PolvOne

MATERIAL SAFETY DATA SHEET

DB4216A Neutral #6

Version Number 1.0 Revision Date 07/17/2007 Page 1 of 7 Print Date 11/30/2011

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

| Telephone:Emergency telephone: | | Product Stewardship (770) 590-3500 x.3563 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
|--------------------------------|---|--|
| Product name | : | DB4216A Neutral #6 |
| Product code | : | FO20016950 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight % |
|---|------------|----------|
| Oxirane, | 25085-99-8 | 1 - 5 |
| 2,2'-[(1-methylethylidene)bis(4,1-phenylene | | |
| oxymethylene)]bis-, homopolymer | | |
| Calcium oxide | 1305-78-8 | 1 - 5 |
| Triphenyl phosphate | 115-86-6 | 1 - 5 |
| Tin zinc oxide (SnZnO3) | 12036-37-2 | 1 - 5 |
| Molybdate (Mo8O264-), tetraammonium | 12411-64-2 | 5 - 10 |

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/skin irritation. |
| Skin | : Experience shows no unusual dermatitis hazard from routine handling. |

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| Medical Conditions 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 | | | | |
| 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 | : | Fullface self-contained breathing apparatus (SCBA) used in positive | | |
| Procedures | | 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. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. | | |
| | 6. A | CCIDENTAL 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 binder, universal binder, sawdust). Package all material in appropriate | | |



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| | container for disposal. Refer to Section 13 of this MSDS for pr disposal methods. | oper |
| | 7. HANDLING AND STORAGE | |
| Handling | : Heat only in areas with appropriate exhaust ventilation. Proces 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 absorp and contamination. Store in a cool dry place. | otion |
| 8. EXP | SURE CONTROLS / PERSONAL PROTECTION | |
| Respiratory protection | : No personal respiratory protective equipment normally required | 1. |
| 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 pr Wash hands before breaks and at the end of workday. | actice |
| Engineering measures | : Heat only in areas with appropriate exhaust ventilation. Provid appropriate exhaust ventilation at machinery. | e |
| Exposure limit(s) | | |

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| Components | Value | Exposure time | Exposure type | List: |
|---|-----------|-----------------------------------|-------------------------------|---------|
| Calcium oxide | 2 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| | 5 mg/m3 | PEL: | | OSHA Z1 |
| | 2 mg/m3 | Time Weighted Average (TWA): | | MX OEL |
| Molybdate (Mo8O264-), tetraammonium | 0.5 mg/m3 | Time Weighted Average (TWA): | Respirable fraction. as Mo | ACGIH |
| | 5 mg/m3 | PEL: | as Mo | OSHA Z1 |
| | 5 mg/m3 | Time Weighted Average (TWA): | as Mo | MX OEL |
| | 10 mg/m3 | Short Term Exposure Limit (STEL): | as Mo | MX OEL |
| Triphenyl phosphate | 3 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| | 3 mg/m3 | PEL: | | OSHA Z1 |
| | 3 mg/m3 | Time Weighted Average (TWA): | | MX OEL |
| | 6 mg/m3 | Short Term Exposure Limit (STEL): | | MX OEL |
| Tin zinc oxide (SnZnO3) | 2 mg/m3 | Time Weighted Average (TWA): | as Sn | ACGIH |
| | 2 mg/m3 | Time Weighted Average (TWA): | as Sn | MX OEL |
| | 4 mg/m3 | Short Term Exposure Limit (STEL): | as Sn | MX OEL |

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Color 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. |

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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 |
|------------|--|------------------|---|
| 25085-99-8 | Oxirane, 2,2'-[(1-methylethylidene) bis(4,1-phenyleneoxymeth ylene)]bis-, homopolymer | sensitizer | Skin. |
| 1305-78-8 | Calcium oxide | Irritant | Skin. |
| | | Systemic effects | Eyes, Skin, Respiratory system. |
| | | Corrosive | Skin. |
| 115-86-6 | Triphenyl phosphate | Systemic effects | Respiratory system, blood and blood forming system, central nervous system (CNS). |
| 12411-64-2 | Molybdate (Mo8O264-), tetraammonium | Irritant | Eyes, Skin. |

LC50 / LD50

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This product contains the following components which, in their pure form, have the following toxicity data:

| CAS-No. | Chemical Name | Route | Value | Species |
|----------|---------------------|-------------|---------------|---------|
| 115-86-6 | Triphenyl phosphate | Oral LD50 | 3,500 mg/kg | rat |
| | | Dermal LD50 | > 7,900 mg/kg | rabbit |

| | 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 |

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| Product : Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proger 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. Local regulations. Iterations. U.S. DOT Classification : Refer to specific regulation. ICAO/IATA (air) : Refer to specific regulation. IMO / IMDG (maritime) : Refer to specific regulation. US Regulations: OSHA Status 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 Gatifornia Proposition : Not applicable GSARA Title III Section 302 Extremely Hazardous Substance Unless specific chemicals are identified under this section, this product is Not Applicable under this regulati SARA Title III Section 313 Toxic Chemicals: Unless specific chemicals are identified under this section, this product is Not Applicable under this regulati | sion Number 1.0 vision Date 07/17/2007 | | | Page 6 o Print Date <i>11/30/</i> 20 | | |
|--|---|--|--|---|--|--|
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| has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. U.S. DOT Classification : Refer to specific regulation. ICAO/IATA (air) : Refer to specific regulation. IMO / IMDG (maritime) : Refer to specific regulation. IMO / IMDG (maritime) : Refer to specific regulation. IMO / IMDG (maritime) : Refer to specific regulation. US Regulations: OSHA Status : Classified as hazardous based on components. TSCA Status : INventory. US. EPA CERCLA Hazardous Substances (40 CFR 302) Not applicable California Proposition : Not applicable SARA Title III Section 302 Extremely Hazardous Substance Unless specific chemicals are identified under this section, this product is Not Applicable under this regulati SARA Title III Section 313 Toxic Chemicals: Unless specific chemicals are identified under this section, this product is Not Applicable under this regulati | Product | generator of was classification, tra | generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with | | | |
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| 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 : Not applicable 65 SARA Title III Section 302 Extremely Hazardous Substance Unless specific chemicals are identified under this section, this product is Not Applicable under this regulati SARA Title III Section 313 Toxic Chemicals: Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation California Proposition 20 Extremely Hazardous Substance | US Regulations: | | | | | |
| Inventory. US. EPA CERCLA Hazardous Substances (40 CFR 302) Not applicable California Proposition : Not applicable 65 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 Chemical Name CAS-No. Weight % | OSHA Status | : Classified as haz | ardous based on component | nts. | | |
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| California Proposition : Not applicable 65 SARA Title III Section 302 Extremely Hazardous Substance Unless specific chemicals are identified under this section, this product is Not Applicable under this regulati SARA Title III Section 313 Toxic Chemicals: Unless specific chemicals are identified under this section, this product is Not Applicable under this regulati Chemical Name CAS-No. Weight % | US. EPA CERCLA Hazardou | s Substances (40 CFR 3 | 02) | | | |
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| Chemical Name | CAS-No. | Weight % |
|----------------|------------|-------------|
| ZINC COMPOUNDS | 12036-37-2 | 1.00 - 5.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight % | NPRI ID# |
|------------------------------|---------------|-------------|----------|
| Miscellaneous Zinc Compounds | Not Available | 0.10 - 1.00 | 241 |
| Tin zinc oxide (SnZnO3) | 12036-37-2 | 1.00 - 5.00 | 231 |

WHMIS Classification : D2B

WHMIS Ingredient Disclosure List

| CAS-No. |
|------------|
| 1305-78-8 |
| 12411-64-2 |
| 115-86-6 |
| 12036-37-2 |

DSL

: All of the components of this product are listed on the Canadian Inventories or are exempt. However, at least one component of this product is on the Canadian Non-Domestic Substances List (NDSL). Quantity use in Canada is restricted by regulations.

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.