MATERIAL SAFETY DATA SHEET DARK BROWN 469U HDPE

Version Number 1.0 Revision Date 01/19/2004

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

NON-EMERGENCY TELEPHONE	:	Product Stewardship (770) 271-5902	
Emergency telephone number	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).	
Product name	:	DARK BROWN 469U HDPE	
Product code	:	CC10048505	
Chemical Name	:	Mixture	
CAS-No.	:	Mixture	
Product Use	:	Industrial Applications	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Titanium dioxide	13463-67-7	1 - 5
Iron oxide	1309-37-1	5 - 10

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 : 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 persis 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	 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. 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 12 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.			



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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 Safety shoes. : Measures General Hygiene Handle in accordance with good industrial hygiene and safety practice. : Considerations 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)

Components	Value	Exposure time	Exposure type	List:
Iron oxide	5 mg/m3	Time Weighted Average	Dust and fume. as Fe	ACGIH
		(TWA):		
Titanium dioxide	10 mg/m3	Time Weighted Average		ACGIH
		(TWA):		
	15 mg/m3	PEL:	Total dust.	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES					
Form	: Solid	Evaporation rate	:	Not applicable	
Appearance	: Pellets	Specific Gravity:	:	Not determined	
Color	: BROWN	Bulk density	:	Not established	

Odor : Very faint Vapor pressure : Not applicable : Not applicable : Not determined Vapour density Melting point/range Boiling Point: : Not applicable : Not applicable pН 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 :

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		decomposition,	do not overheat.			
Incompatible Materials :		: Incompatible w	: Incompatible with strong acids and oxidizing agents.			
Hazardous decompos products	sition		Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.			
		11. TOXICOLOGI	CAL INFORMATIC	DN		
		luated as a whole for h components which com		re effects listed are based on exi		
<u>Toxicity Overview</u> This product contain	s the follo	owing components whi	ch in their pure form	have the following characteristic		
CAS-No.		Chemical Name	Effect	Target Organ		
13463-67-7		ium dioxide	Systemic effects	Respiratory system.		
1309-37-1	Iron o	oxide	Systemic effects	Respiratory system.		
		12. ECOLOGICA	L INFORMATION	I		
Persistence and degr Environmental Toxic	-	Not readily biodChemicals are n of the polymer.	-	s they are bound within the matrix		
		: Chemicals are n of the polymer.	ot readily available a	s they are bound within the matrix		
Additional advice		: No data availab	No data available			
		13. DISPOSAL C	ONSIDERATIONS			
Product		possible recycli generator of wa classification, tr	ng is preferred to dis ste material has the r	product can be recycled. Where posal or incineration. The esponsibility for proper waste posal in accordance with nd local regulations.		
Contaminated packaging		has the responsi and disposal in	: 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	FINFORMATION			
U.S. DOT Classifica	tion		T INFORMATION			

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IMO / IMDG (maritime)	: Refer to specific reg	gulation.	
	15. REGULATORY I	NFORMATION	
US Regulations:			
OSHA Status	: Classified as hazard	lous based on compon	ents.
TSCA Status	: All components of Inventory.	this product are listed of	on or exempt from the TSCA
US. EPA CERCLA Hazardous	s Substances (40 CFR 302))	
Not applicable			
California Proposition 65	: This product does n	ot contain a substance	listed by California Prop 65
SARA Title III Section 302 Ex	xtremely Hazardous Substa	ance	
Not applicable			
SARA Title III Section 313 To	oxic Chemicals:		
Chemical Name		CAS-No.	Weight %
ZINC COMPOUNDS		68187-51-9	5.51
Canadian Regulations:			
National Pollutant Rele	ease Inventory (NPRI)		
WHMIS Classification	n : D2B		
WHMIS Ingredient Dis	sclosure List		
CAS-No.			
1309-37-1			
	: All components of Substances List (DS	this product are on the SL) or are exempt.	e Canadian Domestic
1309-37-1			e Canadian Domestic
1309-37-1 DSL			e Canadian Domestic



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:	Listed
:	Listed
:	Not determined
:	Listed
:	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 when used in combination with any other materials and/or in any particular process or processing conditions.