MATERIAL SAFETY DATA SHEET COVIDIEN GREY

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POLYONE CORPORATI 33587 Walker Road, Avor		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	:	COVIDIEN GREY
Product code	:	CC10156581
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

Components	CAS-No.	Weight percent
Carbon black	1333-86-4	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	
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.
Chronic exposure	: Refer to Section 11 for Toxicological Information.

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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 Lower explosion limit Autoignition temperature Suitable extinguishing media	 not applicable not applicable not applicable Carbon dioxide blanket, Water spray, Dry powder, Foam.
Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne 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.
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.

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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 req	uired.
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 saf practice. Wash hands before breaks and at the end of work	•
Engineering measures	: Heat only in areas with appropriate exhaust ventilation. Pr appropriate exhaust ventilation at machinery.	ovide

Exposure limit(s)

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility : solid
: pellets
: GREY
: very faint
: Not determined
: not applicable
: insoluble

Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH Not applicable
Not determined
Not established
not applicable
not applicable
not applicable

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	10. STABILITY AND REACTIVITY				
Sta	bility	:	Stable		
Ha	zardous Polymerization	:	Will not occur.		
Co	nditions to avoid	:	Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.		
Inc	ompatible Materials	:	Incompatible with strong acids and oxidizing agents.		
	zardous decomposition ducts	:	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.

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.	

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

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.



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

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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 regulationChemical NameCAS-No.Weight percentZINC COMPOUNDS1314-98-310.00 - 30.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)			
Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
Phthalocyanine green	1328-53-6	0.10 - 1.00	
Zinc sulfide	1314-98-3	10.00 - 30.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

:

CAS-No.
1333-86-4

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

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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.