

## Section 1. Identification

**GHS product identifier** : DUZ-ALL Powder

**Other means of identification** : Not available.

**Product code** : 166261, 166263, 166264, 166267

**Product type** : Powder.

**Product use** : Dental Products

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

Not applicable.

**Supplier's details** : Keystone Industries  
52 West King Street  
Myerstown, PA 17067  
(856) 663-4700

**Emergency telephone number (with hours of operation)** : (800) 535-5053

## 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** : COMBUSTIBLE DUSTS  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 1B  
TOXIC TO REPRODUCTION (Fertility) - Category 2  
TOXIC TO REPRODUCTION (Unborn child) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 80%

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : May form combustible dust concentrations in air.  
May cause an allergic skin reaction.  
May cause cancer.  
Suspected of damaging fertility or the unborn child.

### 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. Avoid breathing dust. Contaminated work clothing must not be allowed out of the workplace.

**Response** : IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

**Storage** : Store locked up.

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

## Section 2. Hazards identification

- Supplemental label elements** : Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
- Hazards not otherwise classified** : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

### CAS number/other identifiers

- CAS number** : Not applicable.

May contain one or more of the following components in quantities considered hazardous:

| Ingredient name    | CAS number | EC number | %  |
|--------------------|------------|-----------|----|
| dibenzoyl peroxide | 94-36-0    | 202-327-6 | ≤3 |
| Cadmium            | 7440-43-9  | 231-152-8 | <1 |
| titanium dioxide   | 13463-67-7 | 236-675-5 | ≤1 |

*Cadmium is not included in clear and white shades; Titanium Dioxide is not included in clear shade.*

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

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

### Potential acute health effects

## Section 4. First aid measures

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
irritation  
redness
- Inhalation** : Adverse symptoms may include the following:  
Suspected of damaging fertility.  
Suspected of damaging fertility or the unborn child.  
Suspected of damaging the unborn child.  
respiratory tract irritation  
coughing
- Skin contact** : Adverse symptoms may include the following:  
Suspected of damaging fertility.  
Suspected of damaging fertility or the unborn child.  
Suspected of damaging the unborn child.  
redness  
irritation
- Ingestion** : Adverse symptoms may include the following:  
Suspected of damaging fertility.  
Suspected of damaging fertility or the unborn child.  
Suspected of damaging the unborn child.

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

- 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. 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 dry chemical powder.
- Unsuitable extinguishing media** : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

- Specific hazards arising from the chemical** : May form explosible dust-air mixture if dispersed.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

## 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. 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 dust. 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** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : 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. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. 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 ingest. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. 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. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

- : 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 above the following temperature: 240°C (464°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

### Occupational exposure limits

| Ingredient name    | Exposure limits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dibenzoyl peroxide | <p><b>ACGIH TLV (United States, 3/2016).</b><br/>TWA: 5 mg/m<sup>3</sup> 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/>TWA: 5 mg/m<sup>3</sup> 8 hours.</p> <p><b>NIOSH REL (United States, 10/2013).</b><br/>TWA: 5 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 2/2013).</b><br/>TWA: 5 mg/m<sup>3</sup> 8 hours.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Cadmium            | <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/>TWA: 5 µg/m<sup>3</sup> 8 hours.</p> <p>TWA: 0.2 mg/m<sup>3</sup>, (as Cd) 8 hours. Form: Dust<br/>CEIL: 0.6 mg/m<sup>3</sup>, (as Cd) Form: Dust<br/>TWA: 0.1 mg/m<sup>3</sup>, (as Cd) 8 hours. Form: Fume<br/>CEIL: 0.3 mg/m<sup>3</sup>, (as Cd) Form: Fume</p> <p><b>OSHA PEL Z2 (United States, 2/2013).</b><br/>TWA: 0.2 mg/m<sup>3</sup> 8 hours. Form: Dust<br/>CEIL: 0.6 mg/m<sup>3</sup> Form: Dust<br/>TWA: 0.1 mg/m<sup>3</sup> 8 hours. Form: Fume<br/>CEIL: 0.3 mg/m<sup>3</sup> Form: Fume</p> <p><b>OSHA PEL (United States, 2/2013).</b><br/>TWA: 5 µg/m<sup>3</sup>, (as Cd) 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2016).</b><br/>TWA: 0.01 mg/m<sup>3</sup>, (as Cd) 8 hours. Form: Inhalable fraction<br/>TWA: 0.002 mg/m<sup>3</sup>, (as Cd) 8 hours. Form: Respirable fraction</p> |
| titanium dioxide   | <p><b>ACGIH TLV (United States, 3/2016).</b><br/>TWA: 10 mg/m<sup>3</sup> 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/>TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust</p> <p><b>OSHA PEL (United States, 2/2013).</b><br/>TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. 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. 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. 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** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.
- 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.
- 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** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Solid. [Powder.]
- Color** : Fine Pink, Pink/Vein, White, or Tan
- Odor** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: 304°C (579.2°F)
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.

## Section 9. Physical and chemical properties

|                                               |                                                                   |
|-----------------------------------------------|-------------------------------------------------------------------|
| <b>Vapor density</b>                          | : Not available.                                                  |
| <b>Relative density</b>                       | : 1.25                                                            |
| <b>Solubility</b>                             | : Insoluble in the following materials: cold water and hot water. |
| <b>Solubility in water</b>                    | : Not available.                                                  |
| <b>Partition coefficient: n-octanol/water</b> | : Not available.                                                  |
| <b>Auto-ignition temperature</b>              | : Not available.                                                  |
| <b>Viscosity</b>                              | : Not available.                                                  |

## Section 10. Stability and reactivity

|                                           |                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.                                                                                                                                                                                                                                                              |
| <b>Chemical stability</b>                 | : The product is stable.                                                                                                                                                                                                                                                                                                                                  |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.                                                                                                                                                                                                                                                                         |
| <b>Conditions to avoid</b>                | : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation. |
| <b>Incompatible materials</b>             | : Reactive or incompatible with the following materials:<br>oxidizing materials                                                                                                                                                                                                                                                                           |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.                                                                                                                                                                                                                                                    |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name | Result    | Species | Dose       | Exposure |
|-------------------------|-----------|---------|------------|----------|
| dibenzoyl peroxide      | LD50 Oral | Rat     | 6400 mg/kg | -        |
| Cadmium                 | LD50 Oral | Rat     | 2330 mg/kg | -        |

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure                             | Observation |
|-------------------------|--------------------------|---------|-------|--------------------------------------|-------------|
| dibenzoyl peroxide      | Eyes - Mild irritant     | Rabbit  | -     | 24 hours 500 milligrams              | -           |
|                         | Skin - Severe irritant   | Human   | -     | 1344 hours 5 Percent Intermittent    | -           |
| titanium dioxide        | Skin - Moderate irritant | Woman   | -     | 1 Percent                            | -           |
|                         | Skin - Mild irritant     | Human   | -     | 72 hours 300 Micrograms Intermittent | -           |

#### Classification

## Section 11. Toxicological information

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| dibenzoyl peroxide      | -    | 3    | -   |
| Cadmium                 | +    | 1    | -   |
| titanium dioxide        | -    | 2B   | -   |

### Specific target organ toxicity (repeated exposure)

| Name    | Category   | Route of exposure | Target organs  |
|---------|------------|-------------------|----------------|
| Cadmium | Category 1 | Not determined    | Not determined |

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
irritation  
redness
- Inhalation** : Adverse symptoms may include the following:  
Suspected of damaging fertility.  
Suspected of damaging fertility or the unborn child.  
Suspected of damaging the unborn child.  
respiratory tract irritation  
coughing
- Skin contact** : Adverse symptoms may include the following:  
Suspected of damaging fertility.  
Suspected of damaging fertility or the unborn child.  
Suspected of damaging the unborn child.  
redness  
irritation
- Ingestion** : Adverse symptoms may include the following:  
Suspected of damaging fertility.  
Suspected of damaging fertility or the unborn child.  
Suspected of damaging the unborn child.

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

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

## Section 11. Toxicological information

|                              |                                                                                                                                                                                            |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b>               | : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
| <b>Carcinogenicity</b>       | : May cause cancer. Risk of cancer depends on duration and level of exposure.                                                                                                              |
| <b>Mutagenicity</b>          | : No known significant effects or critical hazards.                                                                                                                                        |
| <b>Teratogenicity</b>        | : Suspected of damaging the unborn child.                                                                                                                                                  |
| <b>Developmental effects</b> | : No known significant effects or critical hazards.                                                                                                                                        |
| <b>Fertility effects</b>     | : Suspected of damaging fertility.                                                                                                                                                         |

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

| Product/ingredient name | Result                                          | Species                                                                | Exposure                         |
|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|----------------------------------|
| dibenzoyl peroxide      | EC50 0.83 mg/l<br>EC50 0.07 mg/l<br>LC50 2 mg/l | Algae<br>Daphnia<br>Fish                                               | 72 hours<br>48 hours<br>96 hours |
| Cadmium                 | Acute EC50 97 µg/l Fresh water                  | Algae - Pseudokirchneriella subcapitata - Exponential growth phase     | 72 hours                         |
|                         | Acute EC50 0.095 mg/l Marine water              | Algae - Ulva pertusa                                                   | 96 hours                         |
|                         | Acute EC50 200 µg/l Fresh water                 | Aquatic plants - Lemna minor                                           | 4 days                           |
|                         | Acute EC50 13.5 µg/l Fresh water                | Daphnia - Daphnia magna - Neonate                                      | 48 hours                         |
|                         | Acute LC50 0.072 µg/l Marine water              | Crustaceans - Amphipoda - Adult                                        | 48 hours                         |
|                         | Acute LC50 1 µg/l Fresh water                   | Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours                         |
|                         | Chronic NOEC 2 µg/l Fresh water                 | Algae - Parachlorella kessleri - Exponential growth phase              | 72 hours                         |
|                         | Chronic NOEC 0.02 µg/l Fresh water              | Fish - Cyprinus carpio                                                 | 4 weeks                          |
| titanium dioxide        | Acute LC50 3 mg/l Fresh water                   | Crustaceans - Ceriodaphnia dubia - Neonate                             | 48 hours                         |
|                         | Acute LC50 6.5 mg/l Fresh water                 | Daphnia - Daphnia pulex - Neonate                                      | 48 hours                         |
|                         | Acute LC50 >1000000 µg/l Marine water           | Fish - Fundulus heteroclitus                                           | 96 hours                         |

| Product/ingredient name | Test | Result         | Dose | Inoculum |
|-------------------------|------|----------------|------|----------|
| dibenzoyl peroxide      | -    | 60 % - 28 days | -    | -        |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| dibenzoyl peroxide      | -                 | -          | Inherent         |

### Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| dibenzoyl peroxide      | 3.2                | -   | low       |

## Section 12. Ecological information

### Mobility in soil

Soil/water partition coefficient ( $K_{oc}$ ) : Not available.

Other adverse effects : No known significant effects or critical hazards.

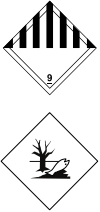
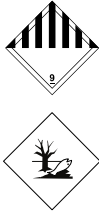
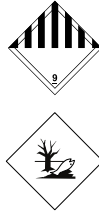
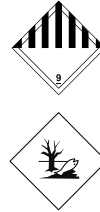
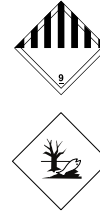
## Section 13. Disposal considerations

**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.

### United States - RCRA Toxic hazardous waste "U" List

| Ingredient                                                     | CAS #   | Status | Reference number |
|----------------------------------------------------------------|---------|--------|------------------|
| Diethyl phthalate; 1,2-Benzenedicarboxylic acid, diethyl ester | 84-66-2 | Listed | U088             |

## Section 14. Transport information

|                            | DOT Classification | TDG Classification                                                                       | Mexico Classification                                                                    | ADR/RID                                                                                   | IMDG                                                                                       | IATA                                                                                       |
|----------------------------|--------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| UN number                  | Not regulated.     | UN3077                                                                                   | UN3077                                                                                   | UN3077                                                                                    | UN3077                                                                                     | UN3077                                                                                     |
| UN proper shipping name    | -                  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)                  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)                  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)                   | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)                    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)                    |
| Transport hazard class(es) | -                  | 9<br> | 9<br> | 9<br> | 9<br> | 9<br> |
| Packing group              | -                  | III                                                                                      | III                                                                                      | III                                                                                       | III                                                                                        | III                                                                                        |
| Environmental hazards      | No.                | Yes.                                                                                     | Yes.                                                                                     | Yes.                                                                                      | Yes.                                                                                       | Yes.                                                                                       |
|                            |                    |                                                                                          |                                                                                          |                                                                                           |                                                                                            |                                                                                            |

## Section 14. Transport information

|                               |   |                                                                                                                                                                                                                                                                          |                                                                                                          |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                          |
|-------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Additional information</b> | - | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark).<br><br>Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail. | The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. | 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.<br><br><b><u>Tunnel code</u></b><br>(E) | 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.<br><br><b><u>IMDG Code Segregation group</u></b><br>16 - Peroxides | 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.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted.  
**Clean Water Act (CWA) 307:** diethyl phthalate; Cadmium

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

## Section 15. Regulatory information

**Classification** : Fire hazard  
 Immediate (acute) health hazard  
 Delayed (chronic) health hazard

### Composition/information on ingredients

| Name               | %  | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|--------------------|----|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| dibenzoyl peroxide | ≤3 | Yes.        | No.                        | Yes.     | Yes.                            | No.                             |
| Cadmium            | <1 | No.         | No.                        | No.      | Yes.                            | Yes.                            |
| titanium dioxide   | ≤1 | No.         | No.                        | No.      | No.                             | Yes.                            |

### SARA 313

|                                        | Product name       | CAS number | %  |
|----------------------------------------|--------------------|------------|----|
| <b>Form R - Reporting requirements</b> | dibenzoyl peroxide | 94-36-0    | ≤3 |
|                                        | Cadmium            | 7440-43-9  | <1 |
| <b>Supplier notification</b>           | dibenzoyl peroxide | 94-36-0    | ≤3 |
|                                        | Cadmium            | 7440-43-9  | <1 |

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.

### State regulations

**Massachusetts** : The following components are listed: DIETHYL PHTHALATE; 1, 2-BENZENEDICARBOXYLIC ACID DIETHYL ESTER; BENZOYL PEROXIDE

**New York** : The following components are listed: Diethyl phthalate; Cadmium

**New Jersey** : The following components are listed: DIETHYL PHTHALATE; 1, 2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER; DEP; BENZOYL PEROXIDE; DIBENZOYLPEROXIDE; CADMIUM; TITANIUM DIOXIDE; TITANIUM OXIDE (TiO<sub>2</sub>)

**Pennsylvania** : The following components are listed: 1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER; PEROXIDE, DIBENZOYL; CADMIUM DUST; TITANIUM OXIDE

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

| Ingredient name  | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|------------------|--------|--------------|---------------------------|---------------------------------|
| Cadmium          | Yes.   | Yes.         | 0.05 µg/day (inhalation)  | 4.1 µg/day (ingestion)          |
| titanium dioxide | Yes.   | No.          | No.                       | No.                             |

**Canada inventory** : All components are listed or exempted.

### International regulations

**International lists** :

- Australia inventory (AICS):** All components are listed or exempted.
- China inventory (IECSC):** All components are listed or exempted.
- Japan inventory (ENCS):** Not determined.
- Japan inventory (ISHL):** Not determined.
- Korea inventory:** All components are listed or exempted.
- Malaysia Inventory (EHS Register):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
- Philippines inventory (PICCS):** All components are listed or exempted.
- Taiwan Chemical Substances Inventory (TCSI):** All components are listed or exempted.
- Turkey inventory:** Not determined.

## Section 15. Regulatory information

Chemical Weapons : Not listed  
 Convention List Schedule  
 I Chemicals

Chemical Weapons : Not listed  
 Convention List Schedule  
 II Chemicals

Chemical Weapons : Not listed  
 Convention List Schedule  
 III Chemicals

## Section 16. Other information

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

|                     |   |   |
|---------------------|---|---|
| Health              | * | 1 |
| Flammability        |   | 1 |
| Physical hazards    |   | 0 |
| Personal protection |   |   |

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 are not required on SDSs 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 mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

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



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### History

Date of printing : 1/16/2017

Date of issue/Date of revision : 1/16/2017

Date of previous issue : No previous validation

Version : 1

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

## Section 16. Other information

UN = United Nations

### References

: Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Information contained within this SDS is only to be distributed as required by law.