MATERIAL SAFETY DATA SHEET GRIS

Version Number 1.1 Revision Date 06/06/2012

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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	:	GRIS
Product code	:	CC10161944
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

: Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight percent
Phenol, 2-(2H-benzotriazol-2-yl)-4,6-	25973-55-1	1 - 5
bis(1,1-dimethylpropyl)-		
Decanedioic acid, bis(2,2,6,6-tetramethyl-4-	52829-07-9	1 - 5
piperidinyl) ester		
Carbon black	1333-86-4	1 - 5
Silica, amorphous, precipitated and gel	112926-00-8	1 - 5
Rutile, antimony chromium buff	68186-90-3	5 - 10
Titanium dioxide	13463-67-7	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 enduser (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	: May be harmful if swallowed.
-	. May be bermful if guallowed
	: 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 a 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 contaminants.
Unusual Fire/Explosion	: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen
Hazards	(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 no 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. 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. EX	POSURE 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:
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
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, precipitated and gel	6 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	0.8 mg/m3	Time Weighted Average (TWA):		Z3
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 Melting point/range
- : solid
 : pellets
 : GREY
 : very faint
 : Not determined
- Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density
- Not applicableNot determinedNot established
- : not applicable
- : not applicable





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Boiling Point: Water solubility	: not applicable pH : not applicable : 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 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.

<u>Toxicity Overview</u> 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-	Systemic effects	Kidney, Liver, reproductive
	benzotriazol-2-yl)-4,6-		system.
	bis(1,1-dimethylpropyl)-		
52829-07-9	Decanedioic acid,	Irritant	Eyes.
	bis(2,2,6,6-tetramethyl-4-		
	piperidinyl) ester		
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
112926-00-8	Silica, amorphous,	Irritant	Respiratory system, Eyes.
	precipitated and gel		
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
52829-07-9	Decanedioic acid,	Oral LD50	3,700 mg/kg	rat
	bis(2,2,6,6-tetramethyl-4-	Dermal LD50	> 3,100 mg/kg	rabbit
	piperidinyl) ester			
1333-86-4	Carbon black	Oral LD50	>15,400 mg/kg	rat
		Dermal LD50	> 3 gm/kg	rabbit

Carcinogenicity

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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

: Not readily biodegradable.
: Chemicals are not readily available as they are bound within the polymer matrix.
: Chemicals are not readily available as they are bound within the polymer matrix.
: no data available
13. DISPOSAL CONSIDERATIONS
: 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.
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		transportation as state/provincial				ith applic	able fede	ral,
	-	14. TRANSPORT	INFOR	MATION				
U.S. DOT Classification	:	Not regulated for	or transpo	rtation.				
ICAO/IATA	:	Refer to specific	e regulation	on.				
IMO/IMDG (maritime)	:	Refer to specific	regulati	on.				
	1:	5. REGULATOR	Y INFO	RMATIO	N			
US Regulations:								
OSHA Status	:	Classified as ha	zardous b	ased on co	mponen	ts.		
TSCA Status	:	All components		roduct are	listed or	n or exen	npt from ti	he
US. EPA CERCLA Hazardo	us Sub	stances (40 CFR 3	302)					
not applicable								
California Propositio 65	n :	Not applicable						
SARA Title III Section 302	Extrem	nely Hazardous Su	bstance					
Unless specific chemicals are	e ident	ified under this se	ction, this	s product is	s Not Ap	pplicable	under this	s regula
SARA Title III Section 313	Toxic (Chemicals:						
Unless specific chemicals ar	e ident	ified under this se	ction, this					s regula
Chemical Name CHROMIUM III COMPC	UNDS	SCHROMIUM III		CAS-No. 68186-90-		Weight 5.00 -	percent	
COMPOUNDSANTIMO	NY				-			
COMPOUNDSCHROMI	UM CO	DMPOUNDS						
Canadian Regulations:								
Canadian Regulations: National Pollutant Re	lease I	nventory (NPRI)			[·			
Canadian Regulations:	lease I	nventory (NPRI)	CAS-N	0.	Weigh percen		NPRI II	D#
Canadian Regulations:	lease I	nventory (NPRI)	CAS-N	0.	-		NPRI II	D#



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Rutile, antimony chromium b	uff	68186-90-3	5.00 - 10.00	
WHMIS Ingredient Disc CAS-No. 1333-86-4 68186-90-3				
DSL		s of this product a (DSL) or are exer	re on the Canadian mpt.	Domestic
National Inventories:				
Australia AICS	: Not determined			
China IECS	: Listed			
Europe EINECS	: Listed			
Japan ENCS	: Not determined			
Korea KECI	: Listed			
Philippines PICCS	: Listed			
	16. OTHER I	NFORMATION		

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.