MATERIAL SAFETY DATA SHEET

DARK BROWN 2

Version Number 1.0 Revision Date 05/16/2005

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone:Emergency telephone:number		Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	DARK BROWN 2
Product code	:	CC10069810
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimeth ylpropyl)-	25973-55-1	1 - 5
Carbon black	1333-86-4	1 - 5
Iron oxide	1309-37-1	30 - 60

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 eyes.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.



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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, 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 seel medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: Not applicable
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media	 Not applicable Not applicable Not applicable Carbon dioxide blanket, water spray, dry powder, foamnone.
Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), 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 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



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Storage	: H	only in areas with appropriate on Keep containers dry and tightly and contamination. Keep in a	y closed to avoid moisture	absorption
8. E	XPOSURE	CONTROLS / PERSONAL	PROTECTION	
Respiratory protection	: 1	No personal respiratory protect	tive equipment normally r	equired.
Eye/Face Protection	: 5	Safety glasses with side-shield	s.	
Hand protection	: I	Protective gloves.		
Skin and body protection	: I	Long sleeved clothing.		
Additional Protective Measures	: 5	Safety shoes.		
General Hygiene Considerations		Handle in accordance with goo Wash hands before breaks and		afety practice.
Engineering measures		Heat only in areas with approp appropriate exhaust ventilation		Provide
Exposure limit(s)				
Components	Value	Exposure time	Exposure type	List:
0 1 11 1	25 / 2		TT + 1 1 + 1	ACCILL

Components	Value	Exposure time	Exposure type	List:
Carbon black	3.5 mg/m3	Time Weighted Average	Total dust. as carbon	ACGIH
		(TWA):	black	
	3.5 mg/m3	PEL:	Total dust. as carbon	OSHA Z1
			black	
Iron oxide	5 mg/m3	Time Weighted Average	Dust and fume. as Fe	ACGIH
		(TWA):		

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Color Odor Melting point/range Boiling Point: Water solubility
- Solid
 Pellets
 BROWN
 Very faint
 Not determined
 Not applicable
 Insoluble
- Evaporation rate Specific Gravity: Bulk density Vapor pressure Vapour density pH
- Not applicable
 Not determined
 Not established
 Not applicable
 Not applicable
 Not applicable
 Not applicable
- Water solubility
 : Insoluble

 10. STABILITY AND REACTIVITY

 Stability
 : Stable.

 Hazardous Polymerization
 : Will not occur.



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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
25973-55-1	Phenol, 2-(2H-benzotriazol-2-yl)-4 ,6-bis(1,1-dimethylpropyl) -	Systemic effects	Kidney, Liver, reproductive system.
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
1309-37-1	Iron oxide	Systemic effects	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

Persistence and degradability

: Not readily biodegradable.

Environmental Toxicity

: Chemicals are not readily available as they are bound within the



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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. When 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 mater 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 TSC Inventory.
US. EPA CERCLA Hazardou	s Substances (40 CFR 302)
Not applicable	
California Propositior 65	: Not applicable
	xtremely Hazardous Substance

PolyOne

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Not applicable Canadian Regulations:	
National Pollutant Release	e Inventory (NPRI)
Not applicable	
WHMIS Classification	: D2A
WHMIS Ingredient Discl	sure List
CAS-No. 1333-86-4 1309-37-1	
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	: Not determined
Philippines PICCS	: Not determined

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.