

MATERIAL SAFETY DATA SHEET

# **MUSTARD YELLOW V.2**

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## 1. PRODUCT AND COMPANY IDENTIFICATION

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

| NON-EMERGENCY<br>TELEPHONE    | : | Product Stewardship (770) 271-5902   |
|-------------------------------|---|--|
| Emergency telephone<br>number | : | CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
| Product name                  | : | MUSTARD YELLOW V.2   |
| Product code                  | : | CC10021605   |
| Chemical Name                 | : | Mixture  |
| CAS-No.                       | : | Mixture  |
| Product Use                   | : | Industrial Applications  |

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

| Components        | CAS-No.    | Weight % |
|-------------------|------------|----------|
| Carbon black      | 1333-86-4  | 0.1 - 1  |
| Silica, amorphous | 7631-86-9  | 1 - 5    |
| Titanium dioxide  | 13463-67-7 | 10 - 30  |

### 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 and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

#### POTENTIAL HEALTH EFFECTS

| <b>Routes of Exposure:</b>                    | : Inhalation, Ingestion, Skin contact  |
|---|--|
| Acute exposure                                |  |
| Inhalation<br>Ingestion<br>Eyes<br>Skin       | <ul> <li>Resin particles, like other inert materials, can be mechanically irritating.</li> <li>May be harmful if swallowed.</li> <li>Particulates, like other inert materials can be mechanically irritating.</li> <li>Experience shows no unusual dermatitis hazard from routine handling.</li> </ul> |
| Chronic exposure                              | : Refer to Section 11 for Toxicological Information.   |
| Medical Conditions<br>Aggravated by Exposure: | : None known.  |



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|  |       | 4. FIRST AID MEASURES  |
|--|-------|--|
| Inhalation   | :     | Move to fresh air in case of accidental inhalation of fumes from<br>overheating or combustion. When symptoms persist, or in all cases of<br>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<br>Upper explosion limit<br>Lower explosion limit<br>Autoignition temperature<br>Suitable extinguishing media | : : : | Not applicable<br>Not applicable<br>Not relevant<br>Carbon dioxide blanket, Water spray, dry powder, foam.   |
| Special Fire Fighting<br>Procedures<br>Unusual Fire/Explosion<br>Hazards   | :     | Fullface self-contained breathing apparatus (SCBA) used in positive<br>pressure mode should be worn to prevent inhalation of airborne<br>contaminants.<br>none                   |
|  | 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 scoop 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.  |
| Storage  | :     | Keep containers dry and tightly closed to avoid moisture absorption  |



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|  |  | 1  |  |   |  |
|--|--|--|--|---|--|
|  | a  | nd contamination. Keep in a d  | Iry, 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   |  |  |  |   |  |
| Hand protection  | : P  | rotective gloves.  |  |   |  |
| Skin and body protection   | ı : L  | ong sleeved clothing.  |  |   |  |
| Additional Protective<br>Measures  |  |  |  |   |  |
| General Hygiene:Wash hands and face before breaks and immediately after handling the<br>product. Handle in accordance with good industrial hygiene and safety<br>practice for diagnostics. |  |  |  |   |  |
| 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:   |  |
| Carbon black   | 3.5 mg/m3  | Time Weighted Average<br>(TWA):  | Total dust. as carbon<br>black   | ACGIH   |  |
| Carbon black   | 3.5 mg/m3  | PEL:   | Total dust. as carbon<br>black   | OSHA Z1   |  |
| Silica, amorphous  | 20 mppcf   | PEL:   | Total dust.  | OCITY   |  |
|  |  |  |  | OSHA  |  |
| Silica, amorphous  | 20 mppcf   | PEL:   | Total dust.  | Z3  |  |
| Silica, amorphous<br>Titanium dioxide  | 20 mppcf<br>10 mg/m3   | PEL:<br>Time Weighted Average  | Total dust.<br>Total dust.   |   |  |
|  |  | PEL:   |  | Z3  |  |
| Titanium dioxide   | 10 mg/m3<br>15 mg/m3   | PEL:<br>Time Weighted Average<br>(TWA):  | Total dust.<br>Total dust.   | Z3<br>ACGIH   |  |
| Titanium dioxide<br>Titanium dioxide   | 10 mg/m3<br>15 mg/m3<br>9. PHYSIC  | PEL:<br>Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO  | Total dust.<br>Total dust.<br>DPERTIES   | Z3<br>ACGIH<br>OSHA Z1  |  |
| Titanium dioxide<br>Titanium dioxide<br>Form   | 10 mg/m3<br>15 mg/m3<br>9. PHYSIC<br>: Solic   | PEL:<br>Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO  | Total dust.<br>Total dust.<br>DPERTIES<br>ration rate : Not  | Z3<br>ACGIH<br>OSHA Z1<br>applicable.   |  |
| Titanium dioxide<br>Titanium dioxide<br>Form<br>Appearance   | 10 mg/m3<br>15 mg/m3<br>9. PHYSIC<br>: Solic<br>: flake  | PEL:<br>Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Evapo<br>Specif   | Total dust.<br>Total dust.<br>DPERTIES<br>ration rate : Not  | Z3<br>ACGIH<br>OSHA Z1<br>applicable.<br>determined   |  |
| Titanium dioxide<br>Titanium dioxide<br>Form<br>Appearance<br>Color  | 10 mg/m3<br>15 mg/m3<br>9. PHYSIC<br>: Solic<br>: flake<br>: YEL   | PEL:<br>Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>SS Specific<br>LOW Bulk d   | Total dust.         Total dust. <b>DPERTIES</b> ration rate       : Not         ic Gravity       : Not         lensity       : Not   | Z3<br>ACGIH<br>OSHA Z1<br>applicable.<br>determined<br>determined                             |  |
| Titanium dioxide<br>Titanium dioxide<br>Form<br>Appearance<br>Color<br>Odor  | 10 mg/m3<br>15 mg/m3<br>9. PHYSIC<br>: Solic<br>: flake<br>: YEL<br>: Very                                 | PEL:<br>Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Second Evapo<br>Specific Specific Speci | Total dust.         Total dust. <b>DPERTIES</b> ration rate       : Not         ic Gravity       : Not         lensity       : Not         pressure       : Not  | Z3<br>ACGIH<br>OSHA Z1<br>applicable.<br>determined   |  |
| Titanium dioxide<br>Titanium dioxide<br>Form<br>Appearance<br>Color<br>Odor<br>Melting point/range   | 10 mg/m3<br>15 mg/m3<br>9. PHYSIC<br>: Solic<br>: flake<br>: YEL<br>: Very<br>: Grea                       | PEL:<br>Time Weighted Average<br>(TWA):<br>PEL:<br>CAL AND CHEMICAL PRO<br>Second Evapo<br>Specific Specific Speci | Total dust.         Total dust.         DPERTIES         ration rate       : Not all all all all all all all all all al  | Z3<br>ACGIH<br>OSHA Z1<br>applicable.<br>determined<br>determined<br>determined<br>determined |  |
| Titanium dioxide<br>Titanium dioxide<br>Form<br>Appearance<br>Color<br>Odor  | 10 mg/m3<br>15 mg/m3<br>9. PHYSIC<br>: Solic<br>: flake<br>: YEL<br>: Very<br>: Grea                       | PEL:         Time Weighted Average (TWA):         PEL:         CAL AND CHEMICAL PRO         d       Evapo         es       Specif         LOW       Bulk d         of faint       Vapor         ter than 130 °C       Vapor         applicable       pH  | Total dust.         Total dust.         DPERTIES         ration rate       : Not all all all all all all all all all al  | Z3<br>ACGIH<br>OSHA Z1<br>applicable.<br>determined<br>determined<br>determined               |  |
| Titanium dioxide<br>Titanium dioxide<br>Form<br>Appearance<br>Color<br>Odor<br>Melting point/range<br>Boiling Point:   | 10 mg/m3<br>15 mg/m3<br>9. PHYSIC<br>: Solic<br>: flake<br>: YEL<br>: Very<br>: Grea<br>: Not :<br>: Insol | PEL:         Time Weighted Average (TWA):         PEL:         CAL AND CHEMICAL PRO         d       Evapo         es       Specif         LOW       Bulk d         of faint       Vapor         ter than 130 °C       Vapor         applicable       pH  | Total dust.         Total dust. <b>DPERTIES</b> ration rate       Not         ic Gravity       Not         lensity       Not         pressure       Not         density       Not         It Not       Not | Z3<br>ACGIH<br>OSHA Z1<br>applicable.<br>determined<br>determined<br>determined<br>determined |  |



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|--|---|--|
| Hazardous Polymerization                       | : | Will not occur.  |
| Conditions to avoid                            | : | 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), dense black smoke. |

#### **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              |
|------------|-------------------|------------------|---------------------------|
| 1333-86-4  | Carbon black      | Systemic effects | Eyes, Respiratory system. |
| 7631-86-9  | Silica, amorphous | Irritant         | Eyes, Respiratory system. |
| 13463-67-7 | Titanium dioxide  | Systemic effects | Respiratory 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 |
|-----------|---------------|-------------|---------------|---------|
| 1333-86-4 | Carbon black  | Oral LD50   | >15,400 mg/kg | rat     |
|           |               | Dermal LD50 | > 3 gm/kg     | rabbit  |

Carcinogenicity:

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

| CAS-No.   | Chemical Name | OSHA | IARC | NTP |
|-----------|---------------|------|------|-----|
| 1333-86-4 | Carbon black  | no   | 2B   | 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:**



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Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

|                                     | 12. ECOLOGICAL INFORMATION   |
|-------------------------------------|--|
| Persistence and degradability       | : Not readily biodegradable.   |
| Environmental Toxicity              | : Chemicals are not readily available as they are bound within the matrix of the polymer.  |
| Bioaccumulation Potential           | : Not inherently biodegradable.  |
| Additional advice                   | : Chemicals are not readily available as they are bound within the matrix of the polymer.  |
|                                     | 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 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 / CA TDG<br>Classification | : 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.   |
|                                     |  |

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| TSCA Status                  | :   | All components of this product are listed on the TSCA inventory or are exempt. |
|------------------------------|-----|--|
| US. EPA CERCLA Hazardous S   | Sub | stances (40 CFR 302)   |
| Not applicable               |     |  |
| California Proposition<br>65 | :   | This product does not contain a substance listed by California Prop 65.        |
| Canadian Regulations:        |     |  |
| WHMIS Classification         | :   | D2A  |
| WHMIS Ingredient Discl       | osu | re List  |
| CAS-No.<br>7631-86-9         |     |  |
| DSL                          | :   | Listed.  |
| National Inventories:        |     |  |
| Australia AICS               | :   | Not determined.  |
| 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.



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