



POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

USP1587 YELLOW ADDITIVE

Version Number 1.4
Revision Date 11/29/2012

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
8155 Cobb Center Drive, Kennesaw, GA 30152

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 : USP1587 YELLOW ADDITIVE
Product code : FO20006801
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Lead sulfate	7446-14-2	1 - 5
Silica, amorphous	7631-86-9	1 - 5
Chrome yellow (Lead chromate pigment)	1344-37-2	10 - 30
Lead chromate	7758-97-6	10 - 30
Titanium dioxide	13463-67-7	10 - 30

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants 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. See sections 8 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Skin contact, Ingestion

Acute exposure

Inhalation : Inhalation of airborne droplets may cause irritation of the respiratory tract.
Ingestion : May be harmful if swallowed.
Eyes : May cause eye and skin irritation.
Skin : Experience shows no unusual dermatitis hazard from routine handling.

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Chronic exposure : Refer to Section 11 for Toxicological Information.

Medical Conditions : None known.

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 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 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 : no data available

Flammable Limits

Upper explosion limit : no data available

Lower explosion limit : no data available

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 : May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), 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 : The product should not be allowed to enter drains, water courses or the soil. Should not be released into the environment.

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in

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appropriate container for disposal.

7. HANDLING AND STORAGE

- Handling : Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials.
- Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a cool dry 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)

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Components	Value	Exposure time	Exposure type	List:	
Chrome yellow (Lead chromate pigment)	0.005 mg/m3	Time Weighted Average (TWA):		OSHA	
	0.0025 mg/m3	OSHA Action level:		OSHA	
	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	ACGIH	
	0.05 mg/m3	Time Weighted Average (TWA):		OSHA	
	0.03 mg/m3	OSHA Action level:		OSHA	
	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	OSHA Z1A	
	0.15 mg/m3	Time Weighted Average (TWA):	Dust and fume. as Pb	MX OEL	
	Lead chromate	0.012 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
		0.05 mg/m3	Time Weighted Average (TWA):	as Pb	ACGIH
		0.005 mg/m3	Time Weighted Average (TWA):		OSHA
0.0025 mg/m3		OSHA Action level:		OSHA	
0.001 mg/m3		Recommended exposure limit (REL):	as Cr(VI)	NIOSH	
0.1 mg/m3		Ceiling Limit Value:		OSHA Z2	
0.1 mg/m3		Ceiling Limit Value:	as CrO3	OSHA Z1A	
0.01 mg/m3		Time Weighted Average (TWA):		MX OEL	
1 mg/m3		PEL:	as Cr	OSHA Z1	
1 mg/m3		Time Weighted Average (TWA):		OSHA Z1A	
Lead sulfate	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	OSHA	
	0.03 mg/m3	OSHA Action level:		OSHA	
	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	OSHA Z1A	
	0.15 mg/m3	Time Weighted Average (TWA):	Dust and fume. as Pb	MX OEL	
	Lead sulfate	0.05 mg/m3	Time Weighted Average (TWA):	as Pb	ACGIH
		0.05 mg/m3	Time Weighted Average (TWA):		OSHA
		0.03 mg/m3	OSHA Action level:		OSHA
		0.05 mg/m3	Time Weighted Average (TWA):	as Pb	OSHA Z1A

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	0.15 mg/m3	Time Weighted Average (TWA):	Dust and fume. as Pb	MX OEL
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
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	: liquid	Evaporation rate	: Not established
Appearance	: viscous, liquid	Specific Gravity	: Not determined
Colour	: YELLOW	Bulk density	: Not applicable
Odour	: very faint	Vapour pressure	: Not determined
Melting point/range	: not applicable	Vapour density	: Not determined
Boiling Point:	: not applicable	pH	: Not applicable
Water solubility	: immiscible		

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., Avoid contact with acetal homopolymers and acetal copolymers during processing.
Hazardous decomposition products	: Carbon dioxide (CO ₂), carbon monoxide (CO), oxides of nitrogen (NO _x), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 °C (350 °F), after 10 minutes at 204 °C (400 °F), and within 5 minutes at 232 °C (450 °F).

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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
7446-14-2	Lead sulfate	Corrosive	Skin.
7631-86-9	Silica, amorphous	Irritant	Eyes, Respiratory system.
1344-37-2	Chrome yellow (Lead chromate pigment)	Systemic effects	central nervous system (CNS), reproductive system.
7758-97-6	Lead chromate	Systemic effects	central nervous system (CNS), reproductive 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
7758-97-6	Lead chromate	Oral LD50	> 12 gm/kg	mouse

Carcinogenicity

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
7446-14-2	Lead sulfate	yes	2A	no
1344-37-2	Chrome yellow (Lead chromate pigment)	yes	1	no
7758-97-6	Lead chromate	yes	1	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:

Lead sulfate 7446-14-2 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:

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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:

Lead chromate 7758-97-6 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 : Environmental toxicity has not been established for this mixture as a whole.
Bioaccumulation Potential : no data available
Additional advice : no data available

13. DISPOSAL CONSIDERATIONS

Product : 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 : Refer to specific regulation.
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)



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Chemical Name	CAS-No.	RQ for component	RQ for Mixture/Product
Lead sulfate	7446-14-2	010 lbs	1,239 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

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
CHROMIUM VI COMPOUNDSCHROMIUM VI COMPOUNDSLEAD COMPOUNDSLEAD COMPOUNDS, INORGANIC	1344-37-2	10.00 - 30.00
CHROMIUM VI COMPOUNDSCHROMIUM COMPOUNDSLEAD COMPOUNDSLEAD COMPOUNDS, INORGANIC	7758-97-6	10.00 - 30.00
LEAD COMPOUNDSLEAD COMPOUNDS, INORGANIC	7446-14-2	0.10 - 1.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Chrome yellow (Lead chromate pigment)	1344-37-2	10.00 - 30.00	
Lead chromate	7758-97-6	10.00 - 30.00	
Lead sulfate	7446-14-2	0.10 - 1.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
1344-37-2
7758-97-6

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7446-14-2

7631-86-9

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 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.