



# POLYONE CORPORATION

## MATERIAL SAFETY DATA SHEET

### 50BN2026 PE BROWN

Version Number 1.2

Revision Date 12/26/2012

Page 1 of 7

Print Date 12/26/2012

#### 1. PRODUCT AND COMPANY IDENTIFICATION

##### POLYONE CORPORATION

33587 Walker Road, Avon Lake, OH 44012

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 : 50BN2026 PE BROWN  
Product code : CC10160287  
Chemical Name : Mixture  
CAS-No. : Mixture  
Product Use : Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
C.I. Pigment red 48, calcium salt	7023-61-2	5 - 10
Carbon black	1333-86-4	1 - 5
Calcium carbonate	1317-65-3	10 - 30

#### 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. Do not use this pigment in polymers at temperatures over 200°C (392°F). Decomposition of diarylide pigments in polymers at temperatures over 200°C (392°F) may produce trace amounts of monoazo dyes, which in turn can decompose to produce aromatic amines. The amount and type of degradation products formed depend on the dwell time, formulation and processing conditions as well as temperature. As conditions become more severe, as when temperatures move into the 240-300°C (464-572°F) range, trace quantities of 3,3'-dichlorobenzidine can be generated. 3,3'-dichlorobenzidine is classified as a suspect carcinogen by NTP and IARC, is classified as Acute Toxicity category 4 and Carcinogen Category 1B according to 1272/2008EC (CLP), and is regulated by OSHA as a suspect carcinogen. In order to avoid the generation of and exposure to 3,3'-dichlorobenzidine, do not use diarylide pigments in polymers when temperatures exceed 200°C (392°F). Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

#### POTENTIAL HEALTH EFFECTS

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**50BN2026 PE BROWN**

Version Number 1.2  
Revision Date 12/26/2012

Page 2 of 7  
Print Date 12/26/2012

**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 : Resin particles, like other inert materials, are mechanically irritating to eyes.
- 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**

- 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. FIREFIGHTING MEASURES**

- Flash point : not applicable
- Flammable Limits
  - Upper explosion limit : not applicable
  - Lower explosion limit : not applicable
- 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 : Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), other hazardous materials, and smoke are all possible.

**6. ACCIDENTAL RELEASE MEASURES**

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**50BN2026 PE BROWN**

Version Number 1.2  
Revision Date 12/26/2012

Page 3 of 7  
Print Date 12/26/2012

- 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 sweeping 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.

**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)

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**50BN2026 PE BROWN**

Version Number 1.2

Page 4 of 7

Revision Date 12/26/2012

Print Date 12/26/2012

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
Carbon black	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
	3 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: solid	Evaporation rate	: Not applicable
Appearance	: pellets	Specific Gravity	: Not determined
Colour	: BROWN	Bulk density	: Not established
Odour	: very faint	Vapour pressure	: not applicable
Melting point/range	: Not determined	Vapour density	: not applicable
Boiling Point:	: not applicable	pH	: not applicable
Water solubility	: insoluble		

**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.
Hazardous decomposition products	: Carbon dioxide (CO <sub>2</sub> ), carbon monoxide (CO), oxides of nitrogen (NO <sub>x</sub> ), other hazardous materials, and smoke are all possible. Do not use this pigment in polymers at temperatures over 200°C (392°F). Decomposition of diarylide pigments in polymers at temperatures over 200°C (392°F) may produce trace amounts of monoazo dyes, which in turn can decompose to produce aromatic amines. The amount and type of degradation products formed depend on the dwell time, formulation and processing conditions as well as temperature.

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**50BN2026 PE BROWN**

Version Number 1.2  
Revision Date 12/26/2012

Page 5 of 7  
Print Date 12/26/2012

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**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
7023-61-2	C.I. Pigment red 48, calcium salt	Irritant	Eyes, Skin, Respiratory system.
		Toxic	digestive system.
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	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
1333-86-4	Carbon black	Oral LD50	> 15,400 mg/kg	rat
		Dermal LD50	> 3 gm/kg	rabbit

**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**

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**50BN2026 PE BROWN**

Version Number 1.2  
Revision Date 12/26/2012

Page 6 of 7  
Print Date 12/26/2012

Persistence and degradability : Not readily biodegradable.

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

Bioaccumulation Potential : Chemicals are not readily available as they are bound within the polymer matrix.

Additional advice : no data available

**13. DISPOSAL CONSIDERATIONS**

Product : Like most thermoplastic plastics the product can be recycled. 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, state/provincial and local regulations.

**14. TRANSPORT INFORMATION**

U.S. DOT Classification : Not regulated for transportation.

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 : Not applicable  
65

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**50BN2026 PE BROWN**

Version Number 1.2  
Revision Date 12/26/2012

Page 7 of 7  
Print Date 12/26/2012

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 : D2A

WHMIS Ingredient Disclosure List

CAS-No.
1333-86-4

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

National Inventories:

Australia AICS : Listed

China IECS : Listed

Europe EINECS : Listed

Japan ENCS : Listed

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 used in combination with any other materials or in any process, unless specified in the text.