### MATERIAL SAFETY DATA SHEET HM YELLOW w/UV

Version Number 1.0 Revision Date 07/11/2007

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#### 1. PRODUCT AND COMPANY IDENTIFICATION

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

Telephone:Emergency telephone:		Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	HM YELLOW w/UV
Product code	:	CC10102232
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

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

Components	CAS-No.	Weight %
1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)-, polymer with 2,4,6-trichloro-1,3,5-triazine, reaction products	70624-18-9	5 - 10
Molybdate orange (Lead chromate pigment)	12656-85-8	0.1 - 1
Titanium dioxide	13463-67-7	1 - 5
Chrome yellow (Lead chromate pigment)	1344-37-2	10 - 30

#### **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.

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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, 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 applicable		
Suitable extinguishing media	:	Carbon dioxide blanket, Water spray, Dry powder, Foam.		
Special Fire Fighting	:	Fullface self-contained breathing apparatus (SCBA) used in positive		
Procedures		pressure mode should be worn to prevent inhalation of airborne contaminants.		
Unusual Fire/Explosion		Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen		
Hazards	•	(NOx), other hazardous materials, and smoke are all possible.		
	6. A	CCIDENTAL 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.		

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Handling	:	Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.	
Storage	:	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.	
8. EXI	POSUI	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:
Chrome yellow (Lead	0.005	Time Weighted Average		OSHA
chromate pigment)	mg/m3	(TWA):		
	0.0025	OSHA Action level:		OSHA
	mg/m3			0.011 1.72
	0.1 mg/m3	Ceiling Limit Value:		OSHA Z2
	0.01 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
	0.01	Time Weighted Average		MX OEL
	mg/m3	(TWA):		
	1 mg/m3	PEL:	as Cr	OSHA Z1
	0.05	Time Weighted Average	as Pb	ACGIH
	mg/m3	(TWA):		
	0.05	Time Weighted Average		OSHA
	mg/m3	(TWA):		00114
	0.03	OSHA Action level:		OSHA
	mg/m3 0.15	Time Weighted Average	Dust and fume. as Pb	MX OEL
	mg/m3	Time Weighted Average (TWA):	Dust and Tunne. as FD	WIA UEL
Molybdate orange	0.005	Time Weighted Average		OSHA
(Lead chromate	mg/m3	(TWA):		OSIIA
pigment)	ing/ins	(1,1,1,1).		
P-8	0.0025	OSHA Action level:		OSHA
	mg/m3			
	0.1 mg/m3	Ceiling Limit Value:		OSHA Z2
	0.01	Time Weighted Average	as Cr	ACGIH
	mg/m3	(TWA):		
	0.01	Time Weighted Average		MX OEL
	mg/m3	(TWA):		
	1 mg/m3	PEL:	as Cr	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):	Inhalable fraction. as Mo	ACGIH
	3 mg/m3	Time Weighted Average	Respirable fraction. as	ACGIH
	5 mg/m5	(TWA):	Mo	ACOM
	15 mg/m3	PEL:	Total dust. as Mo	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):	as Mo	MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):	as Mo	MX OEL
	0.05	Time Weighted Average	as Pb	ACGIH
	mg/m3	(TWA):		0.0777.1
	0.05	Time Weighted Average		OSHA
	mg/m3	(TWA):		00114
	0.03	OSHA Action level:		OSHA
	mg/m3 0.15	Time Weighted Average	Dust and fume. as Pb	MV OF
	0.15 mg/m3	(TWA):	Dust and runne. as PD	MX OEL
	0.05	Time Weighted Average	as Cr	ACGIH
	mg/m3	(TWA):	as CI	ACOIII

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	0.05	Time Weighted Average		MX OEL
	mg/m3	(TWA):		
Titanium dioxide	10 mg/m3	Time Weighted Average		ACGIH
	_	(TWA):		
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average	as Ti	MX OEL
	_	(TWA):		
	20 mg/m3	Short Term Exposure Limit	as Ti	MX OEL
	_	(STEL):		

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Color Odour Melting point/range Boiling Point: Water solubility
- Solid
  pellets
  YELLOW
  Very faint
  Not determined
  Not applicable
  Insoluble
- Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH
- Not applicableNot determinedNot establishedNot applicableNot applicable
- : Not applicable

	10. STABILITY AND REACTIVITY				
Stability	:	Stable.			
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.			
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
70624-18-9	1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetrameth yl-4-piperidinyl)-,polymer with 2,4,6-trichloro-1,3,5-triazi ne, reaction products	Irritant	Eyes, Skin, Respiratory system.



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12656-85-8	Molybdate orange (Lead chromate pigment)	Irritant	Eyes, Skin.
		Systemic effects	central nervous system (CNS), reproductive system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
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
70624-18-9	1,6-Hexanediamine,	Oral LD50	> 2,000 mg/kg	rat
	N,N'-bis(2,2,6,6-tetrameth	Dermal LD50	> 3,000 mg/kg	rat
	yl-4-piperidinyl)-,polymer			
	with			
	2,4,6-trichloro-1,3,5-triazi			
	ne, reaction products			

#### Carcinogenicity

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
12656-85-8	Molybdate orange (Lead	yes	1	no
	chromate pigment)			
13463-67-7	Titanium dioxide	no	2B	no
1344-37-2	Chrome yellow (Lead	yes	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:

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:

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".

#### 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**

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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:			
OSHA Status	: Classified as hazardous based on components.		
TSCA Status	: All components of this product are listed on or exempt from the TSC. Inventory.		
US. EPA CERCLA Hazardous	Substances (40 CFR 302)		
Not applicable			

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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 %
CHROMIUM VI COMPOUNDSLEAD	1344-37-2	10.00 - 30.00
COMPOUNDSLEAD COMPOUNDS, INORGANIC		
CHROMIUM VI COMPOUNDSLEAD	12656-85-8	0.10 - 1.00
COMPOUNDSLEAD COMPOUNDS, INORGANIC		

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Chrome yellow (Lead chromate pigment)	1344-37-2	10.00 - 30.00	235
		10.00 - 30.00	236
Molybdate orange (Lead chromate pigment)	12656-85-8	0.10 - 1.00	235
		0.10 - 1.00	236

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

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

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

:



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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.