V378 YELLOW

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
2700 Papin Street, St. Louis, MO 63103

NON-EMERGENCY TELEPHONE	:	Product Stewardship, (314) 771-1800
Emergency telephone number	:	**CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**

Product name	:	V378 YELLOW
Product code	:	FO00007697
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	0.1 - 1
Chromium oxide (CrO3)	1333-82-0	0.1 - 1
Titanium dioxide	13463-67-7	1 - 5
Prop00006- Misc. Organic Lead Cpd's	Proprietary	1 - 5

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	:	Resin particles, like other inert materials, can be mechanically irritating.
Ingestion	:	May be harmful if swallowed.
Eyes	:	Particulates, like other inert materials can be mechanically irritating.
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. FIRE-FIGHTING MEASURES

Flash point : Not applicable

Flammable Limits
- Upper explosion limit : Not applicable
- Lower explosion limit : Not applicable

Autoignition temperature : Not relevant

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.

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. 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. Keep in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection	:	No personal respiratory protective equipment normally required. If dusty conditions occur wear appropriate respiratory protection.
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)

Components	Value	Exposure time	Exposure type	List:
Chrome yellow (Lead chromate pigment)	0.01 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
Chrome yellow (Lead chromate pigment)	1 mg/m3	Time Weighted Average (TWA):		MX OEL
	1 mg/m3	PEL:		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):		OSHA
	0.03 mg/m3	OSHA Action level:		OSHA
Chrome yellow (Lead chromate pigment)	0.15 mg/m3	Time Weighted Average (TWA):	Dust and fume. as Pb	MX OEL
	0.45 mg/m3	Short Term Exposure Limit (STEL):	Dust and fume. as Pb	MX OEL
Chrome yellow (Lead chromate pigment)	0.01 mg/m3	Time Weighted Average (TWA):		ACGIH
Chrome yellow (Lead chromate pigment)	0.05 mg/m3	Time Weighted Average (TWA):		ACGIH
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):	Total dust.	ACGIH
Titanium dioxide	15 mg/m3	PEL:	Total dust.	OSHA Z1
Prop00006- Misc. Organic Lead Cpd's	0.05 mg/m3	Time Weighted Average (TWA):	Total dust. as Pb	OSHA
	0.05 mg/m3	Time Weighted Average (TWA):	Total dust. as Pb	ACGIH
Chromium oxide (CrO3)	0.1 mg/m3	Ceiling Limit Value:	as CrO3	OSHA Z1A
Chromium oxide (CrO3)	0.1 mg/m3	Ceiling Limit Value:	as CrO3	OSHA Z1A
Chromium oxide (CrO3)	0.05 mg/m3	Time Weighted Average (TWA):		ACGIH
Chromium oxide (CrO3)	0.05 mg/m3	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	as Cr	US CA OEL
	0.1 mg/m3	Ceiling Limit Value:	as Cr	US CA OEL
	0.5 mg/m3	Time Weighted Average (TWA):		MX OEL
	0.01 mg/m3	Time Weighted Average (TWA):		ACGIH
Chromium oxide (CrO3)	0.01 mg/m3	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	as Cr	US CA OEL
	0.1 mg/m3	Ceiling Limit Value:	as Cr	US CA OEL
	1 mg/m3	Time Weighted Average (TWA):		MX OEL
	1 mg/m3	PEL:		OSHA Z1

Chromium oxide (CrO3)	1 mg/m3	Time Weighted Average (TWA):		OSHA Z1A

9. PHYSICAL AND CHEMICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

Stability : Stable.

Hazardous Polymerization : Will not occur.

Conditions to avoid : To avoid thermal decomposition, do not overheat. Keep away from oxidizing agents and open flame.

Incompatible Materials : Incompatible with strong acids and oxidizing agents. Avoid contact with acetal homopolymers and acetal copolymers during processing.

Hazardous decomposition products : Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating (approximately 30 minutes or more) above 392 °F (200 °C) or short term heating at 482 °F (250 °C) may result in product decomposition and evolution of carbon monoxide and hydrogen chloride.

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 chromate pigment)	Systemic effects	central nervous system, reproductive system.
1333-82-0	Chromium oxide (CrO3)	Systemic effects	Eyes, Skin, Respiratory system, blood and blood forming system, Liver, Kidney.
		Corrosive	Eyes, Skin.
		Highly Toxic	Refer to MSDS for Toxicity Data..
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

Proprietary	Prop00006- Misc. Organic Lead Cpd's	Systemic effects	central nervous system, 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
1333-82-0	Chromium oxide (CrO3)	Oral LD50	80 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
1344-37-2	Chrome yellow (Lead chromate pigment)	no	1	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:
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:
Prop00006- Misc. Organic Lead Cpd's Proprietary 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 : Adverse ecological impact is not known or expected under normal use.

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. 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

US Regulations:

OSHA Status : Classified as hazardous based on components.

TSCA Status : All components of this product are listed on the TSCA inventory or are exempt.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	% in Product	RQ for component	RQ for Mixture/Product
Chromium oxide (CrO3)	1333-82-0	0.58	10lbs	1,721 LB

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

SARA Title III Section 313 Toxic Chemicals:

Chemical Name	CAS-No.	Weight %
CHROMIUM VI COMPOUNDS LEAD COMPOUNDS, INORGANIC	1344-37-2	0.65
CHROMIUM VI COMPOUNDS	1333-82-0	0.58

Chemical Name	CAS-No.	Weight %
LEAD COMPOUNDS, ORGANIC	Proprietary	1.32

Canadian Regulations:

WHMIS Classification : C D1A

WHMIS Ingredient Disclosure List

CAS-No.
1344-37-2
75-01-4
1333-82-0

DSL : Listed.

National Inventories:

Australia AICS : Listed.

China IECS : Not determined.

Europe EINECS : Not determined.

Japan ENCS : Not determined.

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.