MATERIAL SAFETY DATA SHEET 5B8A CHARCOAL BLACK TG3S

Version Number 1.0 Revision Date 03/29/2012 Page 1 of 9 Print Date 8/25/2012

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	5B8A CHARCOAL BLACK TG3S
Product code	:	CC10160791
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight percent
1,6-Hexanediamine, N,N'-bis(2,2,6,6- tetramethyl-4-piperidinyl)-,polymer with 2,4,6-trichloro-1,3,5-triazine, reaction products	70624-18-9	1 - 5
2,4,8,10-Tetraoxa-3,9- diphosphaspiro[5.5]undecane, 3,9-bis[2,4- bis(1,1-dimethylethyl)phenoxy]-	26741-53-7	1 - 5
Carbon black	1333-86-4	1 - 5
Iron oxide	1309-37-1	1 - 5
Rutile, antimony chromium buff	68186-90-3	1 - 5
Titanium dioxide	13463-67-7	1 - 5

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

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MATERIAL SAFETY DATA SHEET 5B8A CHARCOAL BLACK TG3S

Version Number 1.0 Revision Date 03/29/2012 Page 2 of 9 Print Date 8/25/2012

	irritating.
Ingestion	: May be harmful if swallowed.
Eyes	: Resin particles, like other inert materials, are mechanically irritating to
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.
	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 o 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
Unusual Fire/Explosion Hazards	 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.

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MATERIAL SAFETY DATA SHEET 5B8A CHARCOAL BLACK TG3S

Version Number 1.0 Revision Date 03/29/2012		Page 3 of 9 Print Date 8/25/2012
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 and contamination. Keep in a dry, cool place.
8. EXP	OSU	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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MATERIAL SAFETY DATA SHEET 5B8A CHARCOAL BLACK TG3S

Version Number 1.0 Revision Date 03/29/2012 Page 4 of 9 Print Date 8/25/2012

Components	Value	Exposure time	Exposure type	List:
Carbon black	3.5 mg/m3	Recommended exposure limit (REL):		NIOSH
	0.1 mg/m3	Recommended exposure limit (REL):		NIOSH
	3.5 mg/m3	PEL:		OSHA Z1
	3.5 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	3.5 mg/m3	Time Weighted Average (TWA):		MX OEL
	7 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
Iron oxide	10 mg/m3	PEL:	Fume.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	as Fe	MX OEL
	10 mg/m3	Short Term Exposure Limit (STEL):	as Fe	MX OEL
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
Rutile, antimony chromium buff	0.5 mg/m3	Recommended exposure limit (REL):	as Cr	NIOSH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
	0.5 mg/m3	Recommended exposure limit (REL):	as Sb	NIOSH
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	OSHA Z1A
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	MX OEL
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):		ACGIH
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):	as Ti	MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):	as Ti	MX OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Colour Odour : solid: pellets: BLACK: very faint

Evaporation rate Specific Gravity Bulk density Vapour pressure Not applicableNot determinedNot establishednot applicable

5/9

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MATERIAL SAFETY DATA SHEET 5B8A CHARCOAL BLACK TG3S

Version Number 1.0 Revision Date 03/29/2012

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Melting point/range Boiling Point: Water solubility	Not determinednot applicableinsoluble	Vapour density pH	: not applicable : not applicable
	10. STABILITY ANI	D REACTIVITY	
Stability	: Stable		
Hazardous Polymerization	: Will not occur.		
Conditions to avoid	: Keep away from ox decomposition, do	00	flame. To avoid thermal
Incompatible Materials	: Incompatible with s	strong acids and oxidizin	g agents.
Hazardous decomposition products		D2), carbon monoxide (C dous materials, and smok	

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
70624-18-9	1,6-Hexanediamine, N,N'-	Irritant	Eyes, Skin, Respiratory
	bis(2,2,6,6-tetramethyl-4-		system.
	piperidinyl)-,polymer with		
	2,4,6-trichloro-1,3,5-		
	triazine, reaction products		
26741-53-7	2,4,8,10-Tetraoxa-3,9-	Toxic	Refer to LC50 / LD50 Data on
	diphosphaspiro[5.5]undeca		MSDS
	ne, 3,9-bis[2,4-bis(1,1-		
	dimethylethyl)phenoxy]-		
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
1309-37-1	Iron oxide	Systemic effects	Respiratory system.
68186-90-3	Rutile, antimony	Irritant	Eyes, Skin, Respiratory
	chromium buff		system.
13463-67-7	Titanium dioxide	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

PolyOne

Page 5 of 9 Print Date 8/25/2012

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MATERIAL SAFETY DATA SHEET 5B8A CHARCOAL BLACK TG3S

Version Number 1.0 Revision Date 03/29/2012 Page 6 of 9 Print Date 8/25/2012

70624-18-9	1,6-Hexanediamine, N,N'-	Oral LD50	> 2,000 mg/kg	rat
	bis(2,2,6,6-tetramethyl-4-	Dermal LD50	> 3,000 mg/kg	rat
	piperidinyl)-,polymer with			
	2,4,6-trichloro-1,3,5-			
	triazine, reaction products			
26741-53-7	2,4,8,10-Tetraoxa-3,9-	LC50	> 2 gm/m3	rat
	diphosphaspiro[5.5]undeca	Oral LD50	5,580 mg/kg	rat
	ne, 3,9-bis[2,4-bis(1,1-	Dermal LD50	> 200 mg/kg	rabbit
	dimethylethyl)phenoxy]-			
1333-86-4	Carbon black	Oral LD50	> 15,400 mg/kg	rat
		Dermal LD50	> 3 gm/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
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.

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 polymer matrix.
Bioaccumulation Potential	:	Chemicals are not readily available as they are bound within the polymer matrix.

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MATERIAL SAFETY DATA SHEET 5B8A CHARCOAL BLACK TG3S

Version Number 1.0 Revision Date 03/29/2012 Page 7 of 9 Print Date 8/25/2012

	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	: 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 Hazardou	s Substances (40 CFR 302)
not applicable	
California Proposition 65	: Not applicable
SARA Title III Section 302 E	stremely Hazardous Substance

MATERIAL SAFETY DATA SHEET **5B8A CHARCOAL BLACK TG3S**

Version Number 1.0 Revision Date 03/29/2012 Page 8 of 9 Print Date 8/25/2012

SARA Title III Section 313 Toxic Chemicals:

U	Inless specific chemicals are identified under this section, this	product is Not Ap	plicable under this regulation	on
	Charles 1 No.	CAC N.	XX7 . 1.4	

Chemical Name	CAS-No.	Weight percent
CHROMIUM III COMPOUNDSCHROMIUM III	68186-90-3	1.00 - 5.00
COMPOUNDSANTIMONY		
COMPOUNDSCHROMIUM COMPOUNDS		

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
Rutile, antimony chromium buff	68186-90-3	1.00 - 5.00	

WHMIS Classification : D1B

WHMIS Ingredient Disclosure List

CAS-No.
1333-86-4
1309-37-1
68186-90-3

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

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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.

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MATERIAL SAFETY DATA SHEET 5B8A CHARCOAL BLACK TG3S

Version Number 1.0 Revision Date 03/29/2012 Page 9 of 9 Print Date 8/25/2012