provin and local regulations. U.S. DOT Classification : Not regulated for transportation. ICAO/IATA : Not regulated for transportation. IMO / IMDG : Not regulated for transportation. US Regulations: OSHA Status : Classified as hazardous based on components. | | 12. ECOLOGICAL INFORMATION |
|--|------------------------------|---|
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| Additional advice : Not applicable I3. 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 was 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 n has the responsibility for proper waste classification, transporta and disposal in accordance with applicable federal, state/provin and local regulations. U.S. DOT Classification : Not regulated for transportation. ICAO/IATA : Not regulated for transportation. IMO / IMDG : Not regulated for transportation. US Regulations: OSHA Status : Classified as hazardous based on components. | nvironmental Toxicity | Chemicals are not readily available as they are bound within the matri of the polymer. |
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| IMO / IMDG : Not regulated for transportation. 15. REGULATORY INFORMATION US Regulations: OSHA Status : Classified as hazardous based on components. | .S. DOT Classification | Not regulated for transportation. |
| IS. REGULATORY INFORMATION US Regulations: OSHA Status : Classified as hazardous based on components. | CAO/IATA | Not regulated for transportation. |
| US Regulations: OSHA Status : Classified as hazardous based on components. | MO / IMDG | Not regulated for transportation. |
| OSHA Status : Classified as hazardous based on components. | 1 | 15. REGULATORY INFORMATION |
| | S Regulations: | |
| | OSHA Status | Classified as hazardous based on components. |
| TSCA Status : All components of this product are listed on or exempt from the Inventory. | TSCA Status | : All components of this product are listed on or exempt from the TSCA Inventory. |
| US. EPA CERCLA Hazardous Substances (40 CFR 302) | S. EPA CERCLA Hazardous Su | bstances (40 CFR 302) |
| Not applicable | Not applicable | |
| | | |



MATERIAL SAFETY DATA SHEET

GRAY MAS 330

Version Number 1.0 Revision Date 08/05/2003 Page 6 of 7 Print Date 11/11/2011

| 65 | 1 : | WARNING! This California to cause | | chemical know | vn to the State of |
|--|-----------------------|--|---------------------|----------------|--------------------|
| SARA Title III Section 302 E | Extrem | ely Hazardous Substa | ance | | |
| Not applicable | | | | | |
| SARA Title III Section 313 T | oxic (| Chemicals: | | | |
| | | | CAC N | XX7 1. / | 0/ |
| Chemical Name STYRENE | | | CAS-No. 100-42-5 | Weight 0.19 | 2 % |
| Canadian Regulations: | ease I | nventory (NPRI) | | | |
| Chemical Name | | • | CAS-No. | Weight % | NPRI ID# |
| Styrene | | | 100-42-5 | 0.19 | 214 |
| WHMIS Ingredient Di CAS-No. | isclosu | ıre List | | | |
| | isclosu | rre List All components of Substances List (DS | | 1 the Canadian | Domestic |
| CAS-No. 100-42-5 | | All components of | | 1 the Canadian | Domestic |
| CAS-No. 100-42-5 DSL | : | All components of | | n the Canadian | Domestic |
| CAS-No. 100-42-5 DSL National Inventories: | : | All components of Substances List (DS | | n the Canadian | Domestic |
| CAS-No. 100-42-5 DSL National Inventories: Australia AICS | : | All components of Substances List (DS Listed. | | n the Canadian | Domestic |
| CAS-No. 100-42-5 DSL National Inventories: Australia AICS China IECS | : : : | All components of Substances List (DS Listed. Listed. | | 1 the Canadian | Domestic |
| CAS-No. 100-42-5 DSL National Inventories: Australia AICS China IECS Europe EINECS | : : : : | All components of Substances List (DS Listed. Listed. Not determined. | | n the Canadian | Domestic |
| CAS-No. 100-42-5 DSL National Inventories: Australia AICS China IECS Europe EINECS Japan ENCS | : : : : : | All components of Substances List (DS Listed. Listed. Not determined. Not determined. | | n the Canadian | Domestic |



MATERIAL SAFETY DATA SHEET **GRAY MAS 330**

Version Number 1.0 Revision Date 08/05/2003

Page 7 of 7 Print Date *11/11/2011*

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.