



# POLYONE CORPORATION

## MATERIAL SAFETY DATA SHEET

### GRIS 191 C ABS

Version Number 1.1  
Revision Date 03/13/2014

Page 1 of 9  
Print Date 3/20/2014

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**POLYONE CORPORATION**  
33587 Walker Road, Avon Lake, OH 44012

Telephone : 1 (440) 930-1000 or 1 (866) POLYONE  
Emergency telephone : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure number or accident).**

Product name : GRIS 191 C ABS  
Product code : CC10128993  
Chemical Name : Mixture  
CAS-No. : Mixture  
Product Use : Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylpropyl)-	25973-55-1	1 - 5
Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester	52829-07-9	1 - 5
Styrene	100-42-5	0.1 - 1
Carbon black	1333-86-4	1 - 5
Silica, amorphous	7631-86-9	1 - 5
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 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.

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GRIS 191 C ABS**

Version Number 1.1  
Revision Date 03/13/2014

Page 2 of 9  
Print Date 3/20/2014

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.

**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 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 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 : 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 Hazards : Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), 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.

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GRIS 191 C ABS**

Version Number 1.1  
Revision Date 03/13/2014

Page 3 of 9  
Print Date 3/20/2014

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. 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 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)

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GRIS 191 C ABS**

Version Number 1.1  
Revision Date 03/13/2014

Page 4 of 9  
Print Date 3/20/2014

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
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

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GRIS 191 C ABS**

Version Number 1.1

Page 5 of 9

Revision Date 03/13/2014

Print Date 3/20/2014

	20 mg/m <sup>3</sup>	Short Term Exposure Limit (STEL):	as Ti	MX OEL
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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: solid	Evaporation rate	: Not applicable
Appearance	: pellets	Specific Gravity	: Not determined
Colour	: GREY	Bulk density	: Not established
Odour	: very faint	Vapour pressure	: not applicable
Melting point/range	: Not determined	Vapour density	: not applicable
Boiling Point:	: not applicable	pH	: not applicable
Water solubility	: insoluble		

**10. STABILITY AND REACTIVITY**

Stability	: The product is stable if stored and handled as prescribed.
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 (CO <sub>2</sub> ), carbon monoxide (CO), oxides of nitrogen (NO <sub>x</sub> ), 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.

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-piperidiny) ester	Irritant	Eyes.
100-42-5	Styrene	Irritant	Eyes, Respiratory system.
		Systemic effects	Eyes, Skin, Respiratory system, Liver, central nervous system (CNS).
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
7631-86-9	Silica, amorphous	Irritant	Eyes, Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GRIS 191 C ABS**

Version Number 1.1  
 Revision Date 03/13/2014

Page 6 of 9  
 Print Date 3/20/2014

**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
1333-86-4	Carbon black	Oral LD50 Dermal LD50	> 15,400 mg/kg > 3 gm/kg	rat 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
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.

**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.

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GRIS 191 C ABS**

Version Number 1.1  
Revision Date 03/13/2014

Page 7 of 9  
Print Date 3/20/2014

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 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 Hazardous Substances (40 CFR 302)

not applicable

California Proposition : Not applicable  
65

SARA Title III Section 302 Extremely Hazardous Substance

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GRIS 191 C ABS**

Version Number 1.1  
Revision Date 03/13/2014

Page 8 of 9  
Print Date 3/20/2014

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Chemical Name	CAS-No.	Weight percent
ZINC COMPOUNDS	68187-51-9	1.00 - 5.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Zinc ferrite brown spinel (C.I. Pigment Yellow 119)	68187-51-9	1.00 - 5.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
1333-86-4
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 : Not determined
- Korea KECI : Not determined
- Philippines PICCS : Listed

**16. OTHER INFORMATION**





**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GRIS 191 C ABS**

Version Number 1.1  
Revision Date 03/13/2014

Page 9 of 9  
Print Date 3/20/2014

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