MATERIAL SAFETY DATA SHEET **BRONZE BZ01**

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone	:	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	BRONZE BZ01
Product code	:	CC10101566
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	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.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:	: Inhalation, Ingestion, Skin contact
Acute exposure	
Inhalation Ingestion Eyes	 Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to average.
Skin	eyes. : Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.
Medical Conditions Aggravated by Exposure:	: None known.



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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 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 (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	:	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



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		nd contamination. Keep in a d	ry, coor prace.			
8. H	XPOSURE	CONTROLS / PERSONAL	PROTECTION			
Respiratory protection	: N	o personal respiratory protectiv	ve equipment normally r	required.		
Eye/Face Protection	ye/Face Protection : Safety glasses with side-shields					
Hand protection : Protective gloves						
Skin and body protection	: L	ong sleeved clothing				
Additional Protective Measures	: S	afety shoes				
General Hygiene Considerations		landle in accordance with good Vash hands before breaks and a		afety practice.		
Engineering measures		leat only in areas with appropri ppropriate exhaust ventilation a		Provide		
Exposure limit(s)						
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		
	$20 ma/m^2$	Short Term Exposure Limit		MX OEL		
	20 mg/m3	(STEL):		_		
Titanium dioxide	10 mg/m3	(STEL): Time Weighted Average		ACGIH		
Titanium dioxide		(STEL):	Total dust.			
Titanium dioxide	10 mg/m3	(STEL): Time Weighted Average (TWA): PEL: Time Weighted Average	Total dust. as Ti	ACGIH		
Titanium dioxide	10 mg/m3 15 mg/m3	(STEL): Time Weighted Average (TWA): PEL:		ACGIH OSHA Z1		
Titanium dioxide	10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3	(STEL): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit	as Ti as Ti	ACGIH OSHA Z1 MX OEL		
	10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 9. PHYSIC	(STEL): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO	as Ti as Ti PERTIES	ACGIH OSHA Z1 MX OEL MX OEL		
Form	10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 9. PHYSIC : Solic	(STEL): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO	as Ti as Ti PERTIES ration rate : Not	ACGIH OSHA Z1 MX OEL MX OEL applicable		
Form Appearance	10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 9. PHYSIC : Solic : pelle	(STEL): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO LEVAPOR LEVAPOR	as Ti as Ti PERTIES ration rate : Not c Gravity : Not	ACGIH OSHA Z1 MX OEL MX OEL applicable determined		
Form Appearance Color	10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 9. PHYSIC : Solic : pelle : BRC	(STEL): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO Evapor ts Specifi WN Bulk do	as Ti as Ti PERTIES ration rate : Not c Gravity : Not ensity : Not	ACGIH OSHA Z1 MX OEL MX OEL applicable determined established		
Form Appearance Color Odour	10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 9. PHYSIC : Solic : pelle : BRC : Very	(STEL): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO I Evapor ts Specifi WN Bulk de faint	as Ti as Ti PERTIES ration rate : Not c Gravity : Not ensity : Not r pressure : Not	ACGIH OSHA Z1 MX OEL MX OEL applicable determined established applicable		
Form Appearance Color	10 mg/m3 15 mg/m3 10 mg/m3 20 mg/m3 20 mg/m3 9. PHYSIO : Solid : pelle : BRC : Very : Not of	(STEL): Time Weighted Average (TWA): PEL: Time Weighted Average (TWA): Short Term Exposure Limit (STEL): CAL AND CHEMICAL PRO I Evapor ts Specifi WN Bulk de faint	as Ti as Ti PERTIES ration rate : Not c Gravity : Not ensity : Not r pressure : Not r density : Not	ACGIH OSHA Z1 MX OEL MX OEL applicable determined established		

10. STABILITY AND REACTIVITY



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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 (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.

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.
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, 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	:	Chemicals are not readily available as they are bound within the



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	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 (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 Hazardo	us Substances (40 CFR 302)
Not applicable	
California Proposition 65	n : Not applicable
	Extremely Hazardous Substance

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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 %			
	ZINC COMPOUNDS	68187-51-9	1.00 - 5.00			

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Zinc ferrite brown spinel (C.I. Pigment Yellow	68187-51-9	1.00 - 5.00	231
119)			

	WHMIS Classification	:	D2A	
	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	:	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 used in combination with any other materials or in any process, unless specified in the text.