MATERIAL SAFETY DATA SHEET

TDC Low Cost Brown

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone Emergency telephone number	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	TDC Low Cost Brown
Product code	:	FO20007729
Chemical Name	:	Mixture
CAS-No.	:	Mixture

CAS-No. : Mixture Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Quartz	14808-60-7	0.1 - 1
Magnesium carbonate	546-93-0	1 - 5
Resorcinol	108-46-3	1 - 5
Calcium oxide	1305-78-8	5 - 10
Calcium carbonate	1317-65-3	10 - 30

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 : 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 ca doubt seek medical advice.	
Ingestion	: Do not induce vomiting without medical advice. When symptopersist or in all cases of doubt seek medical advice.	oms
Eyes	: Rinse immediately with plenty of water for at least 15 minutes. irritation persists, seek medical attention.	If eye
Skin	: Wash off with soap and plenty of water. If skin irritation persist seek medical attention.	sts
	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	: Fullface self-contained breathing apparatus (SCBA) used in pos	sitive
Procedures	pressure mode should be worn to prevent inhalation of airborne	
	contaminants.	
Unusual Fire/Explosion	: May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO)	
Hazards	fire conditions. Carbon dioxide (CO2), carbon monoxide (CO)	
	oxides of nitrogen (NOx), other hazardous materials, and smok all possible.	e ale
	ACCIDENTAL RELEASE MEASURES	
Personal precautions	: Wear appropriate personal protection during cleanup, such as	
resonar precautions	impervious gloves, boots and coveralls.	
Environmental precautions	: The product should not be allowed to enter drains, water course the soil. Should not be released into the environment.	es or
Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in	l



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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. EX	POSUI	RE 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:
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
Calcium oxide	2 mg/m3	Time Weighted Average (TWA):		ACGIH
	2 mg/m3	Recommended exposure limit (REL):		NIOSH
	5 mg/m3	PEL:		OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	2 mg/m3	Time Weighted Average (TWA):		MX OEL
Magnesium carbonate	5 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	10 mg/m3	Recommended exposure limit (REL):	Total	NIOSH
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	OSHA Z1A
	15 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
Quartz	0.025 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	0.05 mg/m3	Recommended exposure limit (REL):	Respirable dust.	NIOSH
	0.1 mg/m3	Time Weighted Average (TWA):	Respirable dust.	OSHA Z1A
	0.1 mg/m3	Time Weighted Average (TWA):	Respirable.	Z3
	0.3 mg/m3	Time Weighted Average (TWA):	Total dust.	Z3
	0.1 mg/m3	Time Weighted Average (TWA):		MX OEL
Resorcinol	10 ppm	Time Weighted Average (TWA):		ACGIH
	20 ppm	Short Term Exposure Limit (STEL):		ACGIH
	10 ppm 45 mg/m3	Recommended exposure limit (REL):		NIOSH

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20 ppm 90	Short Term Exposure Limit	NIOSH
mg/m3	(STEL):	1
10 ppm 45	Time Weighted Average	OSHA Z1A
mg/m3	(TWA):	1
20 ppm 90	Short Term Exposure Limit	OSHA Z1A
mg/m3	(STEL):	1
10 ppm 45	Time Weighted Average	MX OEL
mg/m3	(TWA):	1
20 ppm 90	Short Term Exposure Limit	MX OEL
mg/m3	(STEL):	1

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility

: not applicable : not applicable pH : immiscible

Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density

- Not established :
 - Not determined
- Not applicable :
- Not determined :
- : Not determined
- : Not applicable

10. STABILITY AND REACTIVITY

: liquid

:

: viscous, liquid

BROWN

: very faint

- 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.
- Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen Hazardous decomposition : (NOx), hydrogen chloride (HCl), other hazardous materials, and products 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
14808-60-7	Quartz	Systemic effects	Eyes, Respiratory system.

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546-93-0	Magnesium carbonate	Irritant	Skin.
		Systemic effects	Eyes, Skin, Respiratory
			system.
108-46-3	Resorcinol	Irritant	Eyes, Skin, Respiratory
			system.
		Systemic effects	blood and blood forming
			system, Liver, Kidney, heart or
			circulatory system.
		Toxic	Refer to LC50 / LD50 Data on
			MSDS
1305-78-8	Calcium oxide	Irritant	Skin.
		Systemic effects	Eyes, Skin, Respiratory
			system.
		Corrosive	Skin.
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
108-46-3	Resorcinol	Oral LD50	200 mg/kg	mouse
		Dermal LD50	3,360 mg/kg	rabbit

Carcinogenicity

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
14808-60-7	Quartz	no	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:

Quartz 14808-60-7 This material in its free releasable form may cause respiratory tract irritation. Long-term exposure may cause coughing, chest pain, diminished chest expansion and possibly silicosis, which is a scarring of the lungs.

Additional Health Hazard Information:

Resorcinol 108-46-3 May cause the formation of methemoglobin resulting in a reduced ability of the blood to carry oxygen: a symptom of this may be cyanosis purplish blue coloration of the skin, lips and fingernails).

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	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. Th 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	: Refer to specific regulation.
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 65	: WARNING! This product contains a chemical known to the State of California to cause cancer.

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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 : D1B

WHMIS Ingredient Disclosure List

CAS-No.	
1305-78-8	
100-97-0	
108-46-3	

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	: Listed
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

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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.