MATERIAL SAFETY DATA SHEET 20100TF SOFT DARK BROWN

Version Number 1.6 Revision Date 12/27/2012

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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	:	20100TF SOFT DARK BROWN
Product code	:	FO00000857
Chemical Name	:	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
Diphenyloxide-4,4'-disulfohydrazide	80-51-3	1 - 5
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Calcium carbonate	1317-65-3	30 - 60

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. 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

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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.
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 Suitable extinguishing media	Not applicableCarbon dioxide blanket, Water spray, Dry powder, Foam.
Sunable extinguisining media	
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.

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	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 o 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 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 absorptio and contamination. Store in a cool dry place.
8. EXI	POSURE 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
Diphenyloxide-4,4'- disulfohydrazide	0.1 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
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
Silica, amorphous, fumed, crystal-free	0.8 mg/m3	Time Weighted Average (TWA):		Z3
·	10 mg/m3	Time Weighted Average (TWA):	Inhalable particulate.	MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Respirable dust.	MX OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility liquid
viscous, liquid
BROWN
very faint
not applicable
not applicable
immiscible

Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH

Not establishedNot determinedNot applicableNot determinedNot determined

: Not applicable

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.

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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 °C (350 °F), after 10 minutes at 204 °C (400 °F), and within 5 minutes at 232 °C (450 °F). 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.

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.
80-51-3	Diphenyloxide-4,4'- disulfohydrazide	Irritant	Eyes, Skin.
112945-52-5	Silica, amorphous, fumed, crystal-free	Irritant	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
112945-52-5	Silica, amorphous, fumed, crystal-free	Oral LD50	3,160 mg/kg	rat
	crystal-file			

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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.

	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, state/provincial and local regulations.
	14. TRANSPORT INFORMATION
U.S. DOT Classification	: Refer to specific regulation.

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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	Sub	stances (40 CFR 302)
not applicable		
California Proposition 65	:	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 Ext	rem	ely Hazardous Substance
Unless specific chemicals are id	lenti	fied under this section, this product is Not Applicable under this regulation
SARA Title III Section 313 Tox	cic C	Chemicals:
Unless specific chemicals are id	lenti	fied under this section, this product is Not Applicable under this regulation
Canadian Regulations:		
National Pollutant Relea	se Ir	iventory (NPRI)
not applicable		
WHMIS Classification	:	D2A
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

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: Listed
: Not determined
: Not determined
: 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.