PolvOne

MATERIAL SAFETY DATA SHEET GEON X15021313801 BLACK 2880

Version Number 1.0 Revision Date 07/09/2007 Page 1 of 8 Print Date 11/29/2011

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

| Telephone Emergency telephone | : | Product Stewardship (440) 930-1395 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
|----------------------------------|---|---|
| Product name | : | GEON X15021313801 BLACK 2880 |
| Product code | : | VC10005035 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |
| | | |

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight % |
|------------------|-----------|----------|
| Styrene | 100-42-5 | 0.1 - 1 |
| Calcium stearate | 1592-23-0 | 1 - 5 |
| Carbon black | 1333-86-4 | 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. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.

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. |

<u>PolyOne</u>

MATERIAL SAFETY DATA SHEET GEON X15021313801 BLACK 2880

Version Number 1.0 Revision Date 07/09/2007 Page 2 of 8 Print Date 11/29/2011

| | 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 or 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 see medical attention. |
| | 5. FIRE-FIGHTING MEASURES |
| Flash point | : Not applicable |
| Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards | Not applicable Not applicable Not applicable Carbon dioxide blanket, Water spray, Dry powder, Foam. Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. Carbon dioxide (CO2), carbon monoxide (CO), oxide of nitrogen (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 sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section 1 of this MSDS for proper disposal methods. |
| | 7. HANDLING AND STORAGE |

PolyOne.

MATERIAL SAFETY DATA SHEET GEON X15021313801 BLACK 2880

| | Page 3 11/29/2 |
|--|--|
| | |
| only in areas with appropriate exhaust ventilation. Processing condensates may contain combustible or toxic residue. Period | g fume lically |
| : Keep containers dry and tightly closed to avoid moisture absorand contamination. Keep in a dry, cool place. | rption |
| SURE CONTROLS / PERSONAL PROTECTION | |
| | |
| : Safety glasses with side-shields | |
| : Protective gloves | |
| : Long sleeved clothing | |
| : Safety shoes | |
| Wash hands before breaks and at the end of workday. This pr may contain residual vinyl chloride monomer (VCM) (CAS m 75-01-4) below 8.5 ppm (0.00085%). It is unlikely, under norm working conditions with adequate ventilation, that the exposur will be exceeded for residual VCM. However, the user should necessary precautions (e.g. mechanical ventilation, local exhan- ventilation, air-monitoring, respiratory protection, etc.) to ensu- airborne levels of any vapors including VCM or dusts that ma | oduct umber mal re limits take the ust ure y be |
| : Heat only in areas with appropriate exhaust ventilation. Provi appropriate exhaust ventilation at machinery. | de |
| | |
| | |
| | |
| | |
| | |
| | |
| | Print Date : Take measures to prevent the build up of electrostatic charge. only in areas with appropriate exhaust ventilation. Processing condensates may contain combustible or toxic residue. Period clean hoods, ducts, and other surfaces to minimize accumulati these materials. Keep containers dry and tightly closed to avoid moisture absor- and contamination. Keep in a dry, cool place. OSURE CONTROLS / PERSONAL PROTECTION No personal respiratory protective equipment normally require dusty conditions occur wear appropriate respiratory protection Safety glasses with side-shields Protective gloves Long sleeved clothing Safety shoes Handle in accordance with good industrial hygiene and safety p Wash hands before breaks and at the end of workday. This pr may contain residual vinyl chloride monomer (VCM) (CAS m 75-01-4) below 8.5 ppm (0.00085%). It is unlikely, under norr working conditions with adequate ventilation, that the exposur will be exceeded for residual VCM. However, the user should necessary precautions (e.g. mechanical ventilation, local exhar- ventilation, air-monitoring, respiratory protection, etc.) to ensu- airborne levels of any vapors including VCM or dusts that ma released during heating or processing are below regulated lever Heat only in areas with appropriate exhaust ventilation. Provi |

P<u>olyOne</u>

MATERIAL SAFETY DATA SHEET GEON X15021313801 BLACK 2880

Version Number 1.0 Revision Date 07/09/2007 Page 4 of 8 Print Date 11/29/2011

| Components | Value | Exposure time | Exposure type | List: |
|------------------|----------------------|--------------------------------------|---------------|---------|
| Calcium stearate | 10 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| Carbon black | 3.5 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| | 3.5 mg/m3 | PEL: | | OSHA Z1 |
| | 3.5 mg/m3 | Time Weighted Average (TWA): | | MX OEL |
| | 7 mg/m3 | Short Term Exposure Limit (STEL): | | MX OEL |
| Styrene | 20 ppm | Time Weighted Average (TWA): | | ACGIH |
| | 40 ppm | Short Term Exposure Limit (STEL): | | ACGIH |
| | 100 ppm | Time Weighted Average (TWA): | | OSHA Z2 |
| | 200 ppm | Ceiling Limit Value: | | OSHA Z2 |
| | 600 ppm | Maximum concentration: | | OSHA Z2 |
| | 50 ppm 215 mg/m3 | Time Weighted Average (TWA): | | MX OEL |
| | 100 ppm 425 mg/m3 | Short Term Exposure Limit (STEL): | | MX OEL |

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Color Odour Melting point/range Boiling Point: Water solubility
- Solid
 pellets, powder
 BLACK
 Very faint
 Not determined
 Not applicable
 Insoluble
- Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH
- : Not applicable
- : Not determined
- : Not established
- : Not applicable
- : Not applicable
- : Not applicable

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 |

MATERIAL SAFETY DATA SHEET GEON X15021313801 BLACK 2880

Version Number 1.0 Revision Date 07/09/2007 Page 5 of 8 Print Date 11/29/2011

decomposition and evolution of carbon monoxide and hydrogen chloride.

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 (CNS). |
| 1333-86-4 | Carbon black | Systemic effects | Eyes, 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 |
| 1592-23-0 | Calcium stearate | Oral LD50 | > 10 gm/kg | rat |
| 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 |
|----------|---------------|------|------|-----|
| 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:

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

Additional Health Hazard Information:

PolvOne

MATERIAL SAFETY DATA SHEET GEON X15021313801 BLACK 2880

Version Number 1.0 Revision Date 07/09/2007 Page 6 of 8 Print Date 11/29/2011

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). The IARC 2B listing only pertains to airborne, unbound carbon black particles of respirable size. 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.

12. ECOLOGICAL INFORMATION

| degradable. |
|---|
| gical impact is not known or expected under normal use. |
| ble |
| |
| CONSIDERATIONS |
| moplastic plastics the product can be recycled. Where ing is preferred to disposal or incineration. The aste material has the responsibility for proper waste ransportation and disposal in accordance with eral, state/provincial and local regulations. |
| eferred when possible. The generator of waste material sibility for proper waste classification, transportation accordance with applicable federal, state/provincial ations. |
| T INFORMATION |
| or transportation. |
| or transportation. |
| or transportation. |
| for transportation. |
| RY INFORMATION |
| |
| azardous based on components. |
| azardous based on component |

MATERIAL SAFETY DATA SHEET GEON X15021313801 BLACK 2880

Version Number 1.0 Revision Date 07/09/2007 Page 7 of 8 Print Date 11/29/2011

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

California Proposition : Not applicable 65

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

| Chemical Name | CAS-No. | Weight % |
|---------------|----------|-------------|
| STYRENE | 100-42-5 | 0.10 - 1.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight % | NPRI ID# |
|---------------|----------|-------------|----------|
| Styrene | 100-42-5 | 0.10 - 1.00 | 204 |

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No. | |
|-----------|--|
| 1333-86-4 | |
| 100-42-5 | |

DSL

All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

| Australia AICS | : | Not determined |
|----------------|---|----------------|
| China IECS | : | Not determined |

:

PolyOne

MATERIAL SAFETY DATA SHEET GEON X15021313801 BLACK 2880

Version Number 1.0 Revision Date 07/09/2007 Page 8 of 8 Print Date 11/29/2011

| 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.