

## MATERIAL SAFETY DATA SHEET

# 321160 VBX3390 ZUE MIDNIGHT BLACK

Version Number 1.0 Revision Date 06/12/2002 Page 1 of 6 Print Date 11/5/2011

# 1. PRODUCT AND COMPANY IDENTIFICATION

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

| NON-EMERGENCY<br>TELEPHONE    | : | Product Stewardship, (314) 771-1800  |
|-------------------------------|---|--|
| Emergency telephone<br>number | : | CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
| Product name                  | : | 321160 VBX3390 ZUE MIDNIGHT BLACK  |
| Product code                  | : | FO00001130   |
| 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  |

#### **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. However, some vapors or contaminants may be released upon heating and 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

| <b>Routes of Exposure:</b>                    | : Inhalation, Skin contact, Ingestion  |
|---|--|
| Acute exposure                                |  |
| Inhalation<br>Ingestion<br>Eyes<br>Skin       | <ul> <li>Resin particles, like other inert materials, can be mechanically irritating.</li> <li>May be harmful if swallowed.</li> <li>Particulates, like other inert materials can be mechanically irritating.</li> <li>Experience shows no unusual dermatitis hazard from routine handling.</li> </ul> |
| Chronic exposure                              | : Refer to Section 11 for Toxicological Information.   |
| Medical Conditions<br>Aggravated by Exposure: | : None known.  |



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| Inhalation   | :    | Move to fresh air in case of accidental inhalation of fumes from<br>overheating or combustion. When symptoms persist, or in all cases of<br>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<br>Upper explosion limit<br>Lower explosion limit<br>Autoignition temperature<br>Suitable extinguishing media | :    | Not applicable<br>Not applicable<br>Not relevant<br>Carbon dioxide blanket, Water spray, dry powder, foam.   |
| s and the straining and thing and the  | •    |  |
| Special Fire Fighting<br>Procedures  | :    | Fullface self-contained breathing apparatus (SCBA) used in positive<br>pressure mode should be worn to prevent inhalation of airborne<br>contaminants.   |
| Unusual Fire/Explosion<br>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.  |
|  |      | 7. HANDLING AND STORAGE  |
| Handling   | :    | Take measures to prevent the build up of electrostatic charge. Heat<br>only in areas with appropriate exhaust ventilation. Processing fume<br>condensates may contain combustible or toxic residue. Periodically<br>clean hoods, ducts, and other surfaces to minimize accumulation of |

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|  | th  | ese materials.  |  |  |
|--|---|---|--|--|
|  | u   | ese materiais.  |  |  |
| Storage  |   | eep containers dry and tightly<br>nd contamination. Keep in a   |  | absorption   |
| 8. 1   | EXPOSURE  | CONTROLS / PERSONAL   | PROTECTION   |  |
| Respiratory protection   |   | o personal respiratory protect<br>usty conditions occur wear ap   |  |  |
| Eye/Face Protection  | : Sa  | afety glasses with side-shield  | S.   |  |
| Hand protection  | : P   | rotective gloves.   |  |  |
| Skin and body protection   | : L   | ong sleeved clothing.   |  |  |
| Additional Protective<br>Measures  | : Sa  | afety shoes.  |  |  |
| General Hygiene<br>Considerations  |   | andle in accordance with goo<br>/ash hands before breaks and  |  | afety practic  |
| Engineering measures   |   | eat only in areas with approp<br>ppropriate exhaust ventilation   |  | Provide  |
|  |   |   |  |  |
| Exposure limit(s)  | X.1   |   | - Free free  | <b>T</b> • 4   |
| Components   | Value   | Exposure time   | Exposure type  | List:  |
|  | Value<br>3.5 mg/m3  | Time Weighted Average   | Exposure type<br>Total dust. as carbon<br>black  |  |
| Components   |   |   | Total dust. as carbon<br>black<br>Total dust. as carbon  | ACGIH  |
| Components<br>Carbon black   | 3.5 mg/m3<br>3.5 mg/m3  | Time Weighted Average<br>(TWA):<br>PEL:   | Total dust. as carbon<br>black<br>Total dust. as carbon<br>black   | ACGIH  |
| Components<br>Carbon black   | 3.5 mg/m3<br>3.5 mg/m3  | Time Weighted Average (TWA):  | Total dust. as carbon<br>black<br>Total dust. as carbon<br>black   | ACGIH  |
| Components<br>Carbon black<br>Carbon black<br>Form   | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid  | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Evapo  | Total dust. as carbon         black         Total dust. as carbon         black         OPERTIES         oration rate       : Not  | ACGIH<br>OSHA Z<br>applicable.   |
| Components<br>Carbon black<br>Carbon black<br>Form<br>Appearance   | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid<br>: powo  | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PR<br>Evapo<br>ler, granular Speci  | Total dust. as carbon         black         Total dust. as carbon         black         OPERTIES         oration rate       : Not         fic Gravity       : Not  | ACGIH<br>OSHA Z<br>applicable.<br>determined   |
| Components<br>Carbon black<br>Carbon black<br>Form<br>Appearance<br>Color  | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid<br>: powc<br>: BLA   | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Evapo<br>ler, granular Speci<br>CK Bulk  | Total dust. as carbon         black         Total dust. as carbon         black         OPERTIES         oration rate       : Not         fic Gravity       : Not         density       : Not  | ACGIH<br>OSHA Z<br>applicable.<br>determined<br>determined                             |
| Components<br>Carbon black<br>Carbon black<br>Form<br>Appearance<br>Color<br>Odor  | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid<br>: powc<br>: BLA<br>: Very   | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Evapo<br>ler, granular Speci<br>CK Bulko<br>faint Vapo   | Total dust. as carbon         black         Total dust. as carbon         black         OPERTIES         oration rate       : Not         fic Gravity       : Not         density       : Not         r pressure       : Not   | ACGIH<br>OSHA Z<br>applicable.<br>determined<br>determined<br>applicable               |
| Components<br>Carbon black<br>Carbon black<br>Form<br>Appearance<br>Color<br>Odor<br>Melting point/range   | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid<br>: powc<br>: BLA<br>: Very<br>: Not c  | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Evapo<br>ler, granular Speci<br>CK Bulko<br>faint Vapo<br>letermined Vapo                                | Total dust. as carbon         black         Total dust. as carbon         black         OPERTIES         oration rate       : Not         fic Gravity       : Not         density       : Not         r pressure       : Not         r density       : Not                                   | ACGIH<br>OSHA Z<br>applicable.<br>determined<br>determined<br>applicable<br>applicable |
| Components<br>Carbon black<br>Carbon black<br>Carbon black<br>Form<br>Appearance<br>Color<br>Odor<br>Melting point/range<br>Boiling Point:                     | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid<br>: powc<br>: BLA<br>: Very<br>: Not c<br>: Not a                             | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Ler, granular Speci<br>CK Bulk<br>faint Vapor<br>letermined Vapor<br>upplicable pH                       | Total dust. as carbon         black         Total dust. as carbon         black         OPERTIES         oration rate       : Not         fic Gravity       : Not         density       : Not         r pressure       : Not         r density       : Not                                   | ACGIH<br>OSHA Z<br>applicable.<br>determined<br>determined<br>applicable               |
| Components<br>Carbon black<br>Carbon black<br>Form<br>Appearance<br>Color<br>Odor<br>Melting point/range   | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid<br>: powc<br>: BLA<br>: Very<br>: Not c  | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Ler, granular Speci<br>CK Bulk<br>faint Vapor<br>letermined Vapor<br>upplicable pH                       | Total dust. as carbon         black         Total dust. as carbon         black         OPERTIES         oration rate       : Not         fic Gravity       : Not         density       : Not         r pressure       : Not         r density       : Not                                   | ACGIH<br>OSHA Z<br>applicable.<br>determined<br>determined<br>applicable<br>applicable |
| Components<br>Carbon black<br>Carbon black<br>Carbon black<br>Form<br>Appearance<br>Color<br>Odor<br>Melting point/range<br>Boiling Point:                     | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid<br>: powc<br>: BLA<br>: Very<br>: Not c<br>: Not a<br>: Insol                  | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Ler, granular Speci<br>CK Bulk<br>faint Vapor<br>letermined Vapor<br>upplicable pH                       | Total dust. as carbon black         Total dust. as carbon black         Total dust. as carbon black         OPERTIES         oration rate       : Not fic Gravity         fic Gravity       : Not density         r pressure       : Not r density         ic Mot       : Not         ic Not | ACGIH<br>OSHA Z<br>applicable.<br>determined<br>determined<br>applicable<br>applicable |
| Components<br>Carbon black<br>Carbon black<br>Carbon black<br>Form<br>Appearance<br>Color<br>Odor<br>Melting point/range<br>Boiling Point:                     | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid<br>: powc<br>: BLA<br>: Very<br>: Not c<br>: Not a<br>: Insol<br>10. S         | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Exapo<br>ler, granular Speci<br>CK Bulk<br>faint Vapor<br>letermined Vapor<br>upplicable pH<br>uble      | Total dust. as carbon black         Total dust. as carbon black         Total dust. as carbon black         OPERTIES         oration rate       : Not fic Gravity         fic Gravity       : Not density         r pressure       : Not r density         ic Mot       : Not         ic Not | ACGIH<br>OSHA Z<br>applicable.<br>determined<br>determined<br>applicable<br>applicable |
| Components<br>Carbon black<br>Carbon black<br>Carbon black<br>Form<br>Appearance<br>Color<br>Odor<br>Melting point/range<br>Boiling Point:<br>Water solubility | 3.5 mg/m3<br>3.5 mg/m3<br>9. PHYSIC<br>: Solid<br>: powc<br>: BLA<br>: Very<br>: Not c<br>: Not a<br>: Insol<br>10. S<br>: St | Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Evapore<br>ler, granular Speci<br>CK Bulko<br>faint Vapore<br>letermined Vapore<br>upplicable pH<br>uble | Total dust. as carbon black         Total dust. as carbon black         Total dust. as carbon black         OPERTIES         oration rate       : Not fic Gravity         fic Gravity       : Not density         r pressure       : Not r density         ic Mot       : Not         ic Not | ACGIH<br>OSHA Z<br>applicable.<br>determined<br>determined<br>applicable<br>applicable |



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|--|---|---|
| Conditions to avoid                            | : | To avoid thermal decomposition, do not overheat. Keep away from oxidizing agents and open flame.  |
| 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), hydrogen chloride (HCl), 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. |

#### 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                                  | : Not readily biodegradable.  |
| Environmental Toxicity   | : Adverse ecological impact is not known or expected under normal use   |
| Bioaccumulation Potential                                      | : No data available.  |
| Additional advice  | : No data available.  |
|  | 13. DISPOSAL CONSIDERATIONS   |
| Product  | : Where possible, recycling is preferred to disposal or incineration. Th 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   |
| U.S. D.O.T. / CA T.D.G.<br>Classification (Non-bulk<br>ground) | : Not regulated for transportation.   |
| 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 ar   |
|  |   |

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|--|---|
|  | exempt.   |
| US. EPA CERCLA Hazardous Sul                   | ostances (40 CFR 302)   |
| Not applicable                                 |   |
|  |   |
| California Proposition :<br>65                 | WARNING! This product contains a chemical known in the State of California to cause cancer. |
| Canadian Regulations:                          |   |
| WHMIS Classification :                         | D2A   |
| WHMIS Ingredient Disclos                       | ure List  |
| CAS-No.<br>1333-86-4<br>557-05-1<br>75-01-4    |   |
| DSL :  | Listed.   |
| National Inventories:                          |   |
| Australia AICS :                               | Listed.   |
| China IECS :                                   | Listed.   |
| Europe EINECS :                                | Not determined.   |
| Japan ENCS :                                   | Not determined.   |
| Korea KECI :                                   | Listed.   |
| Philippines PICCS :                            | Not determined.   |
|  | 16. OTHER INFORMATION   |

#### **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.