

# SAFETY DATA SHEETS

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

074306296

N/A

### Section 1. Identification

**GHS product identifier** : Rubber Base Adhesive

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

**Product type** : Liquid.

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

**Product use** : Dental product: Denture impression material.

**Area of application** : Professional applications.

**Manufacturer** : **Kerr Corporation**  
1717 West Collins Avenue  
Orange, CA 92867-5422  
Telephone no.: 1-800-KERR-123

**e-mail address of person responsible for this SDS** : Contact customer service at 1-800-KERR-123 for any questions

**Emergency telephone number (with hours of operation)** : CHEMTREC® (24 hours) U.S. : 1-800-424-9300 International: +1-703-527-3887

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Health effects are based on the uncured material.

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 2  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
TOXIC TO REPRODUCTION (Unborn child) - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs, heart, kidneys, liver, nervous system and reproductive organs) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 38%

**GHS label elements**

**Hazard pictograms** :



## Section 2. Hazards identification

- Signal word** : Danger
- Hazard statements** : Highly flammable liquid and vapor.  
Causes serious eye irritation.  
Causes skin irritation.  
Suspected of damaging the unborn child.  
May cause respiratory irritation.  
May cause drowsiness and dizziness.  
May cause damage to organs through prolonged or repeated exposure. (hearing organs, heart, kidneys, liver, nervous system, reproductive organs)
- 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. Wash hands thoroughly after handling.
- 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 you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation 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.
- Supplemental label elements** : Avoid contact with skin and clothing. Wash thoroughly after handling.
- Hazards not otherwise classified** : Defatting to the skin. Prolonged or repeated contact may dry skin and cause irritation.

## Section 3. Composition/information on ingredients

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

### CAS number/other identifiers

- CAS number** : Not applicable.
- Product code** : Not available.

| Ingredient name | Other names    | %     | CAS number |
|-----------------|----------------|-------|------------|
| acetone         | acetone        | 30-60 | 67-64-1    |
| toluene         | toluene        | 10-30 | 108-88-3   |
| butanone        | butanone       | 10-30 | 78-93-3    |
| zinc oxide      | zinc oxide     | 1-5   | 1314-13-2  |
| salicylic acid  | salicylic acid | 1-5   | 69-72-7    |

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

### Section 3. Composition/information on ingredients

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

### Section 4. First aid measures

#### Description of necessary first aid measures

- Eye contact** : No special measures are required. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Inhalation** : No special measures required. If inhaled, remove to fresh air. Get medical attention if symptoms occur.
- Skin contact** : No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. 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. Get medical attention if adverse health effects persist or are severe.

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

##### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : Can cause central nervous system (CNS) depression.

##### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- Inhalation** : Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
  - nausea or vomiting
  - headache
  - drowsiness/fatigue
  - dizziness/vertigo
  - unconsciousness
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
  - irritation
  - redness
  - dryness
  - cracking
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

## Section 4. First aid measures

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

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

- 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** : In case of major fire and large quantities: 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.

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** : Highly 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  
 metal oxide/oxides  
 Hydrocarbon.  
 Aldehyde. / Ketone.  
 Hydrogen cyanide (HCN).

- Special protective actions for fire-fighters** : In case of major fire and large quantities: 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** : Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely
- For emergency responders** : Low release. See also the information in "For non-emergency personnel".

- Environmental precautions** : Low release. 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** : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.
- Large spill** : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : No special measures are required for small quantities under normal and intended conditions of product use. For professional use only. Put on appropriate personal protective equipment (see Section 8). Handle with care and dispose in a safe manner.

- 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  |
|-----------------|--|
| acetone         | <p><b>ACGIH TLV (United States, 4/2014).</b><br/>           TWA: 500 ppm 8 hours.<br/>           TWA: 1188 mg/m<sup>3</sup> 8 hours.<br/>           STEL: 750 ppm 15 minutes.<br/>           STEL: 1782 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/>           TWA: 750 ppm 8 hours.<br/>           TWA: 1800 mg/m<sup>3</sup> 8 hours.<br/>           STEL: 1000 ppm 15 minutes.<br/>           STEL: 2400 mg/m<sup>3</sup> 15 minutes.</p> |

**Date of issue/Date of revision** : 06/10/2015 **Date of previous issue** : No previous validation **Version** : 1 5/17

## Section 8. Exposure controls/personal protection

toluene

**NIOSH REL (United States, 10/2013).**

TWA: 250 ppm 10 hours.

TWA: 590 mg/m<sup>3</sup> 10 hours.

**OSHA PEL (United States, 2/2013).**

TWA: 1000 ppm 8 hours.

TWA: 2400 mg/m<sup>3</sup> 8 hours.

**OSHA PEL 1989 (United States, 3/1989).**

TWA: 100 ppm 8 hours.

TWA: 375 mg/m<sup>3</sup> 8 hours.

STEL: 150 ppm 15 minutes.

STEL: 560 mg/m<sup>3</sup> 15 minutes.

**OSHA PEL Z2 (United States, 2/2013).**

TWA: 200 ppm 8 hours.

CEIL: 300 ppm

AMP: 500 ppm 10 minutes.

**NIOSH REL (United States, 10/2013).**

TWA: 100 ppm 10 hours.

TWA: 375 mg/m<sup>3</sup> 10 hours.

STEL: 150 ppm 15 minutes.

STEL: 560 mg/m<sup>3</sup> 15 minutes.

**ACGIH TLV (United States, 4/2014).**

TWA: 20 ppm 8 hours.

butanone

**OSHA PEL 1989 (United States, 3/1989).**

TWA: 200 ppm 8 hours.

TWA: 590 mg/m<sup>3</sup> 8 hours.

STEL: 300 ppm 15 minutes.

STEL: 885 mg/m<sup>3</sup> 15 minutes.

**ACGIH TLV (United States, 4/2014).**

TWA: 200 ppm 8 hours.

TWA: 590 mg/m<sup>3</sup> 8 hours.

STEL: 300 ppm 15 minutes.

STEL: 885 mg/m<sup>3</sup> 15 minutes.

**NIOSH REL (United States, 10/2013).**

TWA: 200 ppm 10 hours.

TWA: 590 mg/m<sup>3</sup> 10 hours.

STEL: 300 ppm 15 minutes.

STEL: 885 mg/m<sup>3</sup> 15 minutes.

**OSHA PEL (United States, 2/2013).**

TWA: 200 ppm 8 hours.

TWA: 590 mg/m<sup>3</sup> 8 hours.

zinc oxide

**NIOSH REL (United States, 10/2013).**

CEIL: 15 mg/m<sup>3</sup> Form: Dust

TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Dust and fumes

STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Fume

**OSHA PEL 1989 (United States, 3/1989).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Fume

STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Fume

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust

**OSHA PEL (United States, 2/2013).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Fume

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

## Section 8. Exposure controls/personal protection

TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**ACGIH TLV (United States, 4/2014).**  
 TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable  
 fraction  
 STEL: 10 mg/m<sup>3</sup> 15 minutes. Form:  
 Respirable fraction

- Appropriate engineering controls** : No special measures are required for small quantities under normal and intended conditions of product use.
- Environmental exposure controls** : No special measures are required for small quantities under normal and intended conditions of product use.

### Individual protection measures

- Hygiene measures** : No special measures are required for small quantities under normal and intended conditions of product use.
- 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** : No special measures are required for small quantities under normal and intended conditions of product use.
- 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** : No special measures are required for small quantities under normal and intended conditions of product use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Brown.
- Odor** : Organic solvents. Ketone.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 55.6°C (132.1°F)
- Flash point** : Closed cup: -18°C (-0.4°F)
- Evaporation rate** : 1.9 (n-Butane = 1)
- Flammability (solid, gas)** : Not applicable.



## Section 9. Physical and chemical properties

|   |  |
|---|--|
| <b>Lower and upper explosive (flammable) limits</b> | : Lower: 2.6%<br>Upper: 12.8%  |
| <b>Vapor pressure</b>                               | : 24 kPa (180 mm Hg) [room temperature]                                |
| <b>Vapor density</b>                                | : 2 [Air = 1]  |
| <b>Relative density</b>                             | : 0.86 to 0.89   |
| <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>Decomposition temperature</b>                    | : Not available.   |
| <b>SADT</b>   | : Not available.   |
| <b>Viscosity</b>                                    | : Dynamic (room temperature): 175 to 350 mPa·s (175 to 350 cP) at 25°C |
| <b>Density</b>                                      | : 0.86 to 0.89 g/cm <sup>3</sup>                                       |

## 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.<br><br>Under normal conditions of storage and use, hazardous polymerization 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>             | : Keep away from strong acids.<br>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

## Section 11. Toxicological information

| Product/ingredient name | Result                | Species | Dose                | Exposure |
|-------------------------|-----------------------|---------|---------------------|----------|
| acetone                 | LC50 Inhalation Vapor | Rat     | 76 mg/l             | 4 hours  |
|                         | LC50 Inhalation Vapor | Rat     | 30000 ppm           | 4 hours  |
|                         | LD50 Dermal           | Rabbit  | >15800 mg/kg        | -        |
|                         | LD50 Oral             | Rat     | 5800 mg/kg          | -        |
| toluene                 | LC50 Inhalation Vapor | Rat     | 49 g/m <sup>3</sup> | 4 hours  |
|                         | LC50 Inhalation Vapor | Rat     | 8000 ppm            | 4 hours  |
|                         | LD50 Dermal           | Rabbit  | 12400 mg/kg         | -        |
|                         | LD50 Dermal           | Rat     | 12000 mg/kg         | -        |
|                         | LD50 Oral             | Rat     | 636 mg/kg           | -        |
| butanone                | LC50 Inhalation Vapor | Rat     | 11243 ppm           | 4 hours  |
|                         | LD50 Dermal           | Rabbit  | 6480 mg/kg          | -        |
|                         | LD50 Oral             | Rat     | 2737 mg/kg          | -        |
| salicylic acid          | LD50 Oral             | Rat     | 891 mg/kg           | -        |

### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure                | Observation |
|-------------------------|--------------------------|---------|-------|-------------------------|-------------|
| acetone                 | Eyes - Mild irritant     | Rabbit  | -     | 10 microliters          | -           |
|                         | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 20 milligrams  | -           |
|                         | Eyes - Severe irritant   | Rabbit  | -     | 20 milligrams           | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 24 hours 500 milligrams | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 395 milligrams          | -           |
| toluene                 | Eyes - Severe irritant   | Rabbit  | -     | 24 hours 2 milligrams   | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 24 hours 20 milligrams  | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 500 milligrams          | -           |
| butanone                | Skin - Mild irritant     | Rabbit  | -     | 24 hours 14 milligrams  | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 24 hours 500 milligrams | -           |
| zinc oxide              | Eyes - Mild irritant     | Rabbit  | -     | 24 hours 500 milligrams | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 24 hours 500 milligrams | -           |

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| toluene                 | -    | 3    | -   |

### Reproductive toxicity

Date of issue/Date of revision : 06/10/2015 Date of previous issue : No previous validation Version : 1 9/17

## Section 11. Toxicological information

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

| Name               | Category                 | Route of exposure                  | Target organs  |
|--------------------|--------------------------|------------------------------------|--|
| acetone<br>toluene | Category 3<br>Category 3 | Not applicable.<br>Not applicable. | Narcotic effects<br>Respiratory tract irritation and<br>Narcotic effects |
| butanone           | Category 3               | Not applicable.                    | Respiratory tract irritation and<br>Narcotic effects                     |

### Specific target organ toxicity (repeated exposure)

| Name     | Category   | Route of exposure | Target organs   |
|----------|------------|-------------------|---|
| toluene  | Category 2 | Not determined    | hearing organs,<br>heart, kidneys, liver,<br>nervous system<br>and reproductive<br>organs |
| butanone | Category 2 | Not determined    | kidneys   |

### Aspiration hazard

| Name    | Result                         |
|---------|--------------------------------|
| toluene | ASPIRATION HAZARD - Category 1 |

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : Can cause central nervous system (CNS) depression.

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

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

## Section 11. Toxicological information

- Inhalation** : Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing  
 nausea or vomiting  
 headache  
 drowsiness/fatigue  
 dizziness/vertigo  
 unconsciousness  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness  
 dryness  
 cracking  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

### 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. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

| Route | ATE value    |
|-------|--------------|
| Oral  | 2451.2 mg/kg |

## Section 11. Toxicological information

## Section 12. Ecological information

### Toxicity

| Product/ingredient name            | Result                              | Species   | Exposure                                |
|------------------------------------|-------------------------------------|---|---|
| acetone                            | Acute EC50 20.565 mg/l Marine water | Algae - Ulva pertusa  | 96 hours                                |
|                                    | Acute LC50 6000000 µg/l Fresh water | Crustaceans - Gammarus pulex  | 48 hours                                |
|                                    | Acute LC50 10000 µg/l Fresh water   | Daphnia - Daphnia magna   | 48 hours                                |
|                                    | Acute LC50 5.54 ml/L Fresh water    | Fish - Oncorhynchus mykiss  | 96 hours                                |
|                                    | Chronic NOEC 4.95 mg/l Marine water | Algae - Ulva pertusa  | 96 hours                                |
|                                    | Chronic NOEC 0.016 ml/L Fresh water | Crustaceans - Daphniidae  | 21 days                                 |
|                                    | Chronic NOEC 0.1 ml/L Fresh water   | Daphnia - Daphnia magna - Neonate                                   | 21 days                                 |
|                                    | toluene                             | Acute EC50 12500 µg/l Fresh water                                   | Algae - Pseudokirchneriella subcapitata |
| Acute EC50 11600 µg/l Fresh water  |                                     | Crustaceans - Gammarus pseudolimnaeus - Adult                       | 48 hours                                |
| Acute EC50 6000 µg/l Fresh water   |                                     | Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours                                |
| Acute LC50 5500 µg/l Fresh water   |                                     | Fish - Oncorhynchus kisutch - Fry                                   | 96 hours                                |
| Chronic NOEC 1000 µg/l Fresh water |                                     | Daphnia - Daphnia magna   | 21 days                                 |
| butanone                           |                                     | Acute EC50 >500000 µg/l Marine water                                | Algae - Skeletonema costatum            |
|                                    | Acute EC50 5091000 µg/l Fresh water | Daphnia - Daphnia magna - Larvae                                    | 48 hours                                |
|                                    | zinc oxide                          | Acute LC50 3220000 µg/l Fresh water                                 | Fish - Pimephales promelas              |
| Acute IC50 1.85 mg/l Marine water  |                                     | Algae - Skeletonema costatum  | 96 hours                                |
| Acute IC50 46 µg/l Fresh water     |                                     | Algae - Pseudokirchneriella subcapitata - Exponential growth phase  | 72 hours                                |
| Acute LC50 98 µg/l Fresh water     |                                     | Daphnia - Daphnia magna - Neonate                                   | 48 hours                                |
| salicylic acid                     | Acute LC50 1.1 ppm Fresh water      | Fish - Oncorhynchus mykiss  | 96 hours                                |
|                                    | Acute LC50 111.7 mg/l Fresh water   | Daphnia - Daphnia magna - Neonate                                   | 48 hours                                |
|                                    | Chronic NOEC 5.6 mg/l Fresh water   | Daphnia - Daphnia magna - Neonate                                   | 21 days                                 |

### Persistence and degradability

| Product/ingredient name | Test  | Result           | Dose | Inoculum |
|-------------------------|---|------------------|------|----------|
| acetone                 | OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test | 90.9 % - 28 days | -    | -        |
| toluene                 | 301C Ready Biodegradability - Modified MITI Test (I)              | 100 % - 14 days  | -    | -        |

## Section 12. Ecological information

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| acetone                 | -                 | -          | Readily          |
| toluene                 | -                 | -          | Readily          |

### Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF   | Potential |
|-------------------------|--------------------|-------|-----------|
| acetone                 | -0.23              | -     | low       |
| toluene                 | 2.73               | 90    | low       |
| butanone                | 0.3                | -     | low       |
| zinc oxide              | -                  | 60960 | high      |
| salicylic acid          | 2.21 to 2.26       | -     | 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.

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

| Ingredient  | CAS #    | Status | Reference number |
|---|----------|--------|------------------|
| Acetone (I); 2-Propanone (I)                      | 67-64-1  | Listed | U002             |
| Methyl ethyl ketone (MEK) (I,T); 2-Butanone (I,T) | 78-93-3  | Listed | U159             |
| Toluene; Benzene, methyl-                         | 108-88-3 | Listed | U220             |

## Section 14. Transport information

|                            | DOT Classification   | IMDG   | IATA   |
|----------------------------|--|--|--|
| UN number                  | UN1133   | UN1133   | UN1133   |
| UN proper shipping name    | Adhesives RQ (toluene, acetone)  | ADHESIVES. Marine pollutant (zinc oxide)   | Adhesives  |
| Transport hazard class(es) | 3<br> | 3<br>  | 3<br> |
| Packing group              | II   | II   | II   |
| Environmental hazards      | No.  | Yes.   | No.  |

Date of issue/Date of revision : 06/10/2015 Date of previous issue : No previous validation Version : 1 13/17

## Section 14. Transport information

|                                      |  |   |   |
|--------------------------------------|--|---|---|
| <p><b>Additional information</b></p> | <p><b>Reportable quantity</b><br/>6666.7 lbs / 3026.7 kg [913.78 gal / 3459 L]<br/>Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.</p> <p><b>Limited quantity</b><br/>Yes.</p> <p><b>Packaging instruction</b><br/><b>Passenger aircraft</b><br/>Quantity limitation: 5 L</p> <p><b>Cargo aircraft</b><br/>Quantity limitation: 60 L</p> <p><b>Special provisions</b><br/>149, B52, IB2, T4, TP1, TP8</p> | <p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p><b>Emergency schedules (EmS)</b><br/>F-E, S-D</p> | <p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p> <p><b>Passenger and Cargo Aircraft</b><br/>Quantity limitation: 5 L<br/>Packaging instructions: 353<br/><b>Cargo Aircraft Only</b>Quantity limitation: 60 L<br/>Packaging instructions: 364<br/><b>Limited Quantities - Passenger Aircraft</b>Quantity limitation: 1 L<br/>Packaging instructions: Y341</p> <p><b>Special provisions</b><br/>A3</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 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **United States inventory (TSCA 8b):** All components are listed or exempted.  
**Clean Water Act (CWA) 307:** toluene; zinc oxide  
**Clean Water Act (CWA) 311:** toluene

**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)** : Listed

**SARA 302/304**

[Composition/information on ingredients](#)

## Section 15. Regulatory information

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 |
|----------------|-------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| acetone        | 30-60 | Yes.        | No.                        | No.      | Yes.                            | No.                             |
| toluene        | 10-30 | Yes.        | No.                        | No.      | Yes.                            | Yes.                            |
| butanone       | 10-30 | Yes.        | No.                        | No.      | Yes.                            | Yes.                            |
| zinc oxide     | 1-5   | No.         | No.                        | No.      | Yes.                            | No.                             |
| salicylic acid | 1-5   | Yes.        | No.                        | No.      | Yes.                            | Yes.                            |

### SARA 313

|  | Product name          | CAS number            | %            |
|--|-----------------------|-----------------------|--------------|
| <b>Form R - Reporting requirements</b> | toluene<br>zinc oxide | 108-88-3<br>1314-13-2 | 10-30<br>1-5 |
| <b>Supplier notification</b>           | toluene<br>zinc oxide | 108-88-3<br>1314-13-2 | 10-30<br>1-5 |

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: ACETONE; METHYL ETHYL KETONE (MEK); TOLUENE; ZINC OXIDE FUME
- New York** : The following components are listed: Acetone; 2-Propanone; Methyl ethyl ketone; 2-Butanone; Toluene
- New Jersey** : The following components are listed: ACETONE; 2-PROPANONE; METHYL ETHYL KETONE; 2-BUTANONE; TOLUENE; BENZENE, METHYL-; ZINC OXIDE
- Pennsylvania** : The following components are listed: 2-PROPANONE; 2-BUTANONE; BENZENE, METHYL-; ZINC OXIDE (ZNO)

### California Prop. 65

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

| Ingredient name | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level                      |
|-----------------|--------|--------------|---------------------------|--|
| toluene         | No.    | Yes.         | No.                       | 7000 µg/day (ingestion)<br>13000 µg/day (inhalation) |



## Section 16. Other information

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

|                  |   |   |
|------------------|---|---|
| Health           | * | 2 |
| Flammability     |   | 3 |
| Physical hazards |   | 0 |
|                  |   |   |

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

|                                       |  |
|---------------------------------------|--|
| <b>Date of issue/Date of revision</b> | : 06/10/2015   |
| <b>Date of previous issue</b>         | : No previous validation   |
| <b>Version</b>                        | : 1  |
| <b>Key to abbreviations</b>           | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>UN = United Nations |
| <b>References</b>                     | : HCS (U.S.A.)- Hazard Communication Standard<br>International transport regulations   |

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.