## MATERIAL SAFETY DATA SHEET MB2622A BLACK SELF BOND

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### **1. PRODUCT AND COMPANY IDENTIFICATION**

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

| Telephone<br>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                     | : | MB2622A BLACK SELF BOND  |
| Product code                     | : | FO20022960   |
| Chemical Name                    | : | Mixture  |
| CAS-No.                          | : | Mixture  |
| Product Use                      | : | Industrial Applications  |

## 2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components          | CAS-No.    | Weight percent |
|---------------------|------------|----------------|
| Carbon black        | 1333-86-4  | 0.1 - 1        |
| Quartz              | 14808-60-7 | 0.1 - 1        |
| Magnesium carbonate | 546-93-0   | 1 - 5          |
| Resorcinol          | 108-46-3   | 1 - 5          |
| Calcium carbonate   | 1317-65-3  | 5 - 10         |
| Calcium oxide       | 1305-78-8  | 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. 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

| Routes of Exposure: | : 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.           |

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| 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 c doubt seek medical advice.   |         |
| Ingestion                           | : Do not induce vomiting without medical advice. When sympt persist or in all cases of doubt seek medical advice.  | oms     |
| Eyes                                | : Rinse immediately with plenty of water for at least 15 minutes irritation persists, seek medical attention.  | . If ey |
| Skin                                | : Wash off with soap and plenty of water. If skin irritation persiseek medical attention.  | ists    |
|                                     | 5. FIRE-FIGHTING MEASURES  |         |
| Flash point                         | : no data available  |         |
| Flammable Limits                    |  |         |
| Upper explosion limit               | : no data available  |         |
| Lower explosion limit               | : no data available  |         |
| Autoignition temperature            | : Not applicable   |         |
| Suitable extinguishing media        | : Carbon dioxide blanket, Water spray, Dry powder, Foam.   |         |
| Special Fire Fighting<br>Procedures | : Fullface self-contained breathing apparatus (SCBA) used in por<br>pressure mode should be worn to prevent inhalation of airborn<br>contaminants.   |         |
| Unusual Fire/Explosion<br>Hazards   | <ul> <li>May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO<br/>fire conditions. Carbon dioxide (CO2), carbon monoxide (CO<br/>oxides of nitrogen (NOx), other hazardous materials, and smol<br/>all possible.</li> </ul> | ),      |
|                                     | 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 cours the soil. Should not be released into the environment.  | es or   |
| 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                         |         |

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|                                   |      | 7. HANDLING AND STORAGE  |
|-----------------------------------|------|--|
| Handling                          | :    | Heat only in areas with appropriate exhaust ventilation. Processing<br>fume condensates may contain combustible or toxic residue.<br>Periodically clean hoods, ducts, and other surfaces to minimize<br>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. EX                             | POSU | RE 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.   |

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| Components          | Value          | Exposure time                     | Exposure type        | List:    |
|---------------------|----------------|-----------------------------------|----------------------|----------|
| Calcium carbonate   | 5 mg/m3        | PEL:                              | Respirable fraction. | OSHA Z1  |
|                     | 15 mg/m3       | PEL:                              | Total dust.          | OSHA Z1  |
|                     | 10 mg/m3       | Time Weighted Average (TWA):      |                      | MX OEL   |
|                     | 20 mg/m3       | Short Term Exposure Limit (STEL): |                      | MX OEL   |
| Calcium oxide       | 2 mg/m3        | Time Weighted Average (TWA):      |                      | ACGIH    |
|                     | 2 mg/m3        | Recommended exposure limit (REL): |                      | NIOSH    |
|                     | 5 mg/m3        | PEL:                              |                      | OSHA Z1  |
|                     | 5 mg/m3        | Time Weighted Average (TWA):      |                      | OSHA Z1A |
|                     | 2 mg/m3        | Time Weighted Average (TWA):      |                      | MX OEL   |
| 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   |
| Magnesium carbonate | 5 mg/m3        | Recommended exposure limit (REL): | Respirable.          | NIOSH    |
|                     | 10 mg/m3       | Recommended exposure limit (REL): | Total                | NIOSH    |
|                     | 5 mg/m3        | PEL:                              | Respirable fraction. | OSHA Z1  |
|                     | 15 mg/m3       | PEL:                              | Total dust.          | OSHA Z1  |
|                     | 5 mg/m3        | Time Weighted Average (TWA):      | Respirable fraction. | OSHA Z1A |
|                     | 15 mg/m3       | Time Weighted Average (TWA):      | Total dust.          | OSHA Z1A |
|                     | 10 mg/m3       | Time Weighted Average (TWA):      |                      | MX OEL   |
|                     | 20 mg/m3       | Short Term Exposure Limit (STEL): |                      | MX OEL   |
| Quartz              | 0.025<br>mg/m3 | Time Weighted Average (TWA):      | Respirable fraction. | ACGIH    |
|                     | 0.05<br>mg/m3  | Recommended exposure limit (REL): | Respirable dust.     | NIOSH    |
|                     | 0.1 mg/m3      | Time Weighted Average<br>(TWA):   | Respirable dust.     | OSHA Z1A |

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|            | 0.1 mg/m3          | Time Weighted Average<br>(TWA):      | Respirable. | Z3       |
|------------|--------------------|--------------------------------------|-------------|----------|
|            | 0.3 mg/m3          | Time Weighted Average<br>(TWA):      | Total dust. | Z3       |
|            | 0.1 mg/m3          | Time Weighted Average<br>(TWA):      |             | MX OEL   |
| Resorcinol | 10 ppm             | Time Weighted Average<br>(TWA):      |             | ACGIH    |
|            | 20 ppm             | Short Term Exposure Limit (STEL):    |             | ACGIH    |
|            | 10 ppm 45<br>mg/m3 | Recommended exposure limit (REL):    |             | NIOSH    |
|            | 20 ppm 90<br>mg/m3 | Short Term Exposure Limit (STEL):    |             | NIOSH    |
|            | 10 ppm 45<br>mg/m3 | Time Weighted Average<br>(TWA):      |             | OSHA Z1A |
|            | 20 ppm 90<br>mg/m3 | Short Term Exposure Limit (STEL):    |             | OSHA Z1A |
|            | 10 ppm 45<br>mg/m3 | Time Weighted Average<br>(TWA):      |             | MX OEL   |
|            | 20 ppm 90<br>mg/m3 | Short Term Exposure Limit<br>(STEL): |             | MX OEL   |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility
- liquid
  viscous, liquid
  NO PIGMENT
  very faint
  not applicable
  not applicable
  immiscible
- Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH
- : 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.  |
| 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 |

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°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  |
|------------|---------------------|------------------|---|
| 1333-86-4  | Carbon black        | Systemic effects | Eyes, Respiratory system.   |
| 14808-60-7 | Quartz              | Systemic effects | Eyes, Respiratory system.   |
| 546-93-0   | Magnesium carbonate | Irritant         | Skin.   |
|            |                     | Systemic effects | Eyes, Skin, Respiratory system.   |
| 108-46-3   | Resorcinol          | Irritant         | Eyes, Skin, Respiratory system.   |
|            |                     | Systemic effects | blood and blood forming<br>system, Liver, Kidney, heart or<br>circulatory system. |
|            |                     | Toxic            | Refer to LC50 / LD50 Data on MSDS   |
| 1317-65-3  | Calcium carbonate   | Irritant         | Eyes, Skin.   |
|            |                     | Systemic effects | Eyes, Skin, Respiratory system.   |
| 1305-78-8  | Calcium oxide       | Irritant         | Skin.   |
|            |                     | Systemic effects | Eyes, Skin, Respiratory system.   |
|            |                     | Corrosive        | Skin.   |

## 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  |
| 108-46-3  | Resorcinol    | Oral LD50   | 200 mg/kg     | mouse   |
|           |               | Dermal LD50 | 3,360 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  |
| 14808-60-7 | Quartz        | no   | 1    | no  |

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

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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:**

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.

### Additional Health Hazard Information:

Quartz 14808-60-7 This material in its free releasable form may cause respiratory tract irritation. Long-term exposure may cause coughing, chest pain, diminished chest expansion and possibly silicosis, which is a scarring of the lungs.

### Additional Health Hazard Information:

**Resorcinol** 108-46-3 May cause the formation of methemoglobin resulting in a reduced ability of the blood to carry oxygen: a symptom of this may be cyanosis purplish blue coloration of the skin, lips and fingernails).

| Persistence and degradability    | : Not readily biodegradable.  |
|----------------------------------|---|
| Environmental Toxicity           | : Environmental toxicity has not been established for this mixture as a whole.  |
| <b>Bioaccumulation Potential</b> | : 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,   |

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 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 (maritime)
 : 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 or exempt from the TSCA Inventory. |

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

| California Proposition | : | WARNING! This product contains a chemical known to the State of |  |
|------------------------|---|---|--|
| 65                     |   | California to cause cancer.                                     |  |

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

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

not applicable

WHMIS Classification : D1B

WHMIS Ingredient Disclosure List

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| CAS-No.   |
|-----------|
| 1305-78-8 |
| 100-97-0  |
| 108-46-3  |
|           |

DSL

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

National Inventories:

|       |                |   | <b>16. OTHER INFORMATION</b> |
|-------|----------------|---|------------------------------|
| 1 III | ippines i reeb | • |                              |
| Phil  | ippines PICCS  |   | Not determined               |
| Kor   | ea KECI        | : | Not determined               |
| Japa  | an ENCS        | : | Not determined               |
| Eur   | ope EINECS     | : | Not determined               |
| Chi   | na IECS        | : | Not determined               |
| Aus   | tralia AICS    | : | Not determined               |
|       |                |   |                              |

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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.