

MATERIAL SAFETY DATA SHEET

DB4304 9261-30 YELLOW

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION

8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone : 1 (440) 930-1000 or 1 (866) POLYONE

Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure

number or accident).

Product name : DB4304 9261-30 YELLOW

Product code : FO20017546 Chemical Name : Mixture CAS-No. : Mixture

Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No. | Weight percent |
|---|------------|----------------|
| Oxirane, 2,2'-[(1-methylethylidene)bis(4,1- | 25085-99-8 | 1 - 5 |
| phenyleneoxymethylene)]bis-, homopolymer | | |
| Titanium dioxide | 13463-67-7 | 0.1 - 1 |
| Lead chromate | 7758-97-6 | 1 - 5 |
| Miscellaneous Barium Compounds | 0-08-8 | 1 - 5 |

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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Chronic exposure : Refer to Section 11 for Toxicological Information.

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. FIREFIGHTING MEASURES

Flash point : no data available

Flammable Limits

Upper explosion limit : no data available Lower explosion limit : no data available Auto-ignition temperature : Not applicable

Suitable extinguishing media : Carbon dioxide blanket, Water spray, Dry powder, Foam.

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

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. 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

binder, universal binder, sawdust). Package all material in



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appropriate container for disposal.

7. HANDLING AND STORAGE

Handling : Heat only in areas with appropriate exhaust ventilation. Processing

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

and contamination. Store in a cool dry place.

8. EXPOSURE 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

Measures

: Safety shoes

General Hygiene 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: |
|-----------------------------------|-----------------|-----------------------------------|----------------------|----------|
| Lead chromate | 0.012 mg/m3 | Time Weighted Average (TWA): | as Cr | ACGIH |
| | 0.05 mg/m3 | Time Weighted Average (TWA): | as Pb | ACGIH |
| | 0.005 mg/m3 | Time Weighted Average (TWA): | | OSHA |
| | 0.0025 mg/m3 | OSHA Action level: | | OSHA |
| | 0.001 mg/m3 | Recommended exposure limit (REL): | as Cr(VI) | NIOSH |
| | 0.1 mg/m3 | Ceiling Limit Value: | | OSHA Z2 |
| | 0.1 mg/m3 | Ceiling Limit Value: | as CrO3 | OSHA Z1A |
| | 0.01 mg/m3 | Time Weighted Average (TWA): | | MX OEL |
| | 1 mg/m3 | PEL: | as Cr | OSHA Z1 |
| | 1 mg/m3 | Time Weighted Average (TWA): | | OSHA Z1A |
| | 0.05 mg/m3 | Time Weighted Average (TWA): | | OSHA |
| | 0.03 mg/m3 | OSHA Action level: | | OSHA |
| | 0.05 mg/m3 | Time Weighted Average (TWA): | as Pb | OSHA Z1A |
| | 0.15 mg/m3 | Time Weighted Average (TWA): | Dust and fume. as Pb | MX OEL |
| Titanium dioxide | 10 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | 10 mg/m3 | Time Weighted Average (TWA): | Total dust. | OSHA Z1A |
| | 10 mg/m3 | Time Weighted Average (TWA): | as Ti | MX OEL |
| | 20 mg/m3 | Short Term Exposure Limit (STEL): | as Ti | MX OEL |
| Miscellaneous Barium Compounds | 0.5 mg/m3 | Time Weighted Average (TWA): | as Ba | ACGIH |
| | 0.5 mg/m3 | PEL: | as Ba | OSHA Z1 |

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid Evapouration rate Not established Specific Gravity Not determined Appearance : viscous, liquid : YELLOW Bulk density Colour Not applicable Odour : very faint Vapour pressure Not determined : Not determined Melting point/range : not applicable Vapour density Boiling Point: : not applicable : Not applicable pН

Water solubility : immiscible



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10. STABILITY AND REACTIVITY

Stability : The product is stable if stored and handled as prescribed.

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 $^{\circ}$ C (350 $^{\circ}$ F), after 10 minutes at 204 $^{\circ}$ 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- phenyleneoxymethylene)] bis-, homopolymer | sensitizer | Skin. |
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |
| 7758-97-6 | Lead chromate | Systemic effects | central nervous system (CNS), reproductive system. |
| 0-08-8 | Miscellaneous Barium Compounds | Irritant | Respiratory system, Eyes. |
| | | Systemic effects | 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 |
|-----------|---------------|-----------|------------|---------|
| 7758-97-6 | Lead chromate | Oral LD50 | > 12 gm/kg | mouse |

Carcinogenicity

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



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| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|------------|------------------|------|------|-----|
| 13463-67-7 | Titanium dioxide | no | 2B | no |
| 7758-97-6 | Lead chromate | yes | 1 | 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:

Lead chromate 7758-97-6 Systemic effects include neurotoxic, teratogenic, fetotoxic and reproductive with abdominal pain, anemia, pallor, decreased hand grip strength with characteristic "wrist drop".

| | 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 | : 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, |

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



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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

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: WARNING! This product contains a chemical known to the State of California to cause cancer., WARNING! This product contains a

chemical known to the State of California to cause birth defects or

other reproductive harm.

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

| | | 1 |
|-------------------------------|-----------|----------------|
| Chemical Name | CAS-No. | Weight percent |
| CHROMIUM VI COMPOUNDSCHROMIUM | 7758-97-6 | 1.00 - 5.00 |
| COMPOUNDSLEAD COMPOUNDSLEAD | | |
| COMPOUNDS, INORGANIC | | |
| BARIUM COMPOUNDS | 0-08-8 | 0.10 - 1.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight | NPRI ID# |
|------------------------------|-----------|-------------|----------|
| | | percent | |
| Lead chromate | 7758-97-6 | 1.00 - 5.00 | |
| Miscellaneous Zinc Compounds | 0-05-5 | 0.10 - 1.00 | 241 |

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.



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7758-97-6 0-08-8

DSL : All components of this product are on the Canadian Domestic

Substances List (DSL) or are exempt.

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.