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## MATERIAL SAFETY DATA SHEET **DB3601 Black**

#### Version Number 1.0 Revision Date 05/08/2009

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### 1. PRODUCT AND COMPANY IDENTIFICATION

#### POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

| Telephone:Emergency telephone: |   | Product Stewardship (770) 590-3500 x.3563<br>CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure<br>or accident). |
|--------------------------------|---|--|
| Product name :                 | : | DB3601 Black   |
| Product code :                 | : | FO20001258   |
| Chemical Name :                | : | Mixture  |
| CAS-No.                        | : | Mixture  |
| Product Use :                  | : | Industrial Applications  |

## 2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components                            | CAS-No.    | Weight % |
|---------------------------------------|------------|----------|
| Bisphenol A - Epichlorohydrin polymer | 25068-38-6 | 1 - 5    |
| Carbon black                          | 1333-86-4  | 0.1 - 1  |
| Stoddard solvent                      | 8052-41-3  | 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                 | : Inhalation of airborne droplets may cause irritation of the respiratory tract. |
| Ingestion                  | : May be harmful if swallowed.   |
| Eyes                       | : May cause eye and skin irritation.   |
| Skin                       | : Experience shows no unusual dermatitis hazard from routine handling.           |
| Chronic exposure           | : Refer to Section 11 for Toxicological Information.                             |

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| Medical Conditions<br>Aggravated by Exposure:  | : None known.  |
|--|--|
|  | 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 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  | : No data available  |
| Flammable Limits<br>Upper explosion limit<br>Lower explosion limit<br>Autoignition temperature<br>Suitable extinguishing media<br>Special Fire Fighting<br>Procedures<br>Unusual Fire/Explosion<br>Hazards | <ul> <li>No data available</li> <li>No data available</li> <li>Not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> <li>Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.</li> <li>May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.</li> </ul> |
|  | 6. ACCIDENTAL RELEASE MEASURES   |
| Personal precautions   | : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.   |
| Environmental precautions  | : The product should not be allowed to enter drains, water courses or the soil. Should not be released into the environment.   |
| Methods for cleaning up  | : Soak up with inert absorbent material (e.g. sand, silica gel, acid<br>binder, universal binder, sawdust). Package all material in<br>appropriate container for disposal. Refer to Section 13 of this MSDS<br>for proper disposal methods.  |
|  | 7. HANDLING AND STORAGE  |



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|--|--|
| Handling :                                     | 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<br>and contamination. Store in a cool dry place.       |
| 8. EXPOSU                                      | URE 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 :<br>Measures            | Safety shoes   |
| General Hygiene :<br>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)                              |  |

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| Components       | Value                | Exposure time                        | Exposure type | List:    |
|------------------|----------------------|--------------------------------------|---------------|----------|
| Carbon black     | 3.5 mg/m3            | Time Weighted Average (TWA):         |               | ACGIH    |
|                  | 3.5 mg/m3            | Recommended exposure limit (REL):    |               | NIOSH    |
|                  | 0.1 mg/m3            | Recommended exposure limit (REL):    |               | NIOSH    |
|                  | 3.5 mg/m3            | PEL:                                 |               | OSHA Z1  |
|                  | 3.5 mg/m3            | Time Weighted Average (TWA):         |               | OSHA Z1A |
|                  | 3.5 mg/m3            | Time Weighted Average (TWA):         |               | MX OEL   |
|                  | 7 mg/m3              | Short Term Exposure Limit (STEL):    |               | MX OEL   |
| Stoddard solvent | 100 ppm              | Time Weighted Average<br>(TWA):      |               | ACGIH    |
|                  | 350                  | Recommended exposure                 |               | NIOSH    |
|                  | mg/m3                | limit (REL):                         |               |          |
|                  | 1,800                | Ceiling Limit Value and              |               | NIOSH    |
|                  | mg/m3                | Time Period (if specified):          |               |          |
|                  | 500 ppm<br>2,900     | PEL:                                 |               | OSHA Z1  |
|                  | mg/m3                |                                      |               |          |
|                  | 100 ppm              | Time Weighted Average                |               | OSHA Z1A |
|                  | 525 mg/m3            | (TWA):                               |               |          |
|                  | 100 ppm<br>523 mg/m3 | Time Weighted Average (TWA):         |               | MX OEL   |
|                  | 200 ppm<br>1,050     | Short Term Exposure Limit<br>(STEL): |               | MX OEL   |
|                  | mg/m3                |                                      |               |          |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Color Odour Melting point/range Boiling Point: Water solubility
- : liquid : Viscous, liquid : BLACK : Very faint : Not applicable : Not applicable : Immiscible

Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pН

- : Not established : Not determined : Not applicable : Not determined
- : Not determined :
  - 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. |



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|--|---|---|
| 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 may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 °C (350 °F), after 10 minutes at 204 °C (400 °F), and within 5 minutes at 232 °C (450 °F). |

#### **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                   |
|------------|-------------------------|------------------|--------------------------------|
| 25068-38-6 | Bisphenol A -           | Irritant         | Skin.                          |
|            | Epichlorohydrin polymer |                  |                                |
|            |                         | sensitizer       | Skin.                          |
| 1333-86-4  | Carbon black            | Systemic effects | Eyes, Respiratory system.      |
| 8052-41-3  | Stoddard solvent        | Systemic effects | Kidney, Liver, central nervous |
|            |                         |                  | system (CNS).                  |
|            |                         | Irritant         | 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 |
|------------|-------------------------|-------------|---------------|---------|
| 25068-38-6 | Bisphenol A -           | Oral LD50   | 11,400 mg/kg  | rat     |
|            | Epichlorohydrin polymer | Dermal LD50 | > 6,000 mg/kg | rabbit  |
| 1333-86-4  | Carbon black            | Oral LD50   | >15,400 mg/kg | rat     |
|            |                         | Dermal LD50 | > 3 gm/kg     | rabbit  |
| 8052-41-3  | Stoddard solvent        | Oral LD50   | > 5,000 mg/kg | rat     |
|            |                         | Dermal LD50 | > 3,000 mg/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.

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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:

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  |
|-----------------------------------|---|
| Persistence and degradability     | : Not readily biodegradable.  |
| Environmental Toxicity            | : Environmental toxicity has not been established for this mixture as a whole.  |
| Bioaccumulation Potential         | : No data available   |
| Additional advice                 | : No data available   |
|                                   | 13. DISPOSAL CONSIDERATIONS   |
| Product<br>Contaminated packaging | <ul> <li>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.</li> <li>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.</li> </ul> |
|                                   | 14. TRANSPORT INFORMATION   |
| U.S. DOT Classification           | : Refer to specific regulation.   |
| ICAO/IATA (air)                   | : Refer to specific regulation.   |
|                                   |   |

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|  | 15. REGULATOR                               | Y INFORMAT  | ION   |                     |  |
|--|---|---|---|---------------------|--|
| US Regulations:  |   |   |   |                     |  |
| OSHA Status  | : Classified as ha                          | zardous based or  | n components.                               |                     |  |
| TSCA Status  |   | All components of this product are listed on or exempt from the TSCA Inventory. |   |                     |  |
| US. EPA CERCLA Hazardous S   | ubstances (40 CFR                           | 302)  |   |                     |  |
| Not applicable   |   |   |   |                     |  |
| California Proposition<br>65   | : WARNING! T<br>California to ca            |   | ains a chemical know                        | vn to the State of  |  |
| SARA Title III Section 302 Extre   | emely Hazardous Su                          | lbstance  |   |                     |  |
| Unless specific chemicals are ide  | ntified under this se                       | ction, this produ   | ct is Not Applicable                        | under this regulati |  |
| SARA Title III Section 313 Toxic<br>Unless specific chemicals are ide<br>Canadian Regulations: | ntified under this se                       | ction, this produ   | ct is Not Applicable                        | under this regulati |  |
| National Pollutant Release<br>Chemical Name  | e Inventory (NPRI)                          | CAS-No.   | Weight %                                    | NPRI ID#            |  |
| Bis (2-ethylhexyl) adipate<br>Miscellaneous Zinc Compound                                      |   | 103-23-1  | 30.00 - 60.00                               | 241                 |  |
|  | : D2A<br>osure List<br>]<br>: All component | 0-31-7<br>s of this product<br>(DSL) or are exe                                 | 0.10 - 1.00<br>are on the Canadian<br>empt. |                     |  |

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National Inventories:

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