



POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

1100 ORANGE

Version Number 1.2
Revision Date 03/13/2014

Page 1 of 8
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 : 1100 ORANGE
Product code : VC10005020
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 | 0.1 - 1 |
| Lead Stearate | 7428-48-0 | 0.1 - 1 |
| Antimony trioxide | 1309-64-4 | 1 - 5 |
| Lead oxide sulfate (Pb4O3(SO4)) | 12202-17-4 | 1 - 5 |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating or processing. 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. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.

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.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

1100 ORANGE

Version Number 1.2
Revision Date 03/13/2014

Page 2 of 8
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.
- 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** : 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.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

1100 ORANGE

Version Number 1.2
Revision Date 03/13/2014

Page 3 of 8
Print Date 3/20/2014

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. This product may contain residual vinyl chloride monomer (VCM) (CAS number 75-01-4) below 8.5 ppm (0.00085%). It is unlikely, under normal working conditions with adequate ventilation, that the exposure limits will be exceeded for residual VCM. However, the user should take the necessary precautions (e.g. mechanical ventilation, local exhaust ventilation, air-monitoring, respiratory protection, etc.) to ensure airborne levels of any vapors including VCM or dusts that may be released during heating or processing are below regulated levels.
- Engineering measures : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

Exposure limit(s)

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

1100 ORANGE

Version Number 1.2
Revision Date 03/13/2014

Page 4 of 8
Print Date 3/20/2014

| Components | Value | Exposure time | Exposure type | List: |
|---------------------------------|------------|-----------------------------------|----------------------|----------|
| Antimony trioxide | 0.5 mg/m3 | Time Weighted Average (TWA): | as Sb | MX OEL |
| | 0.5 mg/m3 | Time Weighted Average (TWA): | as Sb | ACGIH |
| | 0.5 mg/m3 | Recommended exposure limit (REL): | as Sb | NIOSH |
| | 0.5 mg/m3 | PEL: | as Sb | OSHA Z1 |
| | 0.5 mg/m3 | Time Weighted Average (TWA): | as Sb | OSHA Z1A |
| Lead oxide sulfate (Pb4O3(SO4)) | 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 |
| 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 | : solid | Evaporation rate | : Not applicable |
| Appearance | : pellets, powder | 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 | pH | : 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. |

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

1100 ORANGE

Version Number 1.2
Revision Date 03/13/2014

Page 5 of 8
Print Date 3/20/2014

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 (NO_x), 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 |
|------------|--|------------------|--|
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |
| 7428-48-0 | Lead Stearate | Systemic effects | central nervous system (CNS), reproductive system. |
| 1309-64-4 | Antimony trioxide | Systemic effects | Eyes, Respiratory system. |
| | | sensitizer | Skin. |
| 12202-17-4 | Lead oxide sulfate (Pb ₄ O ₃ (SO ₄)) | Systemic effects | reproductive system, central nervous system (CNS). |

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 |
|-----------|-------------------|-----------|----------------|---------|
| 1309-64-4 | Antimony trioxide | Oral LD50 | > 34,600 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 |
|------------|--|------|------|-----|
| 13463-67-7 | Titanium dioxide | no | 2B | no |
| 1309-64-4 | Antimony trioxide | no | 2B | no |
| 12202-17-4 | Lead oxide sulfate (Pb ₄ O ₃ (SO ₄)) | yes | 2A | 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.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

1100 ORANGE

Version Number 1.2
Revision Date 03/13/2014

Page 6 of 8
Print Date 3/20/2014

2 - The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:

Lead Stearate 7428-48-0 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:

Antimony trioxide 1309-64-4 Can cause eye irritation. Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: antimony measles (a red, pimply rash).

Additional Health Hazard Information:

Lead oxide sulfate (Pb4O3(SO4)) 12202-17-4 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 : not applicable

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 : Not regulated for transportation.
IMO/IMDG (maritime) : Not regulated for transportation.

15. REGULATORY INFORMATION



POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

1100 ORANGE

Version Number 1.2
Revision Date 03/13/2014

Page 7 of 8
Print Date 3/20/2014

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 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 |
|---|------------|----------------|
| ANTIMONY COMPOUNDS | 1309-64-4 | 1.00 - 5.00 |
| LEAD COMPOUNDS LEAD COMPOUNDS LEAD COMPOUNDS, INORGANIC | 12202-17-4 | 1.00 - 5.00 |
| LEAD COMPOUNDS | 7428-48-0 | 0.10 - 1.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight percent | NPRI ID# |
|---------------------------------|------------|----------------|----------|
| Antimony trioxide | 1309-64-4 | 1.00 - 5.00 | |
| Lead oxide sulfate (Pb4O3(SO4)) | 12202-17-4 | 1.00 - 5.00 | |
| | | 1.00 - 5.00 | |
| | | 1.00 - 5.00 | |

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

1100 ORANGE

Version Number 1.2
Revision Date 03/13/2014

Page 8 of 8
Print Date 3/20/2014

| |
|------------|
| CAS-No. |
| 1309-64-4 |
| 12202-17-4 |

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 : 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.