MATERIAL SAFETY DATA SHEET **YELLOW**

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone:Emergency telephone:number	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name :	YELLOW
Product code :	CC10061358
Chemical Name :	Mixture
CAS-No. :	Mixture
Product Use :	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Titanium dioxide	13463-67-7	5 - 10
Barium sulfate	7727-43-7	10 - 30
Cadmium	7440-43-9	10 - 30
Chrome yellow (Lead chromate pigment)	1344-37-2	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 Ingestion	Resin particles, like other inert materials, can be mechanically irritating.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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Aggravated by Exposure:	
	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 see 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, foamnone.
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 1 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

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: 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 resp	piratory protective equipment normally required.
Eye/Face Protection	Safety glasses w	ith side-shields.
Hand protection	Protective glove	s.
Skin and body protection	Long sleeved clo	othing.
Additional Protective Measures	Safety shoes.	
General Hygiene Considerations		lance with good industrial hygiene and safety practice. ore breaks and at the end of workday.
Engineering measures	•	as with appropriate exhaust ventilation. Provide aust ventilation at machinery.

Exposure limit(s)



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Components	Value	Exposure time	Exposure type	List:
Barium sulfate	10 mg/m3	Time Weighted Average (TWA):	Total dust.	ACGIH
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
Cadmium	0.01	Time Weighted Average	Inhalable fraction. as	ACGIH
	mg/m3	(TWA):	Cd	
	0.005	Time Weighted Average	Total as Cd	OSHA
	mg/m3	(TWA):		
	0.002	Time Weighted Average	Respirable fraction. as	ACGIH
	mg/m3	(TWA):	Cd	
	0.01	Time Weighted Average	as Cd	ACGIH
	mg/m3	(TWA):		
	0.2 mg/m3	Time Weighted Average (TWA):		OSHA Z2
	0.1 mg/m3	Time Weighted Average (TWA):		OSHA Z2
	0.6 mg/m3	Ceiling Limit Value:		OSHA Z2
	0.3 mg/m3	Ceiling Limit Value:		OSHA Z2
Chrome yellow (Lead	0.05	Time Weighted Average		OSHA
chromate pigment)	mg/m3	(TWA):		
	0.03	OSHA Action level:		OSHA
	mg/m3			
	0.01	Time Weighted Average	as Cr	ACGIH
	mg/m3	(TWA):		
	0.05	Time Weighted Average	as Pb	ACGIH
	mg/m3	(TWA):		
	1 mg/m3	PEL:	as Cr	OSHA Z1
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):		ACGIH
	15 mg/m3	PEL:	Total dust.	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Color Odor Melting point/range Boiling Point: Water solubility
- Solid
 Pellets
 YELLOW
 Very faint
 Not determined
 Not applicable
 Insoluble
- Evaporation rate Specific Gravity: Bulk density Vapor pressure Vapour density pH

: Keep away from oxidizing agents and open flame. To avoid thermal

- : Not applicable
- : Not determined
- Not establishedNot applicable
- : Not applicable
- : Not applicable
 - Not applicable

10. STABILITY AND REACTIVITY

Stability

: Stable.

Hazardous Polymerization : Will not occur.

Conditions to avoid

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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.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
7727-43-7	Barium sulfate	Irritant	Respiratory system.
		Systemic effects	Eyes, Respiratory system.
7440-43-9	Cadmium	Systemic effects	Respiratory system, blood and blood forming system, Kidney, urinary system, reproductive system.
		Highly Toxic	Refer to LC50 / LD50 Data on MSDS
1344-37-2	Chrome yellow (Lead chromate pigment)	Systemic effects	central nervous system (CNS), reproductive 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
7440-43-9	Cadmium	LC50	25 mg/m3	rat
		Oral LD50	2,330 mg/kg	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
7440-43-9	Cadmium	yes	1	1
1344-37-2	Chrome yellow (Lead	no	1	no
	chromate pigment)			

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:

PolvOne.

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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:

Cadmium 7440-43-9 Can produce rapid and sometimes fatal pulmonary edema, chronic absorption leads to liver and kidney damage.

Additional Health Hazard Information:

Chrome yellow (Lead chromate pigment) 1344-37-2 Systemic effects include neurotoxic, teratogenic, fetotoxic and reproductive with abdominal pain, anemia, pallor, decreased hand grip strength with characteristic "wrist drop".

	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	: 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 materia 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 (air)	: Refer to specific regulation.
IMO / IMDG (maritime)	: Refer to specific regulation.
	15. REGULATORY INFORMATION
US Regulations:	

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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)

:

Chemical Name	CAS-No.	RQ for component	RQ for Mixture/Product
Cadmium	7440-43-9	010 lbs	71 LB

California Proposition 65 : WARNING! This product contains a chemical known to the State of California to cause cancer., WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

SARA Title III Section 302 Extremely Hazardous Substance Not applicable

SARA Title III Section 313 Toxic Chemicals:

Chemical Name	CAS-No.	Weight %
CADMIUM	7440-43-9	14.10
CHROMIUM VI COMPOUNDSLEAD	1344-37-2	31.74
COMPOUNDS, INORGANICLEAD		
COMPOUNDS		
ZINC COMPOUNDS	1314-98-3	1.41

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Cadmium	7440-43-9	14.10	233
Chrome yellow (Lead chromate pigment)	1344-37-2	31.74	235
Chrome yellow (Lead chromate pigment)	1344-37-2	31.74	236
Zinc sulfide	1314-98-3	1.41	231

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.	
7440-43-9	
1344-37-2	



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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	:	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 when used in combination with any other materials and/or in any particular process or processing conditions.