

MATERIAL SAFETY DATA SHEET

EXP [4000-9001D] 15503910208 BLK

Version Number 1.0
Revision Date 08/08/2002

Page 1 of 8
Print Date 11/5/2011

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 : EXP [4000-9001D] 15503910208 BLK
Product code : VC10001009
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 | 0.1 - 1 |
| Quartz | 14808-60-7 | 0.1 - 1 |
| Lead oxide sulfate (Pb4O3(SO4)) | 12202-17-4 | 1 - 5 |
| Petroleum distillates, hydrotreated heavy naphthenic | 64742-52-5 | 1 - 5 |
| Calcium carbonate | 1317-65-3 | 30 - 60 |

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 : Resin particles, like other inert materials, can be mechanically irritating.
Ingestion : May be harmful if swallowed.

MATERIAL SAFETY DATA SHEET

EXP [4000-9001D] 15503910208 BLK

Version Number 1.0

Page 2 of 8

Revision Date 08/08/2002

Print Date 11/5/2011

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.

Medical Conditions : None known.

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 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 Procedures : Fullface self-contained breathing apparatus (SCBA) used in positive 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. 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

MATERIAL SAFETY DATA SHEET

EXP [4000-9001D] 15503910208 BLKVersion Number 1.0
Revision Date 08/08/2002Page 3 of 8
Print Date 11/5/2011

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. 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. 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)

MATERIAL SAFETY DATA SHEET

EXP [4000-9001D] 15503910208 BLK

Version Number 1.0

Page 4 of 8

Revision Date 08/08/2002

Print Date 11/5/2011

| Components | Value | Exposure time | Exposure type | List: |
|--|------------------------------------|-----------------------------------|-----------------------------|---------|
| Calcium carbonate | 10 mg/m ³ | Time Weighted Average (TWA): | Total dust. | ACGIH |
| Calcium carbonate | 5 mg/m ³ | PEL: | Respirable dust. | OSHA Z1 |
| | 15 mg/m ³ | PEL: | Total dust. | OSHA Z1 |
| Carbon black | 3.5 mg/m ³ | Time Weighted Average (TWA): | Total dust. as carbon black | ACGIH |
| Carbon black | 3.5 mg/m ³ | PEL: | Total dust. as carbon black | OSHA Z1 |
| Lead oxide sulfate (Pb ₄ O ₃ (SO ₄)) | 0.05 mg/m ³ | Time Weighted Average (TWA): | as Pb | ACGIH |
| Lead oxide sulfate (Pb ₄ O ₃ (SO ₄)) | 0.05 mg/m ³ | Time Weighted Average (TWA): | as Pb | OSHA |
| | 0.03 mg/m ³ | OSHA Action level: | as Pb | OSHA |
| Lead oxide sulfate (Pb ₄ O ₃ (SO ₄)) | 0.15 mg/m ³ | Time Weighted Average (TWA): | Dust and fume. as Pb | MX OEL |
| | 0.45 mg/m ³ | Short Term Exposure Limit (STEL): | Dust and fume. as Pb | MX OEL |
| Petroleum distillates, hydrotreated heavy naphthenic | 500 ppm 2,000 mg/m ³ | PEL: | Vapor. | OSHA Z1 |
| Quartz | 0.05 mg/m ³ | Time Weighted Average (TWA): | Respirable dust. | ACGIH |
| Quartz | 0.1 mg/m ³ | PEL: | Respirable dust. | OSHA |
| | 0.3 mg/m ³ | PEL: | Total dust. | OSHA |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---------------------|-------------------|------------------|-------------------|
| Form | : Solid | Evaporation rate | : Not applicable. |
| Appearance | : Pellets, powder | Specific Gravity | : Not determined |
| Color | : BLACK | Bulk density | : Not established |
| Odor | : Very faint | Vapor pressure | : Not applicable |
| Melting point/range | : Not determined | Vapor density | : Not applicable |
| Boiling Point: | : Not applicable | pH | : Not applicable |
| Water solubility | : 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 | : Carbon dioxide (CO ₂), carbon monoxide (CO), oxides of nitrogen |

MATERIAL SAFETY DATA SHEET

EXP [4000-9001D] 15503910208 BLK

Version Number 1.0

Page 5 of 8

Revision Date 08/08/2002

Print Date 11/5/2011

products

(NO_x), 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. 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. |
| 14808-60-7 | Quartz | Systemic effects | Eyes, Respiratory system. |
| 12202-17-4 | Lead oxide sulfate (Pb ₄ O ₃ (SO ₄)) | Systemic effects | reproductive system, central nervous system. |
| 64742-52-5 | Petroleum distillates, hydrotreated heavy naphthenic | Irritant | Eyes, Skin. |
| 1317-65-3 | Calcium carbonate | Irritant | Eyes, Skin. |
| | | Systemic effects | Eyes, Skin, 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 Dermal LD50 | > 15,400 mg/kg > 3 gm/kg | rat 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 |
| 14808-60-7 | Quartz | no | 1 | 1 |
| 12202-17-4 | Lead oxide sulfate (Pb ₄ O ₃ (SO ₄)) | 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.

EXP [4000-9001D] 15503910208 BLK

Version Number 1.0

Page 6 of 8

Revision Date 08/08/2002

Print Date 11/5/2011

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:

Quartz 14808-60-7 This material in its free releasable form may cause respiratory tract irritation, and possibly silicosis which is a scarring of the lungs.

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".

12. ECOLOGICAL INFORMATION

| | |
|-------------------------------|--|
| 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 material 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. DOT / CA TDG Classification | : Not regulated for transportation. |
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MATERIAL SAFETY DATA SHEET

EXP [4000-9001D] 15503910208 BLK

Version Number 1.0

Page 7 of 8

Revision Date 08/08/2002

Print Date 11/5/2011

ICAO/IATA : Not regulated for transportation.

IMO / IMDG : Not regulated for transportation.

15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.

TSCA Status : All components of this product are listed on the TSCA inventory or are exempt.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Not applicable

California Proposition 65 : WARNING! This product contains a chemical known in the State of California to cause cancer., WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

SARA Title III Section 313 Toxic Chemicals:

| Chemical Name | CAS-No. | Weight % |
|---------------------------|------------|----------|
| LEAD COMPOUNDS, INORGANIC | 12202-17-4 | 00.85 |

Canadian Regulations:

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No. |
|------------|
| 12202-17-4 |

DSL : Listed.

National Inventories:

Australia AICS : Listed.

China IECS : Listed.

Europe EINECS : Not determined.

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MATERIAL SAFETY DATA SHEET

EXP [4000-9001D] 15503910208 BLK

Version Number 1.0

Revision Date 08/08/2002

Page 8 of 8

Print Date 11/5/2011

Japan ENCS : Not determined.

Korea KECI : Listed.

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