

MATERIAL SAFETY DATA SHEET

SAFETY ORANGE UV 2

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Revision Date 03/05/2010 Print Date 1/11/2012

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION

33587 Walker Road, Avon Lake, OH 44012

Telephone : Product Stewardship (770) 271-5902

Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure

or accident).

Product name : SAFETY ORANGE UV 2

Product code : CC10119526 Chemical Name : Mixture CAS-No. : Mixture

Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight percent
Decanedioic acid, methyl 1,2,2,6,6-	82919-37-7	1 - 5
pentamethyl-4-piperidinyl ester		
Bis (1,2,2,6,6-pentamethyl-4-piperidinyl)	41556-26-7	5 - 10
sebacate		
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Molybdate orange (Lead chromate pigment)	12656-85-8	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 : Irritating to eyes and respiratory system.



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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. Seek medical attention after significant

exposure.

Ingestion : Do not induce vomiting without medical advice. Seek medical

attention if necessary.

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. FIRE-FIGHTING MEASURES

Flash point : Greater than $200 \, ^{\circ}\text{F} \, (93 \, ^{\circ}\text{C})$

Flammable Limits

Upper explosion limit : Not applicable Lower explosion limit : Not applicable Autoignition temperature : Not applicable

Suitable extinguishing media : Carbon dioxide blanket, 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

: 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 : 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

appropriate container for disposal. Refer to Section 13 of this MSDS



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for proper disposal methods.

7. HANDLING AND STORAGE

Handling : Heat only in areas with appropriate exhaust ventilation.

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 : Under normal handling conditions a respirator may not be 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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Value	Exposure time	Exposure type	List:
0.5 mg/m3	Recommended exposure	as Cr	NIOSH
	limit (REL):		
0.5 mg/m3	PEL:	as Cr	OSHA Z1
0.005	Time Weighted Average		OSHA
mg/m3	(TWA):		
0.0025	OSHA Action level:		OSHA
mg/m3			
0.05	Time Weighted Average	as Pb	ACGIH
mg/m3	(TWA):		
0.05	Time Weighted Average		OSHA
mg/m3	(TWA):		
0.03	OSHA Action level:		OSHA
mg/m3			
0.05	Time Weighted Average	as Pb	OSHA Z1A
mg/m3	(TWA):		
0.15	Time Weighted Average	Dust and fume. as Pb	MX OEL
mg/m3	(TWA):		
0.8 mg/m3	Time Weighted Average		Z3
	(TWA):		
10 mg/m3	Time Weighted Average	Inhalable particulate.	MX OEL
	(TWA):		
3 mg/m3	Time Weighted Average	Respirable dust.	MX OEL
	0.5 mg/m3 0.5 mg/m3 0.005 mg/m3 0.0025 mg/m3 0.05 mg/m3 0.05 mg/m3 0.05 mg/m3 0.05 mg/m3 0.05 mg/m3 10.05 mg/m3	0.5 mg/m3 Recommended exposure limit (REL): 0.5 mg/m3 PEL: 0.005 mg/m3 Time Weighted Average (TWA): 0.0025 mg/m3 OSHA Action level: mg/m3 0.05 mg/m3 Time Weighted Average (TWA): 0.05 mg/m3 OSHA Action level: mg/m3 0.03 mg/m3 OSHA Action level: mg/m3 0.05 mg/m3 Time Weighted Average (TWA): 0.15 mg/m3 Time Weighted Average (TWA): 0.8 mg/m3 Time Weighted Average (TWA): 10 mg/m3 Time Weighted Average (TWA):	0.5 mg/m3 Recommended exposure limit (REL): 0.5 mg/m3 PEL: as Cr 0.005 Time Weighted Average mg/m3 (TWA): 0.0025 mg/m3 (TWA): 0.05 Time Weighted Average mg/m3 (TWA): 0.01 OSHA Action level: 0.02 mg/m3 (TWA): 0.03 OSHA Action level: 0.05 Time Weighted Average as Pb mg/m3 (TWA): 0.05 Time Weighted Average mg/m3 (TWA): 0.15 Time Weighted Average Dust and fume. as Pb mg/m3 (TWA): 0.8 mg/m3 Time Weighted Average (TWA): 10 mg/m3 Time Weighted Average (TWA): 10 mg/m3 Time Weighted Average Respirable dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

Not established Form : liquid Evaporation rate Appearance : viscous, liquid Specific Gravity Not determined Colour **ORANGE** Bulk density Not applicable Odour very faint Vapour pressure Not determined Melting point/range not applicable Vapour density Not determined Boiling Point: not applicable Not applicable pН

Water solubility : immiscible

10. STABILITY AND REACTIVITY

Stability : Stable

Hazardous Polymerization : Will not occur.

Conditions to avoid : Keep away from oxidizing agents and open flame.

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.



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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
82919-37-7	Decanedioic acid, methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester	Irritant	Skin.
41556-26-7	Bis (1,2,2,6,6- pentamethyl-4-piperidinyl) sebacate	sensitizer	Skin.
112945-52-5	Silica, amorphous, fumed, crystal-free	Irritant	Eyes, Respiratory system.
12656-85-8	Molybdate orange (Lead chromate pigment)	Irritant	Eyes, Skin.
		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
41556-26-7	Bis (1,2,2,6,6-	Oral LD50	> 2,000 mg/kg	rat
	pentamethyl-4-piperidinyl)			
	sebacate			
112945-52-5	Silica, amorphous, fumed,	Oral LD50	3,160 mg/kg	rat
	crystal-free			

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)			

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.



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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 : Adverse ecological impact is not known or expected under normal

use.

Bioaccumulation Potential : Does not bioaccumulate.

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 : Not regulated for transportation.

ICAO/IATA : Not regulated for transportation.

IMO/IMDG (maritime) : 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 or exempt from the

TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable



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California Proposition

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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 III COMPOUNDSCHROMIUM III	12656-85-8	10.00 - 30.00	
COMPOUNDSLEAD COMPOUNDS			

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

1 (44101141 1 011444111 11010430 111 (011401) (1 (1 111	,		
Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
Molybdate orange (Lead chromate pigment)	12656-85-8	10.00 - 30.00	
Phenol, nonyl-, phosphite (3:1)	26523-78-4	1.00 - 5.00	
		1.00 - 5.00	
		1.00 - 5.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.	
12656-85-8	

DSL : All of the components of this product are listed on the Canadian

Inventories or are exempt. However, at least one component of this product is on the Canadian Non-Domestic Substances List (NDSL).

Quantity use in Canada is restricted by regulations.

National Inventories:

Australia AICS : Not determined

China IECS : Not determined



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Europe EINECS : Not determined

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 used in combination with any other materials or in any process, unless specified in the text.