

#### MATERIAL SAFETY DATA SHEET

### ORANGE

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#### 1. PRODUCT AND COMPANY IDENTIFICATION

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

NON-EMERGENCY TELEPHONE	:	Product Stewardship (770) 271-5902	
Emergency telephone number	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).	
Product name	:	ORANGE	
Product code	:	CC10018138	
Chemical Name	:	Mixture	
CAS-No.	:	Mixture	
Product Use	:	Industrial Applications	

#### 2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Components	CAS-No.	Weight %
Chrome yellow (Lead chromate pigment)	1344-37-2	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Molybdate orange (Lead chromate pigment)	12656-85-8	5 - 10
Calcium carbonate	1317-65-3	10 - 30

#### **3. HAZARDS IDENTIFICATION**

#### **EMERGENCY OVERVIEW**

This mixture has not been evaluated as a whole. 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	<ul><li>Resin particles, like other inert materials, can be mechanically irritating.</li><li>May be harmful if swallowed.</li></ul>
Eyes	<ul> <li>Resin particles, like other inert materials, are mechanically irritating to eyes.</li> </ul>
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 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 see medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: Not applicable
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not relevant</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	contaminants. : None
	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	:	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.
8. EXPOS	UF	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:
Calcium carbonate	10 mg/m3	Time Weighted Average (TWA):	Total dust.	ACGIH
Calcium carbonate	5 mg/m3	PEL:	Respirable dust.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
Chrome yellow (Lead chromate pigment)	0.01 mg/m3	Time Weighted Average (TWA):	as Cr(VI)	ACGIH
Chrome yellow (Lead chromate pigment)	1 mg/m3	PEL:	as Cr	OSHA Z1
Chrome yellow (Lead chromate pigment)	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	ACGIH
Chrome yellow (Lead chromate pigment)	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	OSHA
	0.10 mg/m3	Ceiling Limit Value:	as CrO3	OSHA Z2
	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	ACGIH
Molybdate orange (Lead chromate pigment)	0.01 mg/m3	Time Weighted Average (TWA):	as Cr(VI)	ACGIH
Molybdate orange (Lead chromate pigment)	1 mg/m3	PEL:	as Cr	OSHA Z1
Molybdate orange (Lead chromate pigment)	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	ACGIH
Molybdate orange (Lead chromate pigment)	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	OSHA
	0.10 mg/m3	Ceiling Limit Value:	as CrO3	OSHA Z2
Molybdate orange (Lead chromate pigment)	0.01 mg/m3	Time Weighted Average (TWA):	as Cr(VI)	ACGIH
Molybdate orange (Lead chromate pigment)	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	ACGIH
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):	Total dust.	ACGIH
Titanium dioxide	15 mg/m3	PEL:	Total dust.	OSHA Z1

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Color Odor Melting point/range: Not determinedBoiling Point:: Not applicableWater solubility: Insoluble Water solubility

: Solid : Pellets : ORANGE : Very faint : Insoluble

Specific Gravity Bulk density Vapor pressure Vapor density pH

Evaporation rate : Not applicable. : Not determined : Not established : Not applicable : Not applicable : Not applicable



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10. STABILITY AND REACTIVITY			
Stability	:	Stable.	
Hazardous Polyn	nerization :	Will not occur.	
Conditions to ave	oid :	Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.	
Incompatible Ma	aterials :	Incompatible with strong acids and oxidizing agents.	
Hazardous decor products	nposition :	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
1344-37-2	Chrome yellow (Lead	Systemic effects	central nervous system,
	chromate pigment)		reproductive system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
12656-85-8	Molybdate orange (Lead	Irritant	Eyes, Skin.
	chromate pigment)		
		Systemic effects	central nervous system,
			reproductive system.
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, Respiratory system.

Carcinogenicity:

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
1344-37-2	Chrome yellow (Lead	no	1	1
	chromate pigment)			
12656-85-8	Molybdate orange (Lead	no	no	1
	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:



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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:

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".

#### Additional Health Hazard Information:

Molybdate orange (Lead chromate pigment) 12656-85-8 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 matrix of the polymer.
Bioaccumulation Potential	: Chemicals are not readily available as they are bound within the matrix of the polymer.
Additional advice	: No data available.
	13. DISPOSAL CONSIDERATIONS
Product	: Like most thermoplastics 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. D.O.T. / CA T.D.G. Classification (Non-bulk ground)	: Not regulated for transportation.
ICAO/IATA	: Not regulated for transportation.
IMO / IMDG	: Not regulated for transportation.
	15. REGULATORY INFORMATION

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US Regulations:				
OSHA Status :	Classified as haza	ardous based on comp	onents.	
TSCA Status :	All components o exempt.	f this product are liste	d on the TSCA inve	entory or are
US. EPA CERCLA Hazardous Sub	bstances (40 CFR 30	)2)		
Not applicable				
California Proposition : 65	California to caus	s product contains a c se cancer., WARNING in the State of Californ e harm.	G! This product con	ntains a
SARA Title III Section 313 Toxic	Chemicals:	GARN	Without	1
Chemical Name		CAS-No.	Weight %	l

Chemical Name	CAS-No.	Weight %
CHROMIUM VI COMPOUNDS	1344-37-2	2.20
LEAD COMPOUNDS, INORGANIC		
CHROMIUM VI COMPOUNDS	12656-85-8	6.60
LEAD COMPOUNDS, INORGANIC		

Canadian Regulations:

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.	
1344-37-2	
12656-85-8	

DSL

: Listed.

National Inventories:

Australia AICS	:	Listed.
China IECS	:	Listed.
Europe EINECS	:	Not determined.
Japan ENCS	:	Not determined.



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Korea KECI : Not determined.

**Philippines PICCS** 

: Not determined.

### **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.