

MATERIAL SAFETY DATA SHEET

V1-110DBK BLACK

Version Number 1.0
Revision Date 09/24/2002

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
2700 Papin Street, St. Louis, MO 63103

NON-EMERGENCY TELEPHONE : Product Stewardship, (314) 771-1800
Emergency telephone number : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**

Product name : V1-110DBK BLACK
 Product code : FO20001893
 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 | 10 - 30 |

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. In addition, heating or processing this material may result in product degradation or byproduct formation creating additional hazards. See Sections 8 and 11 for additional details.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Skin contact, Ingestion

Acute exposure

Inhalation : Irritating to respiratory system.
 Ingestion : No known effects.
 Eyes : Particulates, like other inert materials can be mechanically irritating.
 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

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| | | |
|------------|---|---------------------------------------------------------------------------------------------------------------------|
| Inhalation | : | Move to fresh air. When symptoms persist, or in all cases of doubt, seek medical advice. |
| Ingestion | : | Not an anticipated health hazard. |
| Eyes | : | Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, seek medical attention. |
| Skin | : | Wash off with soap and plenty of water. |

5. FIRE-FIGHTING MEASURES

| | | |
|----------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Flash point | : | Not applicable |
| Flammable Limits | | |
| Upper explosion limit | : | Not applicable |
| Lower explosion limit | : | Not applicable |
| Autoignition temperature | : | No data available. |
| Suitable extinguishing media | : | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.. |
| 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 | : | None |

6. ACCIDENTAL RELEASE MEASURES

| | | |
|---------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions | : | Avoid breathing dust. Avoid dust formation. Ensure adequate ventilation. 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. Do not create a powder cloud by using a brush or compressed air. Shovel into suitable container for disposal. Refer to Section 13 of this MSDS for proper disposal methods. |

7. HANDLING AND STORAGE

| | | |
|----------|---|---------------------------------------------------------------------------------------------------------------------|
| Handling | : | Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid formation of dust and aerosols. |
| Storage | : | Store in a cool dry place. Keep away from open flames, hot surfaces and sources of ignition. |

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Employees using respirators must be properly trained. Employers must follow applicable regulations such as OSHA 29 CFR 1910.134.
- 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 immediately after handling the product.
- Engineering measures : Adequate ventilation and/or appropriate respiratory protection may also be necessary to minimize employee exposure to processing vapors.

Exposure limit(s)

| Components | Value | Exposure time | Exposure type | List: |
|--------------|-----------------------|------------------------------|-----------------------------|---------|
| 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 |

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | | | |
|---------------------|-------------------|------------------|-------------------|
| Form | : Solid | Evaporation rate | : Not applicable. |
| Appearance | : powder, flakes | Specific Gravity | : Not determined |
| Color | : BLACK | Bulk density | : Not determined |
| Odor | : Very faint | Vapor pressure | : Not applicable. |
| Melting point/range | : Not applicable | Vapor density | : Not applicable |
| Boiling Point: | : Not applicable. | pH | : Not applicable |
| Water solubility | : Negligible | | |

10. STABILITY AND REACTIVITY

- Stability : Stable.
- Hazardous Polymerization : Will not occur.
- Conditions to avoid : Heat, flames and sparks.

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Incompatible Materials : strong acids and oxidizing agents

Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), hydrogen chloride (HCl), 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. |

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

Additional Health Hazard Information:

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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.

12. ECOLOGICAL INFORMATION

Persistence and degradability : Pigments are practically not biodegradable.

Environmental Toxicity : No data available.

Bioaccumulation Potential : No data available.

Additional advice : No data available.

13. DISPOSAL CONSIDERATIONS

Product : 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 Classification : Refer to specific regulation.

ICAO/IATA : Refer to specific regulation.

IMO / IMDG : Refer to specific regulation.

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.

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US. EPA CERCLA Hazardous Substances (40 CFR 302)

Not applicable

California Proposition : This product does not contain a substance listed by California Prop 65.
65

Canadian Regulations:

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No. |
|-----------|
| 1333-86-4 |

DSL : Listed.

National Inventories:

Australia AICS : Listed.

China IECS : Listed.

Europe EINECS : Listed.

Japan ENCS : Listed.

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.