

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

071426352

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

071427954 273021800

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

071419290

## Section 1. Identification

**GHS product identifier** : Trim & Trim II Powder (Clear, White, Tooth Shade)

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

**Product code** : 0921090, 0921092, 0921093, 0921094, 0921095, 0921096, 0921097, 0921100, 0921900, 0921901, 0921902

**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  
ACUTE TOXICITY (inhalation) - Category 3  
SKIN SENSITIZATION - Category 1  
GERM CELL MUTAGENICITY - Category 2  
CARCINOGENICITY - Category 1B  
TOXIC TO REPRODUCTION (Fertility) - Category 2  
TOXIC TO REPRODUCTION (Unborn child) - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1  
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.  
Toxic if inhaled.  
May cause an allergic skin reaction.  
May cause cancer.  
Suspected of damaging fertility or the unborn child.  
Suspected of causing genetic defects.  
Causes damage to organs through prolonged or repeated exposure.

### Precautionary statements

## Section 2. Hazards identification

<b>Prevention</b>	: 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. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. 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.
<b>Response</b>	: 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. Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
<b>Storage</b>	: Store locked up.
<b>Disposal</b>	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	: Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
<b>Hazards not otherwise classified</b>	: 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

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

### CAS number/other identifiers

<b>CAS number</b>	: Not applicable.
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May contain one or more of the following components in quantities considered hazardous:

<b>Ingredient name</b>	<b>CAS number</b>	<b>EC number</b>	<b>%</b>
dibenzoyl peroxide	94-36-0	202-327-6	≤5
Cadmium (Non-pyrophoric)	7440-43-9	231-152-8	<2
titanium dioxide	13463-67-7	236-675-5	≤1

*Cadmium Pigment 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

<b>Eye contact</b>	: 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.
<b>Inhalation</b>	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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.

## Section 4. First aid measures

- 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

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Toxic if inhaled. 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  
metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. 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. Do not breathe 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 breathe dust. Do not ingest. 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.

#### Advice on general occupational hygiene

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

#### Conditions for safe storage, including any incompatibilities

: Do not store 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

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
dibenzoyl peroxide	<b>ACGIH TLV (United States, 3/2016).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2013).</b> TWA: 5 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 2/2013).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
cadmium (non-pyrophoric)	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 µg/m <sup>3</sup> 8 hours. TWA: 0.2 mg/m <sup>3</sup> , (as Cd) 8 hours. Form: Dust CEIL: 0.6 mg/m <sup>3</sup> , (as Cd) Form: Dust TWA: 0.1 mg/m <sup>3</sup> , (as Cd) 8 hours. Form: Fume CEIL: 0.3 mg/m <sup>3</sup> , (as Cd) Form: Fume <b>OSHA PEL Z2 (United States, 2/2013).</b> TWA: 0.2 mg/m <sup>3</sup> 8 hours. Form: Dust CEIL: 0.6 mg/m <sup>3</sup> Form: Dust TWA: 0.1 mg/m <sup>3</sup> 8 hours. Form: Fume CEIL: 0.3 mg/m <sup>3</sup> Form: Fume

## Section 8. Exposure controls/personal protection

titanium dioxide

**OSHA PEL (United States, 2/2013).**TWA: 5 µg/m<sup>3</sup>, (as Cd) 8 hours.**ACGIH TLV (United States, 3/2016).**TWA: 0.01 mg/m<sup>3</sup>, (as Cd) 8 hours. Form: Inhalable fractionTWA: 0.002 mg/m<sup>3</sup>, (as Cd) 8 hours. Form: Respirable fraction**ACGIH TLV (United States, 3/2016).**TWA: 10 mg/m<sup>3</sup> 8 hours.**OSHA PEL 1989 (United States, 3/1989).**TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust**OSHA PEL (United States, 2/2013).**TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust

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

## 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	: 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.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: 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 (non-pyrophoric)	LD50 Oral	Rat	2330 mg/kg	-

#### Irritation/Corrosion



## Section 11. Toxicological information

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

Product/ingredient name	OSHA	IARC	NTP
dibenzoyl peroxide	-	3	-
cadmium (non-pyrophoric)	+	1	-
titanium dioxide	-	2B	-

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
cadmium (non-pyrophoric)	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** : Toxic if inhaled. 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

## Section 11. Toxicological information

### 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.

**General** : Causes damage to organs through prolonged or repeated exposure. 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.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : Suspected of causing genetic defects.

**Teratogenicity** : Suspected of damaging the unborn child.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : Suspected of damaging fertility.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	30064.5 mg/kg
Inhalation (dusts and mists)	0.6452 mg/l

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
dibenzoyl peroxide	EC50 0.83 mg/l EC50 0.07 mg/l LC50 2 mg/l	Algae Daphnia Fish	72 hours 48 hours 96 hours
cadmium (non-pyrophoric)	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

## Section 12. Ecological information

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

### Mobility in soil

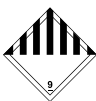
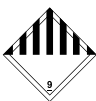







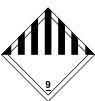

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

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.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN3077	UN3077	UN3077	UN3077	UN3077	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cadmium)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide, Cadmium)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide, Cadmium)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide, Cadmium)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide, Cadmium)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide, Cadmium)
Transport hazard class(es)	9 	9  	9  	9  	9  	9  

## Section 14. Transport information

Packing group	III	III	III	III	III	III
Environmental hazards	No.	Yes.	Yes.	Yes.	Yes.	Yes.
<b>Additional information</b>	<p><b>Reportable quantity</b> 645.16 lbs / 292.9 kg</p> <p>The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials.</p>	<p>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).</p> <p>Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.</p>	<p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p>	<p>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.</p> <p><b>Tunnel code</b> (E)</p>	<p>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.</p> <p><b>IMDG Code Segregation group</b> 16 - Peroxides</p>	<p>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.</p>

**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:** Cadmium (Non-pyrophoric)

## Section 15. Regulatory information

**Clean Air Act Section 112** : Listed

(b) Hazardous Air  
Pollutants (HAPs)

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

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

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

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

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**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	≤5	Yes.	No.	Yes.	Yes.	No.
cadmium (non-pyrophoric)	<2	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	≤5
	Cadmium (Non-pyrophoric)	7440-43-9	<2
<b>Supplier notification</b>	dibenzoyl peroxide	94-36-0	≤5
	Cadmium (Non-pyrophoric)	7440-43-9	<2

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: BENZOYL PEROXIDE; CADMIUM

**New York** : The following components are listed: Cadmium

**New Jersey** : The following components are listed: BENZOYL PEROXIDE; DIBENZOYLPEROXIDE; CADMIUM; TITANIUM DIOXIDE; TITANIUM OXIDE (TiO<sub>2</sub>)

**Pennsylvania** : The following components are listed: 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.

## Section 15. Regulatory information

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Cadmium (Non-pyrophoric)	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.

**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	*	2
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.)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

## Section 16. Other information

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	: 8/5/2016
Date of issue/Date of revision	: 8/5/2016
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) 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.



## Section 1. Identification

**GHS product identifier** : Trim & Trim II Liquid

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

**Product code** : 0921090, 0921091, 0921900, 0921903, 0921905, 0921906, 0921909, 0921914, 0921915

**Product type** : Liquid.

**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** : FLAMMABLE LIQUIDS - Category 3  
ACUTE TOXICITY (oral) - Category 4  
ACUTE TOXICITY (dermal) - Category 3  
ACUTE TOXICITY (inhalation) - Category 3  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION (Unborn child) - Category 1B  
TOXIC TO REPRODUCTION (Fertility) - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 87.1%

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : Flammable liquid and vapor.  
Toxic in contact with skin or if inhaled.  
Harmful if swallowed.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.  
May damage the unborn child.

## Section 2. Hazards identification

Suspected of damaging fertility.  
 Suspected of causing cancer.  
 May cause respiratory irritation.  
 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. 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. Call a POISON CENTER or physician. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Take off immediately all contaminated clothing and wash it before reuse. 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. If eye irritation persists: Get medical attention.

#### **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.

#### **Hazards not otherwise classified**

: None known.

## 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	%
isobutyl methacrylate	97-86-9	202-613-0	≥75 - ≤90
dibutyl phthalate	84-74-2	201-557-4	≤10
N,N-dimethyl-p-toluidine	99-97-8	202-805-4	≤4

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 it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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. 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.
- 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. If necessary, call a poison center or physician. 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. If necessary, call a poison center or physician. 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

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Toxic if inhaled. May cause respiratory irritation.
- Skin contact** : Toxic in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

#### Over-exposure signs/symptoms

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

## Section 4. First aid measures

### 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 dry chemical, CO<sub>2</sub>, 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. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

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

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. 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. 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

## Section 6. Accidental release measures

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

- Conditions for safe storage, including any incompatibilities** : 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

Ingredient name	Exposure limits
dibutyl phthalate	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 3/2016).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2013).</b> TWA: 5 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 2/2013).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.

## Section 8. Exposure controls/personal protection

N,N-dimethyl-p-toluidine

AIHA WEEL (United States, 10/2011).  
TWA: 0.5 ppm 8 hours.

### 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. 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: chemical splash 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. 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

: 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	: Liquid. [Clear.]
Color	: Colorless.
Odor	: Acrid.
pH	: Not available.
Melting point	: Not available.
Boiling point	: 155°C (311°F)
Flash point	: Closed cup: 45°C (113°F)



## Section 9. Physical and chemical properties

<b>Evaporation rate</b>	: 0.5 (butyl acetate = 1)
<b>Lower and upper explosive (flammable) limits</b>	: Lower: 1.8% Upper: 8.2%
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: 4.91 [Air = 1]
<b>Relative density</b>	: 0.9
<b>Solubility</b>	: Not available.
<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 all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
<b>Incompatible materials</b>	: Reactive or incompatible with the following materials: 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
dibutyl phthalate	LD50 Oral	Rat	7499 mg/kg	-
N,N-dimethyl-p-toluidine	LC50 Inhalation Vapor	Rat	1400 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	980 mg/kg	-

#### Classification

Product/ingredient name	OSHA	IARC	NTP
N,N-dimethyl-p-toluidine	-	2B	-

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

Name	Category	Route of exposure	Target organs
isobutyl methacrylate	Category 3	Not applicable.	Respiratory tract irritation

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



## Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
N,N-dimethyl-p-toluidine	Category 2	Not determined	Not determined

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

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : Toxic if inhaled. May cause respiratory irritation.  
**Skin contact** : Toxic in contact with skin. Causes skin irritation. May cause an allergic skin reaction.  
**Ingestion** : Harmful if swallowed.

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

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

**Inhalation** : Adverse symptoms may include the following:  
 Suspected of damaging fertility.  
 May damage the unborn child.  
 respiratory tract irritation  
 coughing

**Skin contact** : Adverse symptoms may include the following:  
 Suspected of damaging fertility.  
 May damage the unborn child.  
 redness  
 irritation

**Ingestion** : Adverse symptoms may include the following:  
 Suspected of damaging fertility.  
 May damage 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.

**General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : May damage the unborn child.

**Developmental effects** : No known significant effects or critical hazards.

## Section 11. Toxicological information

**Fertility effects** : Suspected of damaging fertility.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	305.6 mg/kg
Dermal	916.7 mg/kg
Inhalation (vapors)	9.167 mg/l

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
dibutyl phthalate	Acute EC50 3.4 µg/l Marine water	Algae - Karenia brevis	96 hours
	Acute EC50 2990 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 480 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
N,N-dimethyl-p-toluidine	Chronic NOEC 210 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Chronic NOEC 500 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 25 µg/l Fresh water	Fish - Danio rerio - Embryo	5 weeks
	Acute LC50 46000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
isobutyl methacrylate	2.95	-	low
dibutyl phthalate	4.46	165.96	low
N,N-dimethyl-p-toluidine	1.729	33	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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. 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.

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

## Section 13. Disposal considerations

Ingredient	CAS #	Status	Reference number
Dibutyl phthalate; 1,2-Benzenedicarboxylic acid, dibutyl ester	84-74-2	Listed	U069

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN1993	UN1993	UN1993	UN1993	UN1993	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (isobutyl methacrylate)	FLAMMABLE LIQUID, N.O.S. (isobutyl methacrylate)	FLAMMABLE LIQUID, N.O.S. (isobutyl methacrylate)	FLAMMABLE LIQUID, N.O.S. (isobutyl methacrylate)	FLAMMABLE LIQUID, N.O.S. (isobutyl methacrylate)	FLAMMABLE LIQUID, N.O.S. (isobutyl methacrylate)
Transport hazard class(es)	3 	3  	3 	3  	3  	3 
Packing group	III	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	Yes.	No.
Additional information	This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.  <b>Reportable quantity</b> 118.34 lbs / 53.728 kg [15.77 gal / 59.698 L] Package sizes shipped in	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).  The marine pollutant mark is not required when transported by road or rail.	-	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.  <b>Special provisions</b> 640 (E)  <b>Tunnel code</b> (D/E)	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

## Section 14. Transport information

	quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.					
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**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) PAIR:** oxybenzone; MEHQ  
**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:** dibutyl phthalate  
**Clean Water Act (CWA) 311:** dibutyl phthalate

**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

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

#### Composition/information on ingredients

## Section 15. Regulatory information

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
isobutyl methacrylate	≥75 - ≤90	Yes.	No.	No.	Yes.	No.
dibutyl phthalate	≤10	No.	No.	No.	No.	Yes.
N,N-dimethyl-p-toluidine	≤4	Yes.	No.	No.	Yes.	Yes.

### SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	dibutyl phthalate	84-74-2	≤10
Supplier notification	dibutyl phthalate	84-74-2	≤10

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: DIBUTYL PHTHALATE
- New York** : The following components are listed: Di-n-butyl phthalate; 1,2-Benzenedicarboxylic acid, dibutyl ester
- New Jersey** : The following components are listed: DI-N-BUTYL PHTHALATE; 1, 2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER; ISOBUTYLMETHACRYLATE; 2-PROPENOIC ACID, 2-METHYL-, 2-METHYLPROPYL ESTER
- Pennsylvania** : The following components are listed: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER

### 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
dibutyl phthalate	No.	Yes.	No.	Yes.
N,N-dimethyl-p-toluidine	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):** All components are listed or exempted.
  - 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:** All components are listed or exempted.

- Chemical Weapons** : Not listed

### Convention List Schedule I Chemicals

- Chemical Weapons** : Not listed

### Convention List Schedule II Chemicals

## Section 15. Regulatory information

**Chemical Weapons** : Not listed  
**Convention List Schedule**  
**III Chemicals**

## Section 16. Other information

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

Health	*	2
Flammability		2
Physical hazards		2
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** : 8/1/2016  
**Date of issue/Date of revision** : 8/1/2016  
**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)  
 UN = United Nations

**References** : Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

## Section 16. Other information

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.