1. Identification

1.1. Product identifier

Trade name: Diallyl Phthalate, (Short Glass), All Colors
Product form: Mixture

2. Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)
- Carc. 1A: H350
- Aquatic Acute 3: H402
- Aquatic Chronic 3: H412

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling
Hazard pictograms:
- Signal word: Danger

Hazard statements:
- H350 - May cause cancer
- H402 - Harmful to aquatic life
- H412 - Harmful to aquatic life with long lasting effects
- H232 - May form combustible dust concentrations in air

Precautionary statements:
- P202 - Do not handle until all safety precautions have been read and understood
- P264 - Wash hands, forearms and face thoroughly after handling
- P273 - Avoid release to the environment
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P501 - Dispose of contents/container in accordance with all federal, state, and local health and environmental regulations.
2.3. Other hazards

Other hazards not contributing to the classification

High concentration of airborne dust may form an explosive mixture with air. Ensure that good housekeeping practices are followed, as well as applicable guidelines such as National Fire Protection Association (NFPA) 654, “Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids.

2.4. Unknown acute toxicity (GHS US)

Not applicable

3. Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium(IV) oxide</td>
<td>(CAS No) 13463-67-7</td>
<td>0.1 - 1</td>
<td>Carc. 2, H351</td>
</tr>
<tr>
<td>quartz</td>
<td>(CAS No) 14808-60-7</td>
<td>0.1 - 1</td>
<td>Carc. 1A, H350</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Call a POISON CENTER or doctor/physician if you feel unwell. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: May cause cancer by inhalation.
4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

5. Firefighting measures

5.1. Extinguishing media

Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Explosion hazard: high concentration of airborne dust may form an explosive mixture with air.

5.3. Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Remove ignition sources. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.
7. Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed: Avoid breathing fumes from molding or other processes involving heat. Avoid breathing dusts from cutting, machining or de-flashing operations. Guard against dust accumulation of this material. High concentrations of airborne dust may form explosive mixture with air. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Proper grounding procedures to avoid static electricity should be followed.

Storage conditions: Keep only in the original container. Keep container closed when not in use. Keep cool.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

Storage area: Store in cool, dry place.

7.3. Specific end use(s)

No additional information available

8. Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>GREEN DIALLYL PHTHALATE, (SHORT GLASS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
</tr>
<tr>
<td>OSHA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>quartz (14808-60-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH TWA (mg/m³)</td>
</tr>
</tbody>
</table>

| OSHA Remark (OSHA) | (3) See Table Z-3. |

| titanium(IV) oxide (13463-67-7) |
SAFETY DATA SHEET

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revision date 4/7/2016

10 mg/m³ (Titanium dioxide; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>Remark (ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LRT irr; A3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OSHA</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15 mg/m³</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Personal protective equipment: Avoid all unnecessary exposure.
Hand protection: Wear protective gloves.
Eye protection: Chemical goggles or safety glasses.
Respiratory protection: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask.
Other information: Do not eat, drink or smoke during use.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Solid
Color: Green
Odor: Characteristic
Odor threshold: Characteristic odor Mild odor
pH: No data available
Melting point: No data available
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Relative evaporation rate (butyl acetate=1): No data available
Flammability (solid, gas): No data available
Explosion limits: No data available
Explosive properties: Mixtures of fine dust and air can create an explosion hazard.
Oxidizing properties: No data available
Vapor pressure: No data available
Relative density: 1.7 – 1.8
Relative vapor density at 20 °C: No data available
Specific gravity / density: 1.7 – 1.8 g/cm³
Solubility: Water: Solubility in water of component(s) of the mixture:
- diallyl phthalate: < 0.1 g/100ml
- methanol: >= 100 g/100ml (20 °C)
- : 0.01g/100ml
- quartz: insoluble
- : < 0.01 g/100ml
- calcium stearate: 0.0040 g/100ml
- tert-butyl perbenzoate: 0.01 g/100ml
- acetone: Complete
- copper, powder: < 0.1 g/100ml (30 °C)
- : < 0.00001 g/100ml
- titanium(IV) oxide: 0.15 g/100ml
- aluminium oxide, non-fibrous: < 0.01 g/100ml

Log Pow: No data available
Log Kow: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
9.2. Other information

No additional information available

10. Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7). Not established.

10.3. Possibility of hazardous reactions

Not established

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products


11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

titanium(IV) oxide (13463-67-7)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 10000 mg/kg (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value; &gt; 5000 mg/kg bodyweight; Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 10000 mg/kg (Rabbit; Literature study)</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 6.8 mg/l/4h (Rat; Experimental value)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Based on available data, the classification criteria are not met.

Carcinogenicity:
- May cause cancer.

### quartz (14808-60-7)

| IARC group | 1 - Carcinogenic to humans |

### titanium(IV) oxide (13463-67-7)

| IARC group | 2B - Possibly carcinogenic to humans |

Reproductive toxicity:
- Not classified

Specific target organ toxicity (single exposure):
- Not classified

Specific target organ toxicity (repeated exposure):
- Not classified

Aspiration hazard:
- Not classified

Potential Adverse human health effects and Symptoms:
- Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation:
- May cause cancer by inhalation.

### 12. Ecological information

#### 12.1. Toxicity

Ecology - water: Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

### titanium(IV) oxide (13463-67-7)

| EC50 Daphnia 1 | > 100 mg/l (LC50; Equivalent or similar to OECD 202; 48 h; Daphnia magna; Static system; Fresh water; Weight of evidence) |
| Threshold limit algae 1 | 61 mg/l (EC50; Other; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value) |

### 12.2. Persistence and degradability

| Persistence and degradability | May cause long-term adverse effects in the environment. |
| quartz (14808-60-7) | Biodegradability: not applicable. |
| Persistence and degradability | Biodegradability: not applicable. Low potential for mobility in soil. |
| Biodegradability (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |

### titanium(IV) oxide (13463-67-7)

| Persistence and degradability | Biodegradability: not applicable. Low potential for mobility in soil. |
| Biodegradability (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>GREEN Diallyl Phthalate, (SHORT GLASS)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>titanium(IV) oxide (13463-67-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>Not bioaccumulative.</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming: No known ecological damage caused by this product.

Other information: Avoid release to the environment.

13. Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container in accordance with all federal, state, and local health and environmental regulations.

Ecology - waste materials: Avoid release to the environment.

14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated for transport
Additional information
Other information: No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available
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1-800-255-3924
revision date 4/7/2016

15. Regulatory information

15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>quartz (14808-60-7)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>titanium(IV) oxide (13463-67-7)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>quartz (14808-60-7)</td>
<td>Listed on IARC (International Agency for Research on Cancer)</td>
</tr>
<tr>
<td>titanium(IV) oxide (13463-67-7)</td>
<td>Listed on IARC (International Agency for Research on Cancer)</td>
</tr>
</tbody>
</table>

15.3. US State regulations

No additional information available

16. Other information

Indication of changes: Revision - See : *
Other information: None.
Full text of H-phrases:

<table>
<thead>
<tr>
<th>Aquatic Acute 3</th>
<th>Hazardous to the aquatic environment - Acute Hazard Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Chronic 3</td>
<td>Hazardous to the aquatic environment - Chronic Hazard Category 3</td>
</tr>
<tr>
<td>Carc. 1A</td>
<td>Carcinogenicity Category 1A</td>
</tr>
<tr>
<td>Carc. 2</td>
<td>Carcinogenicity Category 2</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>H351</td>
<td>Suspected of causing cancer</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>
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