

MATERIAL SAFETY DATA SHEET

NEW ORANGE

Version Number 1.1 Page 1 of 9
Revision Date 03/13/2014 Print Date 3/20/2014

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION

33587 Walker Road, Avon Lake, OH 44012

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 : NEW ORANGE
Product code : CC10130062
Chemical Name : Mixture
CAS-No. : Mixture

Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No. | Weight percent |
|--|------------|----------------|
| Titanium dioxide | 13463-67-7 | 1 - 5 |
| Barium sulfate | 7727-43-7 | 5 - 10 |
| C.I. Pigment Red 108 | 58339-34-7 | 10 - 30 |
| Molybdate orange (Lead chromate pigment) | 12656-85-8 | 30 - 60 |

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 enduser (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.



MATERIAL SAFETY DATA SHEET

NEW ORANGE

Version Number 1.1 Page 2 of 9
Revision Date 03/13/2014 Print Date 3/20/2014

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. FIREFIGHTING MEASURES

Flash point : not applicable

Flammable Limits

Upper explosion limit : not applicable Lower explosion limit : not applicable 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.

COII

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 : 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.

7. HANDLING AND STORAGE



MATERIAL SAFETY DATA SHEET

NEW ORANGE

Version Number 1.1 Page 3 of 9
Revision Date 03/13/2014 Print Date 3/20/2014

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. 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)



MATERIAL SAFETY DATA SHEET

NEW ORANGE

Version Number 1.1 Revision Date 03/13/2014 Page 4 of 9 Print Date 3/20/2014

| Components | Value | Exposure time | Exposure type | List: |
|--|-----------------|-----------------------------------|-------------------------------|----------|
| Barium sulfate | 10 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| | 5 mg/m3 | Recommended exposure limit (REL): | Respirable. | NIOSH |
| | 10 mg/m3 | Recommended exposure limit (REL): | Total | NIOSH |
| | 5 mg/m3 | PEL: | Respirable fraction. | OSHA Z1 |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | 5 mg/m3 | Time Weighted Average (TWA): | Respirable fraction. | OSHA Z1A |
| | 10 mg/m3 | Time Weighted Average (TWA): | Total dust. | OSHA Z1A |
| C.I. Pigment Red 108 | 0.01 mg/m3 | Time Weighted Average (TWA): | as Cd | ACGIH |
| | 0.002 mg/m3 | Time Weighted Average (TWA): | Respirable fraction. as Cd | ACGIH |
| | 0.005 mg/m3 | Time Weighted Average (TWA): | | OSHA |
| | 0.0025 mg/m3 | OSHA Action level: | | OSHA |
| | 0.002 mg/m3 | Time Weighted Average (TWA): | Respirable dust. as Cd | MX OEL |
| | 0.01 mg/m3 | Time Weighted Average (TWA): | Total dust. as Cd | MX OEL |
| | 0.2 mg/m3 | Time Weighted Average (TWA): | as Se | ACGIH |
| | 0.2 mg/m3 | PEL: | as Se | OSHA Z1 |
| | 0.2 mg/m3 | Time Weighted Average (TWA): | as Se | OSHA Z1A |
| | 0.2 mg/m3 | Time Weighted Average (TWA): | as Se | MX OEL |
| | 0.2 mg/m3 | Recommended exposure limit (REL): | as Se | NIOSH |
| Molybdate orange (Lead chromate pigment) | 0.5 mg/m3 | Recommended exposure limit (REL): | as Cr | NIOSH |
| | 0.5 mg/m3 | PEL: | as Cr | OSHA Z1 |
| | 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 |



MATERIAL SAFETY DATA SHEET

NEW ORANGE

Version Number 1.1 Page 5 of 9
Revision Date 03/13/2014 Print Date 3/20/2014

| | 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): | | |
| Titanium dioxide | 10 mg/m3 | Time Weighted Average | | ACGIH |
| | | (TWA): | | |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | 10 mg/m3 | Time Weighted Average | Total dust. | OSHA Z1A |
| | | (TWA): | | |
| | 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

: Not applicable Form : solid Evapouration rate Appearance : pellets Specific Gravity : Not determined Colour : ORANGE Bulk density : Not established Odour : very faint Vapour pressure : not applicable Melting point/range : Not determined Vapour density not applicable Boiling Point: : not applicable pН not applicable

Water solubility : insoluble

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.

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 |
|------------|------------------|------------------|---------------------|
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |
| 7727-43-7 | Barium sulfate | Irritant | Respiratory system. |



MATERIAL SAFETY DATA SHEET

NEW ORANGE

Version Number 1.1 Revision Date 03/13/2014 Page 6 of 9 Print Date 3/20/2014

| | | Systemic effects | Eyes, Respiratory system. |
|------------|--|------------------|--|
| 58339-34-7 | C.I. Pigment Red 108 | Irritant | Eyes, Skin. |
| | | Systemic effects | Liver, central nervous system (CNS), Kidney. |
| 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 |
|------------|------------------------|-----------|-------------|---------|
| 12656-85-8 | Molybdate orange (Lead | Oral LD50 | 5,000 mg/kg | rat |
| | chromate pigment) | | | |

Carcinogenicity

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

| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|------------|------------------------|------|------|-----|
| 13463-67-7 | Titanium dioxide | no | 2B | no |
| 58339-34-7 | C.I. Pigment Red 108 | yes | 1 | no |
| 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.

Additional Health Hazard Information:

C.I. Pigment Red 108 58339-34-7 Can produce rapid and sometimes fatal pulmonary edema. Chronic absorption leads to liver and kidney damage.

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

polymer matrix.



MATERIAL SAFETY DATA SHEET

NEW ORANGE

Version Number 1.1 Page 7 of 9
Revision Date 03/13/2014 Print Date 3/20/2014

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

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 : 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)

not applicable

California Proposition : 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



MATERIAL SAFETY DATA SHEET

NEW ORANGE

 Version Number 1.1
 Page 8 of 9

 Revision Date 03/13/2014
 Print Date 3/20/2014

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 |
|-------------------------------------|------------|----------------|
| CADMIUM COMPOUNDSSELENIUM COMPOUNDS | 58339-34-7 | 10.00 - 30.00 |
| CHROMIUM III COMPOUNDSCHROMIUM III | 12656-85-8 | 30.00 - 60.00 |
| COMPOUNDSLEAD COMPOUNDS | | |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight | NPRI ID# |
|--|------------|---------------|----------|
| | | percent | |
| C.I. Pigment Red 108 | 58339-34-7 | 10.00 - 30.00 | |
| | | 10.00 - 30.00 | |
| Molybdate orange (Lead chromate pigment) | 12656-85-8 | 30.00 - 60.00 | |

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No. | |
|------------|--|
| 58339-34-7 | |
| 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

Japan ENCS : Not determined

Korea KECI : Listed

Philippines PICCS : Not determined

16. OTHER INFORMATION



MATERIAL SAFETY DATA SHEET

NEW ORANGE

 Version Number 1.1
 Page 9 of 9

 Revision Date 03/13/2014
 Print Date 3/20/2014

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.