## Section 1. Identification

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>POWERCRON BLACK PASTE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product code</strong></td>
<td>CP639R</td>
</tr>
<tr>
<td><strong>Other means of identification</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Product type</strong></td>
<td>Liquid.</td>
</tr>
</tbody>
</table>

### Relevant identified uses of the substance or mixture and uses advised against

| **Product use** | Industrial applications. |
| **Use of the substance/mixture** | Coating. Paints. Painting-related materials. |
| **Uses advised against** | Not applicable. |

### Manufacturer

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

**Emergency telephone number**

+ (412) 434-4515 (U.S.)
+ (514) 645-1320 (Canada)
+ 01-800-00-21-400 or + 52 55 5559 1588 (Mexico)

**Technical Phone Number**

1-888-774-2001 (US and Canada)

## Section 2. Hazards identification

### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

- **ACUTE TOXICITY (oral)** - Category 4
- **SKIN IRRITATION** - Category 2
- **SERIOUS EYE DAMAGE** - Category 1
- **SKIN SENSITIZATION** - Category 1
- **GERM CELL MUTAGENICITY** - Category 2
- **CARCINOGENICITY** - Category 2
- **TOXIC TO REPRODUCTION (Fertility)** - Category 1B
- **TOXIC TO REPRODUCTION (Unborn child)** - Category 1B
- **SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (thymus)** - Category 1
- **SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (thymus)** - Category 1

### GHS label elements

- Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 17.9% (Oral), 17.9% (Dermal), 39.5% (Inhalation)
Section 2. Hazards identification

Hazard pictograms:

- Emergency stop
- Danger

Signal word: Danger

Hazard statements:
- Harmful if swallowed.
- Causes serious eye damage.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May damage fertility or the unborn child.
- Suspected of causing genetic defects.
- Suspected of causing cancer.
- Causes damage to organs. (thymus)
- Causes damage to organs through prolonged or repeated exposure. (thymus)

Precautionary statements

Prevention:
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response:
- Get medical attention if you feel unwell. IF exposed: Call a POISON CENTER or physician. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage:
- Store locked up.

Disposal:
- Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements:
- Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Emits toxic fumes when heated.

Hazards not otherwise classified:
- None known.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture

Product name: POWERCRON BLACK PASTE

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>carbon black, respirable powder</td>
<td>≥10 - ≤20</td>
<td>1333-86-4</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>≥10 - ≤13</td>
<td>111-76-2</td>
</tr>
<tr>
<td>dibutyltin oxide</td>
<td>≥1.0 - ≤5.0</td>
<td>818-08-6</td>
</tr>
<tr>
<td>4-methylpentan-2-one</td>
<td>&lt;1.0</td>
<td>108-10-1</td>
</tr>
</tbody>
</table>
Section 3. Composition/information on ingredients

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persist after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

**Description of necessary first aid measures**

- **Eye contact**: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

- **Inhalation**: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

- **Skin contact**: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

- **Ingestion**: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

- **Eye contact**: Causes serious eye damage.

- **Inhalation**: No known significant effects or critical hazards.

- **Skin contact**: Causes skin irritation. May cause an allergic skin reaction.

- **Ingestion**: Harmful if swallowed.

**Over-exposure signs/symptoms**

- **Eye contact**: Adverse symptoms may include the following: pain, watering, redness.

- **Inhalation**: Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations.

- **Skin contact**: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations.
Section 4. First aid measures

**Ingestion**

Adverse symptoms may include the following:
- stomach pains
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**

No specific treatment.

**Protection of first-aiders**

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**

Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**

None known.

**Specific hazards arising from the chemical**

In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products**

Decomposition products may include the following materials:
- carbon oxides
- nitrogen oxides
- halogenated compounds
- metal oxide/oxides

**Special protective actions for fire-fighters**

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions: If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
Section 7. Handling and storage

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black, respirable powder</td>
<td>ACGIH TLV (United States, 3/2017). TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction. OSHA PEL (United States, 6/2016). TWA: 3.5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>ACGIH TLV (United States, 3/2017). TWA: 20 ppm 8 hours. OSHA PEL (United States, 6/2016). Absorbed through skin. TWA: 240 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</td>
</tr>
<tr>
<td>Dibutyltin oxide</td>
<td>ACGIH TLV (United States, 3/2017). Absorbed through skin. STEL: 0.2 mg/m³, (as Sn) 15 minutes. TWA: 0.1 mg/m³, (as Sn) 8 hours. OSHA PEL (United States, 6/2016). TWA: 0.1 mg/m³, (as Sn) 8 hours. OSHA PEL (United States). TWA: 0.1 mg/m³, (as Sn)</td>
</tr>
<tr>
<td>4-Methylpentan-2-one</td>
<td>ACGIH TLV (United States, 3/2017). STEL: 75 ppm 15 minutes. TWA: 20 ppm 8 hours. OSHA PEL (United States, 6/2016). TWA: 410 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</td>
</tr>
</tbody>
</table>

Key to abbreviations:

- A = Acceptable Maximum Peak
- ACGIH = American Conference of Governmental Industrial Hygienists.
- C = Ceiling Limit
- F = Fume
- IPEL = Internal Permissible Exposure Limit
- OSHA = Occupational Safety and Health Administration.
- S = Potential skin absorption
- SR = Respiratory sensitization
- SS = Skin sensitization
- STEL = Short term Exposure limit values
- TD = Total dust
- TLV = Threshold Limit Value
Section 8. Exposure controls/personal protection

| **Recommended monitoring procedures** | : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |
| **Appropriate engineering controls** | : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. |
| **Environmental exposure controls** | : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Chemical splash goggles and face shield.

**Skin protection**

| **Hand protection** | : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. |

| **Gloves** | : butyl rubber |

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Section 9. Physical and chemical properties

**Appearance**
- **Physical state**: Liquid.
- **Color**: Black.
- **Odor**: Not available.
- **Odor threshold**: Not available.
- **pH**: Not available.
- **Melting point**: Not available.
- **Boiling point**: >37.78°C (>100°F)
- **Flash point**: Closed cup: >93.33°C (>200°F) [Product does not sustain combustion.]
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Flammability (solid, gas)**: Not available.
- **Lower and upper explosive (flammable) limits**: Not available.
- **Evaporation rate**: Not available.
- **Vapor pressure**: Not available.
- **Vapor density**: Not available.
- **Relative density**: 1.12
- **Density (lbs / gal)**: 9.35
- **Solubility**: Partially soluble in the following materials: cold water.
- **Partition coefficient: n-octanol/water**: Not available.
- **Viscosity**: Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
- **Volatility**: 69% (v/v), 60.302% (w/w)
- **% Solid. (w/w)**: 39.698

Section 10. Stability and reactivity

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

**Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

**Incompatible materials**: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

**Hazardous decomposition products**: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.
Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black, respirable powder</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;3 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;15400 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>1060 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>470 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>dibutyltin oxide</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;2 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>dibutyltin oxide</td>
<td>LD50 Oral</td>
<td>Rat - Male, Female</td>
<td>172 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>4-methylpentan-2-one</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>12.3 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td>4-methylpentan-2-one</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2.08 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary: There are no data available on the mixture itself.

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>4 hours</td>
<td>28 days</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Eyes - Irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>21 days</td>
</tr>
</tbody>
</table>

Conclusion/Summary

Skin: There are no data available on the mixture itself.
Eyes: There are no data available on the mixture itself.
Respiratory: There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin: There are no data available on the mixture itself.
Respiratory: There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black, respirable powder</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>4-methylpentan-2-one</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
</tbody>
</table>

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
OSHA: + 
Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary: There are no data available on the mixture itself.
Section 11. Toxicological information

**Teratogenicity**

**Conclusion/Summary**: There are no data available on the mixture itself.

**Specific target organ toxicity (single exposure)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibutyltin oxide</td>
<td>Category 1</td>
</tr>
<tr>
<td>4-methylpentan-2-one</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

**Specific target organ toxicity (repeated exposure)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibutyltin oxide</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

**Target organs**: Contains material which causes damage to the following organs: brain. Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, bladder, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, central nervous system (CNS), eye, lens or cornea.

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure**

**Potential acute health effects**

- **Eye contact**: Causes serious eye damage.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: Causes skin irritation. May cause an allergic skin reaction.
- **Ingestion**: Harmful if swallowed.

**Over-exposure signs/symptoms**

- **Eye contact**: Adverse symptoms may include the following:
  - pain
  - watering
  - redness

- **Inhalation**: Adverse symptoms may include the following:
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

- **Skin contact**: Adverse symptoms may include the following:
  - pain or irritation
  - redness
  - blistering may occur
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

- **Ingestion**: Adverse symptoms may include the following:
  - stomach pains
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

**Delayed and immediate effects and also chronic effects from short and long term exposure**
Section 11. Toxicological information

Conclusion/Summary: There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure
Potential immediate effects: There are no data available on the mixture itself.
Potential delayed effects: There are no data available on the mixture itself.

Long term exposure
Potential immediate effects: There are no data available on the mixture itself.
Potential delayed effects: There are no data available on the mixture itself.
Potential chronic health effects
General: Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity: Suspected of causing genetic defects.
Teratogenicity: May damage the unborn child.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: May damage fertility.

Numerical measures of toxicity
Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1570.1 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>7886.5 mg/kg</td>
</tr>
<tr>
<td>Inhalation (gases)</td>
<td>24642 ppm</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>60.24 mg/l</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>8.214 mg/l</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Acute LC50 1474 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC &gt;100 mg/l</td>
<td>Fish</td>
<td>21 days</td>
</tr>
<tr>
<td>dibutyltin oxide</td>
<td>Acute EC50 &gt;1.6 mg/l</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>0.81</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>4-methylpentan-2-one</td>
<td>1.31</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

- Soil/water partition coefficient (K<sub>oc</sub>): Not available.

Section 13. Disposal considerations

**Disposal methods**: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures
14. Transport information

<table>
<thead>
<tr>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>Not regulated.</td>
<td>UN3082</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dibutyltin oxide)</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>Yes. (dibutyltin oxide)</td>
</tr>
<tr>
<td>Marine pollutant substances</td>
<td>Not applicable.</td>
<td></td>
</tr>
</tbody>
</table>

Additional information

**DOT**: None identified.

**IMDG**: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**IATA**: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

**Special precautions for user**: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

**United States**

**United States inventory (TSCA 8b)**: All components are listed or exempted.

**SARA 302/304**

**SARA 304 RQ**: Not applicable.

**Composition/information on ingredients**

No products were found.

**SARA 311/312**

**Classification**

ACUTE TOXICITY (oral) - Category 4
SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
GERM CELL MUTAGENICITY - Category 2
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Fertility) - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (thymus) - Category 1
### Section 15. Regulatory information

**SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (thymus) - Category 1**

**Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>carbon black, respirable powder</td>
<td>≥10 - ≤20</td>
<td>COMBUSTIBLE DUSTS</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>≥10 - ≤13</td>
<td>CARCINOGENICITY - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FLAMMABLE LIQUIDS - Category 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACUTE TOXICITY (oral) - Category 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACUTE TOXICITY (dermal) - Category 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACUTE TOXICITY (inhalation) - Category 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SKIN IRRITATION - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>dibutyltin oxide</td>
<td>≥1.0 - ≤5.0</td>
<td>COMBUSTIBLE DUSTS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACUTE TOXICITY (oral) - Category 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SKIN IRRITATION - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SERIOUS EYE DAMAGE - Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SKIN SENSITIZATION - Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GERM CELL MUTAGENICITY - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOXIC TO REPRODUCTION (Fertility) - Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOXIC TO REPRODUCTION (Unborn child) - Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (thymus) - Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (thymus) (oral) - Category 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td>4-methylpentan-2-one</td>
<td>&lt;1.0</td>
<td>FLAMMABLE LIQUIDS - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACUTE TOXICITY (inhalation) - Category 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CARCINOGENICITY - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)</td>
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<tr>
<td></td>
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<td>HNOC - Defatting irritant</td>
</tr>
</tbody>
</table>

**SARA 313**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Concentration</th>
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</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>111-76-2</td>
<td>7 - 13</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

**California Prop. 65**

⚠️ **WARNING**: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.
Section 16. Other information

Hazardous Material Information System (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ( *)</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Date of previous issue: 5/31/2018

Organization that prepared the MSDS: EHS

Key to abbreviations:

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations

* Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.