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MATERIAL SAFETY DATA SHEET **DISH DARK GREY 52**

Version Number 1.1 Revision Date 03/21/2014

Page 1 of 8 Print Date 3/25/2014

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

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	:	DISH DARK GREY 52
Product code	:	CC10137410
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Carbon black	1333-86-4	1 - 5
Iron oxide	1309-37-1	1 - 5
Rutile, antimony chromium buff	68186-90-3	10 - 30
Titanium dioxide	13463-67-7	10 - 30

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	: Resin particles, like other inert materials, can be mechanically irritating.
Ingestion	: May be harmful if swallowed.
Eyes	: Resin particles, like other inert materials, are mechanically irritating to eyes.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.

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MATERIAL SAFETY DATA SHEET **DISH DARK GREY 52**

Version Number 1.1 Revision Date 03/21/2014 Page 2 of 8 Print Date 3/25/2014

Medical Conditions Aggravated by Exposure:	: None known.	
<i>ee</i> 1	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 sympto persist or in all cases of doubt seek medical advice.	ms
Eyes	: Rinse immediately with plenty of water, also under the eyelids, least 15 minutes. If eye irritation persists, seek medical attentio	
Skin	: Wash off with soap and plenty of water. If skin irritation persis seek medical attention.	ts
	5. FIREFIGHTING MEASURES	
Flash point	: not applicable	
Flammable Limits Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media	 not applicable not applicable not applicable Carbon dioxide blanket, Water spray, Dry powder, Foam. 	
Special Fire Fighting Procedures	: Fullface self-contained breathing apparatus (SCBA) used in pos pressure mode should be worn to prevent inhalation of airborne	itive
Unusual Fire/Explosion Hazards	 contaminants. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrog (NOx), other hazardous materials, and smoke are all possible. 	en
	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 be allowed to enter drains, water courses or the soil.	ld not
Methods for cleaning up	: Clean up promptly by sweeping or vacuum. Package all materia plastic, cardboard or metal containers for disposal.	al in
-	be allowed to enter drains, water courses or the soil.: Clean up promptly by sweeping or vacuum. Package all materia	

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MATERIAL SAFETY DATA SHEET **DISH DARK GREY 52**

sion Number 1.1 <i>r</i> ision Date 03/21/2014		Page 3 of Print Date 3/25/201
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. EX	POSU	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 **DISH DARK GREY 52**

Version Number 1.1 Revision Date 03/21/2014 Page 4 of 8 Print Date 3/25/2014

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: GREY: very faint

Evapouration rate Specific Gravity Bulk density Vapour pressure

Not applicableNot determinedNot establishednot applicable

MATERIAL SAFETY DATA SHEET **DISH DARK GREY 52**

Version Number 1.1 Revision Date 03/21/2014

Melting point/range Boiling Point: Water solubility	: no	ot determined ot applicable soluble	Vapour density pH	:	not applicable not applicable
	1(). STABILITY AND RE	EACTIVITY		
Stability	:	The product is stable if	stored and handled as p	oresc	cribed.
Hazardous Polymerization	:	Will not occur.			
Conditions to avoid	:	Keep away from oxidiz decomposition, do not o		me.	To avoid thermal
Incompatible Materials	:	Incompatible with stron	g acids and oxidizing a	gen	ts.
Hazardous decomposition products	:	Carbon dioxide (CO2), (NOx), other hazardous	· · · ·	·	U

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
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
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.

Page 5 of 8 Print Date 3/25/2014

PolvOne

MATERIAL SAFETY DATA SHEET DISH DARK GREY 52

Version Number 1.1 Revision Date 03/21/2014

Page 6 of 8 Print Date 3/25/2014

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.
Additional advice	: no data available
	13. DISPOSAL CONSIDERATIONS
Product Contaminated packaging	 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. 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.

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MATERIAL SAFETY DATA SHEET **DISH DARK GREY 52**

Version Number 1.1 Revision Date 03/21/2014 Page 7 of 8 Print Date 3/25/2014

	15	5. REGULATORY	Y INFOI	RMATIO	ON			
US Regulations:								
OSHA Status		Classified as her	ardous h	and on	omnonon	to		
	•	Classified as haz			-			
TSCA Status	:	All components TSCA Inventory		roduct ar	e listed or	1 or exen	npt from t	he
US. EPA CERCLA Hazardous	s Sub	stances (40 CFR 3	02)					
not applicable								
California Proposition 65	:	Not applicable						
SARA Title III Section 302 Ex	trem							
Unless specific chemicals are i		•		product	is Not Ap	plicable	under this	s regulat
SARA Title III Section 313 To Unless specific chemicals are i	ident	ified under this sec	tion, this	product	is Not Ap	plicable	under this	-
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SARA Title III Section 313 To Unless specific chemicals are in Chemical Name CHROMIUM III COMPOU COMPOUNDSANTIMON COMPOUNDSCHROMIUM Canadian Regulations: National Pollutant Rele Chemical Name	ident oxic (ident INDS Y M CC	ified under this sec Chemicals: ified under this sec SCHROMIUM III OMPOUNDS	tion, this	o.	is Not Ap o. 0-3 Weigh percen	plicable Weight 10.00 - t t	under this percent - 30.00	s regulat
CHROMIUM III COMPOU COMPOUNDSANTIMON COMPOUNDSCHROMIUM Canadian Regulations: National Pollutant Rele	ident oxic (ident INDS Y M CC	ified under this sec Chemicals: ified under this sec SCHROMIUM III OMPOUNDS	ction, this	e product CAS-N 68186-9 0.	is Not Ap lo. 00-3 Weigh percen 0.10 -	plicable Weight 10.00 - t t	under this percent - 30.00	s regulat
SARA Title III Section 313 To Unless specific chemicals are in Chemical Name CHROMIUM III COMPOU COMPOUNDSANTIMON COMPOUNDSCHROMIUM Canadian Regulations: National Pollutant Rele Chemical Name Aluminum oxide	ident oxic (ident INDS Y M CC	ified under this sec Chemicals: ified under this sec SCHROMIUM III OMPOUNDS	cas-N	e product CAS-N 68186-9 0.	is Not Ap lo. 00-3 Weigh percen 0.10 -	plicable Weight 10.00 - t t 1.00	under this percent - 30.00	s regulat
SARA Title III Section 313 To Unless specific chemicals are in Chemical Name CHROMIUM III COMPOU COMPOUNDSANTIMON COMPOUNDSCHROMIUM Canadian Regulations: National Pollutant Rele Chemical Name Aluminum oxide	ident oxic (ident VNDS Y M CC ase I buff	ified under this sec Chemicals: ified under this sec SCHROMIUM III OMPOUNDS	cas-N	e product CAS-N 68186-9 0.	is Not Ap lo. 00-3 Weigh percen 0.10 -	plicable Weight 10.00 - t t 1.00	under this percent - 30.00	s regulat

PolyOne

MATERIAL SAFETY DATA SHEET DISH DARK GREY 52

Version Number 1.1 Revision Date 03/21/2014 Page 8 of 8 Print Date 3/25/2014

	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	:	Listed
Korea KECI	:	Listed
Philippines PICCS	:	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 used in combination with any other materials or in any process, unless specified in the text.