## MATERIAL SAFETY DATA SHEET GREY

Version Number 1.1 Revision Date 03/13/2014

CAS-No.

Product Use

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## 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	:	GREY
Product code	:	CC10130203
Chemical Name	:	Mixture

## : Mixture

: Industrial Applications

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Phenol, 2-(2H-benzotriazol-2-yl)-4,6-	25973-55-1	5 - 10
bis(1,1-dimethylpropyl)-		
Decanedioic acid, bis(2,2,6,6-tetramethyl-4-	52829-07-9	5 - 10
piperidinyl) ester		
Styrene	100-42-5	0.1 - 1
Rutile, antimony chromium buff	68186-90-3	1 - 5
Silica, amorphous	7631-86-9	1 - 5
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.



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Ingestion Eyes	<ul><li>May be harmful if swallowed.</li><li>Resin particles, like other inert materials, are mechanically irritating to</li></ul>
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. FIREFIGHTING MEASURES
Flash point	: not applicable
Flammable Limits	
Upper explosion limit	: not applicable
Lower explosion limit	: not applicable
Auto-ignition temperature Suitable extinguishing media	<ul><li>not applicable</li><li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li></ul>
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	<ul> <li>contaminants.</li> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.</li> </ul>
	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.



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Methods for cleaning up	:	Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal.
		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. 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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Components	Value	Exposure time	Exposure type	List:
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
Silica, amorphous	6 mg/m3	Recommended exposure limit (REL):		NIOSH
	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
Styrene	20 ppm	Time Weighted Average (TWA):		ACGIH
	40 ppm	Short Term Exposure Limit (STEL):		ACGIH
	50 ppm 215 mg/m3	Recommended exposure limit (REL):		NIOSH
	100 ppm 425 mg/m3	Short Term Exposure Limit (STEL):		NIOSH
	100 ppm	Time Weighted Average (TWA):		OSHA Z2
	200 ppm	Ceiling Limit Value:		OSHA Z2
	600 ppm	Maximum concentration:		OSHA Z2
	50 ppm 215 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	100 ppm 425 mg/m3	Short Term Exposure Limit (STEL):		OSHA Z1A
	50 ppm 215 mg/m3	Time Weighted Average (TWA):		MX OEL
	100 ppm 425 mg/m3	Short Term Exposure Limit (STEL):		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



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	20 mg/m3	Short Term Exposure I (STEL):	Limit as T	Гі	MX OEL
	9. PHYSI	CAL AND CHEMICAI	PROPERTIES		
Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility	: Not	ets S EY I faint V determined V upplicable I	Evapouration rate Specific Gravity Bulk density Vapour pressure Vapour density DH	: No : No : not : not	t applicable t determined t established applicable applicable applicable
	10. 5	STABILITY AND REA	CTIVITY		
Stability		The product is stable if sto	ored and handled as	prescribe	d.
Hazardous Polymerization	: V	Vill not occur.			
Conditions to avoid		Keep away from oxidizing ecomposition, do not ove		ame. To	avoid therma
Incompatible Materials	: Iı	ncompatible with strong	acids and oxidizing	agents.	
Hazardous decomposition products		Carbon dioxide (CO2), ca NOx), other hazardous m			

## 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.
52829-07-9	Decanedioic acid, bis(2,2,6,6-tetramethyl-4- piperidinyl) ester	Irritant	Eyes.
100-42-5	Styrene	Irritant	Eyes, Respiratory system.
		Systemic effects	Eyes, Skin, Respiratory system, Liver, central nervous system (CNS).
68186-90-3	Rutile, antimony chromium buff	Irritant	Eyes, Skin, Respiratory system.
7631-86-9	Silica, amorphous	Irritant	Eyes, Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

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#### 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
52829-07-9	Decanedioic acid, bis(2,2,6,6-tetramethyl-4- piperidinyl) ester	Oral LD50 Dermal LD50	3,700 mg/kg > 3,100 mg/kg	rat rabbit
100-42-5	Styrene	LC50 Oral LD50	12 gm/m3 2,650 mg/kg	rat rat

#### Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
100-42-5	Styrene	no	2B	no
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:

Styrene 100-42-5 Irritating to eyes, skin, and respiratory tract with many CNS effects such as narcosis, cramps and respiratory tract paralysis.

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	: 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



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	applicable federa	al, state/provincial and lo	cal regulations.	
Contaminated packaging	material has the transportation an	ferred when possible. The responsibility for proper and disposal in accordance and local regulations.	waste classification,	al,
	14. TRANSPORT	INFORMATION		
U.S. DOT Classification	: Not regulated for	r transportation.		
ICAO/IATA	: Refer to specific	regulation.		
IMO/IMDG (maritime)	: Refer to specific	regulation.		
	15. REGULATOR	Y INFORMATION		
US Regulations:				
OSHA Status	: Classified as haz	zardous based on compon	ents.	
TSCA Status	: All components TSCA Inventory	of this product are listed	on or exempt from the	e
TSCA Status US. EPA CERCLA Hazardous	TSCA Inventory	7.	on or exempt from the	e
	TSCA Inventory	7.	on or exempt from the	2
US. EPA CERCLA Hazardous	TSCA Inventory	7.	on or exempt from the	2
US. EPA CERCLA Hazardous not applicable California Proposition	TSCA Inventory Substances (40 CFR 3 : Not applicable	7. 302)	on or exempt from the	2
US. EPA CERCLA Hazardous not applicable California Proposition 65	TSCA Inventory Substances (40 CFR 3 : Not applicable	bstance		
US. EPA CERCLA Hazardous not applicable California Proposition 65 SARA Title III Section 302 Ex Unless specific chemicals are in SARA Title III Section 313 To	TSCA Inventory s Substances (40 CFR 3 : Not applicable atremely Hazardous Sub identified under this sec	bstance ction, this product is Not	Applicable under this	regula
US. EPA CERCLA Hazardous not applicable California Proposition 65 SARA Title III Section 302 Ex Unless specific chemicals are in SARA Title III Section 313 To Unless specific chemicals are in	TSCA Inventory s Substances (40 CFR 3 : Not applicable atremely Hazardous Sub identified under this sec	bstance ction, this product is Not	Applicable under this	regula
US. EPA CERCLA Hazardous not applicable California Proposition 65 SARA Title III Section 302 Ex Unless specific chemicals are in SARA Title III Section 313 To	TSCA Inventory s Substances (40 CFR 3 : Not applicable attremely Hazardous Sub dentified under this sec oxic Chemicals: <u>identified under this sec</u>	bstance ction, this product is Not	Applicable under this	regula

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Canadian Regulations:

CAS-No.	Weight	NPRI ID#
	percent	
68186-90-3	1.00 - 5.00	
100-42-5	0.10 - 1.00	
	68186-90-3	percent           68186-90-3         1.00 - 5.00

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
68186-90-3
7631-86-9
100-42-5

:

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.