

POLYONE CORPORATION**MATERIAL SAFETY DATA SHEET****BRONNER COBALT BLUE**Version Number 1.0
Revision Date 10/03/2006Page 1 of 6
Print Date 11/24/2011**1. PRODUCT AND COMPANY IDENTIFICATION****POLYONE CORPORATION**
33587 Walker Road, Avon Lake, OH 44012

Telephone : Product Stewardship (770) 271-5902
Emergency telephone : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**
number

Product name : BRONNER COBALT BLUE
Product code : CC10092171
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight % |
|------------------|------------|----------|
| Titanium dioxide | 13463-67-7 | 5 - 10 |

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors 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.

POTENTIAL HEALTH EFFECTS**Routes of Exposure:** : Inhalation, Ingestion, Skin contact**Acute exposure**

Inhalation : Resin particles, like other inert materials, can be mechanically irritating.
Ingestion : May be harmful if swallowed.
Eyes : Particulates, like other inert materials can be mechanically irritating.
Skin : Experience shows no unusual dermatitis hazard from routine handling.

Chronic exposure : Refer to Section 11 for Toxicological Information.**Medical Conditions** : None known.**Aggravated by Exposure:****4. FIRST AID MEASURES**

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

BRONNER COBALT BLUE

Version Number 1.0
Revision Date 10/03/2006

Page 2 of 6
Print Date 11/24/2011

- 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, 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
Upper explosion limit : Not applicable
Lower explosion limit : Not applicable
Autoignition temperature : Not relevant
Suitable extinguishing media : Carbon dioxide blanket, water spray, dry powder, foamnone.
- 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 : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), 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 : 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 scoop 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 only in areas with appropriate exhaust ventilation.
- Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

BRONNER COBALT BLUE

Version Number 1.0
Revision Date 10/03/2006

Page 3 of 6
Print Date 11/24/2011

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Respiratory protection : No personal respiratory protective equipment normally required. If dusty conditions occur wear appropriate respiratory protection.
- Eye/Face Protection : safety glasses
- Hand protection : Protective gloves.
- Skin and body protection : Long sleeved clothing.
- Additional Protective Measures : Safety shoes.
- General Hygiene Considerations : Wash hands and face before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice for diagnostics.
- Engineering measures : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

Exposure limit(s)

| Components | Value | Exposure time | Exposure type | List: |
|------------------|----------------------|-----------------------------------|---------------|---------|
| Titanium dioxide | 10 mg/m ³ | Time Weighted Average (TWA): | | ACGIH |
| | 15 mg/m ³ | PEL: | Total dust. | OSHA Z1 |
| | 20 mg/m ³ | Short Term Exposure Limit (STEL): | as Ti | MX OEL |

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : Solid
- Appearance : flakes
- Color : BLUE
- Odor : Very faint
- Melting point/range : Greater than 130 °C
- Boiling Point: : Not applicable
- Water solubility : Insoluble
- Evaporation rate : Not applicable
- Specific Gravity: : Not determined
- Bulk density : Not determined
- Vapor pressure : Not determined
- Vapour density : Not determined
- pH : Not applicable

10. STABILITY AND REACTIVITY

- Stability : Stable.
- Hazardous Polymerization : Will not occur.
- Conditions to avoid : To avoid thermal decomposition, do not overheat.

POLYONE CORPORATION**MATERIAL SAFETY DATA SHEET****BRONNER COBALT BLUE**Version Number 1.0
Revision Date 10/03/2006Page 4 of 6
Print Date 11/24/2011

Incompatible Materials : Incompatible with strong acids and oxidizing agents.

Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

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 |
|------------|------------------|------------------|---------------------|
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |

Carcinogenicity

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

| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|------------|------------------|------|------|-----|
| 13463-67-7 | Titanium dioxide | 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.

12. ECOLOGICAL INFORMATION

Persistence and degradability : Not readily biodegradable.

Environmental Toxicity : Chemicals are not readily available as they are bound within the polymer matrix.

Bioaccumulation Potential : Not inherently biodegradable.

Additional advice : Chemicals are not readily available as they are bound within the polymer matrix.

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.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

BRONNER COBALT BLUE

Version Number 1.0
Revision Date 10/03/2006

Page 5 of 6
Print Date 11/24/2011

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.

14. TRANSPORT INFORMATION

U.S. DOT Classification : Refer to specific regulation.
ICAO/IATA (air) : 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 : Not applicable
65

SARA Title III Section 302 Extremely Hazardous Substance
Not applicable

SARA Title III Section 313 Toxic Chemicals:

Not applicable
Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Not applicable

WHMIS Classification : Not controlled.

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

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

BRONNER COBALT BLUE

Version Number 1.0
Revision Date 10/03/2006

Page 6 of 6
Print Date 11/24/2011

National Inventories:

- Australia AICS : Listed
- China IECS : Listed
- Europe EINECS : Listed
- Japan ENCS : Not determined
- Korea KECI : Listed
- Philippines PICCS : Listed

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 when used in combination with any other materials and/or in any particular process or processing conditions.