SAFETY DATA SHEET

Date of issue/Date of revision: 28 June 2018
Version: 10

Section 1. Identification

Product name: PS 872 B 1/2 Part A
Product code: PS 872 B 1/2 Part A
Other means of identification: Not available.
Product type: Liquid.

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

Product use: Industrial applications.
Use of the substance/mixture: Sealants
Uses advised against: Not applicable.

Manufacturer: PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar, CA 91342
Phone: 818 362 6711
(412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

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
- ACUTE TOXICITY (dermal) - Category 4
- ACUTE TOXICITY (inhalation) - Category 1
- SKIN IRRITATION - Category 2
- SERIOUS EYE DAMAGE - Category 1
- SKIN SENSITIZATION - Category 1
- GERM CELL MUTAGENICITY - Category 1
- CARCINOGENICITY - Category 1B
- TOXIC TO REPRODUCTION (Fertility) - Category 2
- SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (brain) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 5.8% (Oral), 76.9% (Dermal), 42.4% (Inhalation)

GHS label elements
Section 2. Hazards identification

Hazard pictograms:
- Skull and crossbones
- Dustbin
- Exclamation mark
- Gas mask

Signal word: Danger

Hazard statements:
- Fatal if inhaled.
- Harmful if swallowed or in contact with skin.
- Causes serious eye damage.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May cause genetic defects.
- May cause cancer.
- Suspected of damaging fertility.
- May cause damage to organs through prolonged or repeated exposure. (brain)

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. Wear respiratory protection. Use only outdoors or in a well-ventilated area. 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 or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately 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. Call a POISON CENTER or physician if you feel unwell. 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:
- Sanding and grinding dusts may be harmful if inhaled. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified:
- Oxidising potential: Contact with combustible material may cause fire. Keep away from clothing, incompatible materials and combustible materials. This material increases the risk of fire and may aid combustion. Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Product name: PS 872 B 1/2 Part A
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese dioxide</td>
<td>≥20 - ≤44</td>
<td>1313-13-9</td>
</tr>
<tr>
<td>Terphenyl, hydrogenated magnesium chromate</td>
<td>≥20 - ≤50</td>
<td>61788-32-7</td>
</tr>
<tr>
<td>Terphenyl</td>
<td>≥10 - ≤18</td>
<td>13423-61-5</td>
</tr>
<tr>
<td>Zeolites</td>
<td>≥5.0 - ≤10</td>
<td>1318-02-1</td>
</tr>
<tr>
<td>Polyphenyls, quater- and higher, partially hydrogenated terphenyl</td>
<td>≥1.0 - ≤5.0</td>
<td>68956-74-1</td>
</tr>
<tr>
<td>1,3-diphenylguanidine</td>
<td>≤2.0</td>
<td>26140-60-3</td>
</tr>
<tr>
<td></td>
<td>≤1.3</td>
<td>102-06-7</td>
</tr>
</tbody>
</table>

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 persists 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**

- Fatal if inhaled.

**Skin contact**

- Harmful in contact with skin. Causes skin irritation. Defatting to the skin. 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
Section 4. First aid measures

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
- dryness
- cracking
- 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

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 very 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
- sulfur oxides
- metal oxide/oxides
Section 5. Fire-fighting measures

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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers
Section 7. Handling and storage

Special precautions
Retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene
Ingestion of product or cured coating may be harmful. Keep away from combustible materials. 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.

Conditions for safe storage, including any incompatibilities
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.

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>
</table>
| Manganese dioxide | ACGIH TLV (United States, 3/2017).  
TWA: 0.1 mg/m³, (as Mn) 8 hours. Form: Inhalable fraction  
TWA: 0.02 mg/m³, (as Mn) 8 hours. Form: Respirable fraction  
OSHA PEL (United States, 6/2016).  
CEIL: 5 mg/m³, (as Mn)  |
| Terphenyl, hydrogenated | ACGIH TLV (United States, 3/2017).  
TWA: 4.9 mg/m³ 8 hours.  
TWA: 0.5 ppm 8 hours.  
OSHA PEL Z2 (United States, 2/2013).  
CEIL: 1 mg/10m³  |
| Magnesium chromate | ACGIH TLV (United States, 3/2017).  
TWA: 0.05 mg/m³, (measured as Cr) 8 hours. Form: Soluble  
OSHA PEL (United States, 6/2016).  
TWA: 0.005 mg/m³, (as Cr) 8 hours.  
ACGIH TLV (United States, 3/2017).  
TWA: 1 mg/m³ 8 hours. Form: Respirable fraction  
OSHA PEL (United States, 6/2016).  
C: 5 mg/m³  
C: 0.53 ppm  |
| Zeolites | None.  
ACGIH TLV (United States, 3/2017).  
C: 9 mg/m³  
CEIL: 1 ppm  |
| Polyphenyls, quater- and higher, partially hydrogenated terphenyl | |
### Section 8. Exposure controls/personal protection

#### 1,3-diphenylguanidine

| Hand protection | None. |
| Body protection | None. |

#### 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.
- **R** = Respirable
- **Z** = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

- **S** = Potential skin absorption
- **SR** = Respiratory sensitization
- **SS** = Skin sensitization
- **STEL** = Short term Exposure limit values
- **TD** = Total dust
- **TLV** = Threshold Limit Value
- **TWA** = Time Weighted Average

#### Consult local authorities for acceptable exposure limits.

**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**

Use only with adequate ventilation. 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.
Section 8. Exposure controls/personal protection

**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

| 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: Not applicable. |
| Material supports combustion | Yes. |
| 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 | 1.89 |
| Density ( lbs / gal ) | 15.77 |
| Solubility | Insoluble 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) |
| VOC | 0 |
| % Solid. (w/w) | 100 |

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.
Section 10. Stability and reactivity

**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>Manganese dioxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3478 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Terphenyl, hydrogenated</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>17500 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Zeolites</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>terphenyl</td>
<td>LD50 Oral</td>
<td>Rat - Female</td>
<td>2304 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>1,3-diphenylguanidine</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>323 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

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

#### Irritation/Corrosion

**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>magnesium chromate</td>
<td>+</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Zeolites</td>
<td>-</td>
<td>3</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>magnesium chromate</td>
<td>Category 3</td>
</tr>
<tr>
<td>1,3-diphenylguanidine</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>manganese dioxide</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Target organs: Contains material which causes damage to the following organs: lungs, skin, central nervous system (CNS), nose/sinuses. Contains material which may cause damage to the following organs: blood, kidneys, the nervous system, liver, spleen, lymphatic system, upper respiratory tract, bone marrow, 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: Fatal if inhaled.

Skin contact: Harmful in contact with skin. Causes skin irritation. Defatting to the skin. 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
- dryness
- cracking
- blistering may occur
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations
Section 11. Toxicological information

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

**Conclusion/Summary**

**General**

**Carcinogenicity**

**Mutagenicity**

**Teratogenicity**

**Developmental effects**

**Fertility effects**

**Potential chronic health effects**

**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>389 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>1386.1 mg/kg</td>
</tr>
<tr>
<td>Inhalation (gases)</td>
<td>7507.8 ppm</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>18.35 mg/l</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>0.01563 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>Terphenyl</td>
<td>Acute EC50 0.022 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.00322 mg/l</td>
<td>Daphnia</td>
<td>72 hours</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

**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>terphenyl</td>
<td>-</td>
<td>-</td>
<td>Not 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>1,3-diphenylguanidine</td>
<td>1.69</td>
<td>19.95</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

Section 14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN3082</td>
<td>UN3082</td>
<td>UN3082</td>
<td></td>
</tr>
</tbody>
</table>

**UN proper shipping name**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (magnesium chromate, terphenyl)

**Transport hazard class(es)**: 9

**Packing group**: III

**Environmental hazards**: Yes.
14. Transport information

| Marine pollutant substances | Not applicable. | (magnesium chromate, terphenyl) | Not applicable. |

Additional information

**DOT**
- Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. This product is not regulated as a hazardous material when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.

**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.

**United States - TSCA 12(b) - Chemical export notification**
- Magnesium chromate
- Annual notification

**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
  - ACUTE TOXICITY (dermal) - Category 4
  - ACUTE TOXICITY (inhalation) - Category 1
  - SKIN IRRITATION - Category 2
  - SERIOUS EYE DAMAGE - Category 1
  - SKIN SENSITIZATION - Category 1
  - GERM CELL MUTAGENICITY - Category 1
  - CARCINOGENICITY - Category 1B
  - TOXIC TO REPRODUCTION (Fertility) - Category 2
  - SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (brain) - Category 2
  - HNOC - Avoid contact with organic materials.
  - HNOC - Defatting irritant

**Composition/information on ingredients**
## Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>manganese dioxide</td>
<td>≥20 - ≤44</td>
<td>ACUTE TOXICITY (oral) - Category 4&lt;br&gt;ACUTE TOXICITY (inhalation) - Category 4&lt;br&gt;SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2&lt;br&gt;SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (brain) (inhalation) - Category 2&lt;br&gt;HNOC - Avoid contact with organic materials.&lt;br&gt;ACUTE TOXICITY (oral) - Category 3&lt;br&gt;ACUTE TOXICITY (dermal) - Category 4&lt;br&gt;ACUTE TOXICITY (inhalation) - Category 1&lt;br&gt;SKIN IRRITATION - Category 2&lt;br&gt;SERIOUS EYE DAMAGE - Category 1&lt;br&gt;Skin SENSITIZATION - Category 1B&lt;br&gt;GERM CELL MUTAGENICITY (inhalation) - Category 1B&lt;br&gt;CARCINOGENICITY (inhalation) - Category 1B&lt;br&gt;SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3&lt;br&gt;HNOC - Defatting irritant</td>
</tr>
<tr>
<td>magnesium chromate</td>
<td>≥10 - ≤18</td>
<td>ACUTE TOXICITY (oral) - Category 4&lt;br&gt;ACUTE TOXICITY (dermal) - Category 4&lt;br&gt;ACUTE TOXICITY (inhalation) - Category 1&lt;br&gt;SKIN IRRITATION - Category 2&lt;br&gt;SKIN SENSITIZATION - Category 1B&lt;br&gt;GERM CELL MUTAGENICITY (inhalation) - Category 1B&lt;br&gt;CARCINOGENICITY (inhalation) - Category 1B&lt;br&gt;SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td>Polyphenyls, quater- and higher, partially hydrogenated 1,3-diphenylguanidine</td>
<td>≥1.0 - ≤5.0</td>
<td>COMBUSTIBLE DUSTS&lt;br&gt;ACUTE TOXICITY (oral) - Category 4&lt;br&gt;SKIN IRRITATION - Category 2&lt;br&gt;EYE IRRITATION - Category 2A&lt;br&gt;TOXIC TO REPRODUCTION (Fertility) - Category 2&lt;br&gt;SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td></td>
<td>≤1.3</td>
<td></td>
</tr>
</tbody>
</table>

**SARA 313**

<table>
<thead>
<tr>
<th>Supplier notification</th>
<th>Chemical name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>manganese dioxide</td>
<td>1313-13-9</td>
<td>15 - 40</td>
<td></td>
</tr>
<tr>
<td>magnesium chromate</td>
<td>13423-61-5</td>
<td>10 - 30</td>
<td></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.

### California Prop. 65

⚠️ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

## Section 16. Other information

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

**Health:** 3  
**Flammability:** 0  
**Physical hazards:** 1

( * ) - Chronic effects

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>0</td>
<td>1</td>
</tr>
</tbody>
</table>

* United States  
Page: 14/15
Section 16. Other information

Date of previous issue : 9/21/2017
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.
SAFETY DATA SHEET

Date of issue/Date of revision: 16 May 2018
Version: 11.01

Section 1. Identification

Product name: PS 872 B 1/2 Part B
Product code: PS 872 B 1/2 Part B
Other means of identification: Not available.
Product type: Liquid.

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

Product use: Industrial applications.
Use of the substance/mixture: Sealants
Uses advised against: Not applicable.

Manufacturer: PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar, CA 91342
Phone: 818 362 6711
(412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

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:
- FLAMMABLE LIQUIDS - Category 3
- CARCINOGENICITY - Category 2
- TOXIC TO REPRODUCTION (Unborn child) - Category 2
- SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 14.5% (Oral), 91.1% (Dermal), 91.1% (Inhalation)

This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).
Section 2. Hazards identification

Hazard pictograms:

Signal word: Warning
Hazard statements:
- Flammable liquid and vapor.
- Suspected of damaging the unborn child.
- Suspected of causing cancer.
- May cause damage to organs through prolonged or repeated exposure.

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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Do not breathe vapor.

Response:
- Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Storage:
- Store locked up. Store in a well-ventilated place. Keep cool.

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. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified:
- Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Product name: PS 872 B 1/2 Part B

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium carbonate</td>
<td>≥20 - ≤50</td>
<td>471-34-1</td>
</tr>
<tr>
<td>toluene</td>
<td>≥5.0 - &lt;10</td>
<td>108-88-3</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>≥5.0 - ≤10</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>Aluminium powder (stabilized)</td>
<td>≥1.0 - ≤5.0</td>
<td>7429-90-5</td>
</tr>
<tr>
<td>tetrakis(diethyldithiocarbamato-S,S')tellurium</td>
<td>&lt;1.0</td>
<td>20941-65-5</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.
Section 3. Composition/information on ingredients

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 persists 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 : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
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 : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : Defatting to the skin. May cause skin dryness and irritation.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact : Adverse symptoms may include the following: irritation dryness cracking reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion : Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary
Section 4. First aid measures

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media: Do not use water jet.

Specific hazards arising from the chemical: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is harmful 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
- halogenated compounds
- metal oxide/oxides
- Formaldehyde.

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing 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".
Section 6. Accidental release measures

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. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. 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). 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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. 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.

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.
Section 7. Handling and storage

**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 a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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>Calcium carbonate</td>
<td>ACGIH TLV (United States).</td>
</tr>
<tr>
<td></td>
<td>TWA: 3 mg/m³ Form: Respirable</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m³ Form: Total dust</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States).</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ Form: Respirable</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³</td>
</tr>
<tr>
<td>Toluene</td>
<td>OSHA PEL Z2 (United States, 2/2013).</td>
</tr>
<tr>
<td></td>
<td>AMP: 500 ppm 10 minutes.</td>
</tr>
<tr>
<td></td>
<td>CEIL: 300 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 200 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2017).</td>
</tr>
<tr>
<td></td>
<td>TWA: 20 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2017).</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2017).</td>
</tr>
<tr>
<td></td>
<td>TWA: 1 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³, (as Al) 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³, (as Al) 8 hours. Form: Total dust</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>ACGIH TLV (United States, 3/2017).</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.1 mg/m³, (as Te) 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.1 mg/m³, (as Te) 8 hours.</td>
</tr>
</tbody>
</table>

**tetrakis(diethyldithiocarbamato-S,S')tellurium**

**Key to abbreviations**

| A   = Acceptable Maximum Peak                  | S    = Potential skin absorption |
| ACGIH = American Conference of Governmental Industrial Hygienists. | SR   = Respiratory sensitization |
| C   = Ceiling Limit                            | SS   = Skin sensitization       |
| F   = Fume                                     | STEL = Short term Exposure limit values |
| IPEL = Internal Permissible Exposure Limit      | TD   = Total dust               |
| OSHA = Occupational Safety and Health Administration. | TLV  = Threshold Limit Value    |
| R   = Respirable                               | TWA  = Time Weighted Average    |

Consult local authorities for acceptable exposure limits.
# 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**

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

- Safety glasses with side shields.

**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**

- For prolonged or repeated handling, use the following type of gloves:
  - Recommended: natural rubber (latex)

**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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**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**: White.
- **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: 23.33°C (74°F)

**Material supports combustion**: Yes.

**Auto-ignition temperature**: Not available.

**Decomposition temperature**: Not available.

**Flammability (solid, gas)**: Not available.

**Lower and upper explosive (flammable) limits**: Lower: 1%

**Evaporation rate**: Not available.

**Vapor pressure**: Not available.

**Vapor density**: Not available.

**Relative density**: 1.46

**Density ( lbs / gal )**: 12.18

**Solubility**: Insoluble 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)

**VOC**: 93 g/l

**% Solid. (w/w)**: 93.63

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.
Section 10. Stability and reactivity

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>calcium carbonate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>6450 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>49 g/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td>toluene</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>8.39 g/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rabbit</td>
<td>5580 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;11 g/kg</td>
<td></td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;16000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>tetrakis (diethylthiocarbamato-S,S') tellurium</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

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

Irritation/Corrosion

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

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Route of exposure</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>tetrakis (diethylthiocarbamato-S,S') tellurium</td>
<td>skin</td>
<td>Guinea pig</td>
<td>Not sensitizing</td>
</tr>
</tbody>
</table>

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>toluene</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
<tr>
<td>tetrakis (diethylthiocarbamato-S,S') tellurium</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>

Carcinogen Classification code: United States Page: 9/15
Section 11. Toxicological information

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

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>toluene</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>toluene</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

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

Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>toluene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure

Potential acute health effects

Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: Defatting to the skin. May cause skin dryness and irritation.
Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.
Inhalation: Adverse symptoms may include the following:
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

Skin contact: Adverse symptoms may include the following:
  - irritation
  - dryness
  - cracking
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations
Section 11. Toxicological information

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

Conclusion/Summary:

General:
- Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- No known significant effects or critical hazards.
- Suspected of damaging the unborn child.
- No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

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

Potential chronic health effects:

General:
- May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- No known significant effects or critical hazards.
- Suspected of damaging the unborn child.
- No known significant effects or critical hazards.
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>titanium dioxide</td>
<td>Acute LC50 &gt;100 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</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>toluene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>toluene</td>
<td>2.73</td>
<td>8.32</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

| Soil/water partition coefficient (K_{OC}) | : 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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. 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
14. Transport information

<table>
<thead>
<tr>
<th>DOT</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1133</td>
<td>UN1133</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>ADHESIVES</td>
<td>ADHESIVES</td>
</tr>
<tr>
<td>Transport hazard class (es)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>

Environmental hazards
- No. Not applicable.
- Marine pollutant substances
  - Not applicable.
- Product RQ (lbs)
  - 8006.1 (thiram (ISO), toluene)
- RQ substances
  - Not applicable.
- Not applicable.
- Not applicable.

Additional information
- DOT: Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- IMDG: None identified.
- IATA: None identified.

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
- FLAMMABLE LIQUIDS - Category 3
- CARCINOGENICITY - Category 2
- TOXIC TO REPRODUCTION (Unborn child) - Category 2
- SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
- HNOC - Defatting irritant

Composition/information on ingredients
Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
</table>
| Toluene                       | ≥5.0 - <10 | FLAMMABLE LIQUIDS - Category 2  
SKIN IRRITATION - Category 2  
TOXIC TO REPRODUCTION (Unborn child) - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
ASPIRATION HAZARD - Category 1  
HNOC - Defatting irritant  
CARCINOGENICITY - Category 2  
COMBUSTIBLE DUSTS  
ACUTE TOXICITY (inhalation) - Category 2  
CARCINOGENICITY - Category 2  
HNOC - Defatting irritant |
| Titanium dioxide              | ≥5.0 - ≤10 | FLAMMABLE LIQUIDS - Category 2  
SKIN IRRITATION - Category 2  
TOXIC TO REPRODUCTION (Unborn child) - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
ASPIRATION HAZARD - Category 1  
HNOC - Defatting irritant  
CARCINOGENICITY - Category 2  
COMBUSTIBLE DUSTS  
ACUTE TOXICITY (inhalation) - Category 2  
CARCINOGENICITY - Category 2  
HNOC - Defatting irritant |
| Tetrakis(diethyldithiocarbamato-S,S')tellurium | <1.0    | FLAMMABLE LIQUIDS - Category 2  
SKIN IRRITATION - Category 2  
TOXIC TO REPRODUCTION (Unborn child) - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
ASPIRATION HAZARD - Category 1  
HNOC - Defatting irritant  
CARCINOGENICITY - Category 2  
COMBUSTIBLE DUSTS  
ACUTE TOXICITY (inhalation) - Category 2  
CARCINOGENICITY - Category 2  
HNOC - Defatting irritant |

SARA 313

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>3 - 7</td>
</tr>
<tr>
<td>Aluminium powder (stabilized)</td>
<td>7429-90-5</td>
<td>1 - 5</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.

California Prop. 65

⚠️ WARNING: Reproductive Harm - www.P65Warnings.ca.gov.

Section 16. Other information

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

Health : 2  
Flammability : 3  
Physical hazards : 0

( * ) - Chronic effects

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.)

Health : 2  
Flammability : 3  
Instability : 0

Date of previous issue : 12/11/2017

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  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973
Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

⚠ Indicates information that has changed from previously issued version.

Disclaimer

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