



# Material Safety Data Sheet

## VOLVO ANAEROBIC SEALANT PRIMER

### 1. Product and company identification

|                                    |  |
|------------------------------------|--|
| <b>Material uses</b>               | : Industrial applications: Primers; Adhesives.   |
| <b>Manufacturer</b>                | : Chemtool Incorporated<br>801 West Rockton Road<br>Rockton, IL 61072 U.S.A.<br>Tel: +01 815.957.4140<br>Fax: +01 815.624.0292 |
| <b>Product code</b>                | : RMC8403105   |
| <b>MSDS #</b>                      | : 2107   |
| <b>Validation date</b>             | : 9/25/2013.   |
| <b><u>In case of emergency</u></b> | : INFOTRAC<br>U.S. and Canada - 800.535.5053<br>Outside the U.S. and Canada - +01 352.323.3500                                 |

### 2. Hazards identification

#### Emergency overview

|  |  |
|--|--|
| <b>Physical state</b>                        | : Liquid [Aerosol.]  |
| <b>Color</b>                                 | : Green.   |
| <b>Odor</b>                                  | : Solvent.   |
| <b>Signal word</b>                           | : DANGER!  |
| <b>Hazard statements</b>                     | : EXTREMELY FLAMMABLE AEROSOL. CAUSES EYE IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE SKIN IRRITATION.  |
| <b>Precautionary measures</b>                | : Do not breathe vapor or mist. Do not ingest. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Wash thoroughly after handling. |
| <b>OSHA/HCS status</b>                       | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  |
| <b>Routes of entry</b>                       | : Dermal contact. Eye contact. Inhalation. Ingestion.  |
| <b><u>Potential acute health effects</u></b> |  |
| <b>Inhalation</b>                            | : No known significant effects or critical hazards.  |
| <b>Ingestion</b>                             | : Harmful if swallowed.  |

## 2. Hazards identification

**Skin** : Slightly irritating to the skin. Repeated exposure may cause skin dryness or cracking.

**Eyes** : Severely irritating to eyes. Risk of serious damage to eyes.

### Potential chronic health effects

**Chronic effects** : Contains material that may cause target organ damage, based on animal data.

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

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

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

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

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

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

### Over-exposure signs/symptoms

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Ingestion** : No specific data.

**Skin** : Adverse symptoms may include the following:  
irritation  
redness

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

**Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

## 3. Composition/information on ingredients

### United States

| Name                           | CAS number | %     |
|--------------------------------|------------|-------|
| acetone                        | 67-64-1    | 70-98 |
| Carbon dioxide                 | 124-38-9   | 5-10  |
| Naphthenic acids, copper salts | 1338-02-9  | 1-5   |

### Canada

| Name                           | CAS number | %     |
|--------------------------------|------------|-------|
| acetone                        | 67-64-1    | 70-98 |
| Carbon dioxide                 | 124-38-9   | 5-10  |
| Naphthenic acids, copper salts | 1338-02-9  | 1-5   |

### Mexico

#### Classification

| Name | CAS number | UN number | % | IDLH | H | F | R | Special |
|------|------------|-----------|---|------|---|---|---|---------|
|      |            |           |   |      |   |   |   |         |

### 3. Composition/information on ingredients

|                                |           |        |       |           |   |   |   |   |
|--------------------------------|-----------|--------|-------|-----------|---|---|---|---|
| acetone                        | 67-64-1   | UN1993 | 70-98 | 2500 ppm  | 2 | 3 | 0 | - |
| Naphthenic acids, copper salts | 1338-02-9 | UN1993 | 1-5   | -         | 1 | 2 | 0 | - |
| Carbon dioxide                 | 124-38-9  | UN1956 | 5-10  | 40000 ppm | 0 | 0 | 0 | - |

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.

### 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### 5. Fire-fighting measures

- Flammability of the product** : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : 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.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide
- 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.

## 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- 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 for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). 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. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 non-sparking tools. Empty containers retain product residue and can be hazardous.
- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

### United States

| Ingredient     | Exposure limits   |
|----------------|---|
| acetone        | <p><b>ACGIH TLV (United States, 3/2012).</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> <p><b>NIOSH REL (United States, 1/2013).</b><br/>           TWA: 250 ppm 10 hours.<br/>           TWA: 590 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 6/2010).</b><br/>           TWA: 1000 ppm 8 hours.<br/>           TWA: 2400 mg/m<sup>3</sup> 8 hours.</p>   |
| Carbon dioxide | <p><b>ACGIH TLV (United States, 1/2011).</b><br/>           TWA: 5000 ppm 8 hours.<br/>           TWA: 9000 mg/m<sup>3</sup> 8 hours.<br/>           STEL: 30000 ppm 15 minutes.<br/>           STEL: 54000 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/>           TWA: 10000 ppm 8 hours.<br/>           TWA: 18000 mg/m<sup>3</sup> 8 hours.<br/>           STEL: 30000 ppm 15 minutes.<br/>           STEL: 54000 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 6/2009).</b><br/>           TWA: 5000 ppm 10 hours.<br/>           TWA: 9000 mg/m<sup>3</sup> 10 hours.<br/>           STEL: 30000 ppm 15 minutes.<br/>           STEL: 54000 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 6/2010).</b><br/>           TWA: 5000 ppm 8 hours.<br/>           TWA: 9000 mg/m<sup>3</sup> 8 hours.</p> |

### Canada

| Occupational exposure limits |                 | TWA (8 hours) |                   |       | STEL (15 mins) |                   |       | Ceiling |                   |       | Notations |
|------------------------------|-----------------|---------------|-------------------|-------|----------------|-------------------|-------|---------|-------------------|-------|-----------|
| Ingredient                   | List name       | ppm           | mg/m <sup>3</sup> | Other | ppm            | mg/m <sup>3</sup> | Other | ppm     | mg/m <sup>3</sup> | Other |           |
| acetone                      | US ACGIH 3/2012 | 500           | 1188              | -     | 750            | 1782              | -     | -       | -                 | -     |           |
|                              | AB 4/2009       | 500           | 1200              | -     | 750            | 1800              | -     | -       | -                 | -     |           |
|                              | BC 4/2012       | 250           | -                 | -     | 500            | -                 | -     | -       | -                 | -     |           |
|                              | ON 1/2013       | 500           | 1188              | -     | 750            | 1782              | -     | -       | -                 | -     |           |
|                              | QC 12/2012      | 500           | 1190              | -     | 1000           | 2380              | -     | -       | -                 | -     |           |
| Carbon dioxide               | US ACGIH 1/2011 | 5000          | 9000              | -     | 30000          | 54000             | -     | -       | -                 | -     |           |
|                              | AB 4/2009       | 5000          | 9000              | -     | 30000          | 54000             | -     | -       | -                 | -     |           |
|                              | BC 9/2011       | 5000          | -                 | -     | 15000          | -                 | -     | -       | -                 | -     |           |
|                              | ON 7/2010       | 5000          | 9000              | -     | 30000          | 54000             | -     | -       | -                 | -     |           |
|                              | QC 9/2011       | 5000          | 9000              | -     | 30000          | 54000             | -     | -       | -                 | -     |           |

## 8. Exposure controls/personal protection

### Mexico

#### Occupational exposure limits

| Ingredient     | Exposure limits   |
|----------------|---|
| acetone        | <b>NOM-010-STPS (Mexico, 9/2000).</b><br>LMPE-PPT: 1000 ppm 8 hours.<br>LMPE-PPT: 2400 mg/m <sup>3</sup> 8 hours.<br>LMPE-CT: 3000 mg/m <sup>3</sup> 15 minutes.<br>LMPE-CT: 1260 ppm 15 minutes.   |
| Carbon dioxide | <b>NOM-010-STPS (Mexico, 9/2000).</b><br>LMPE-PPT: 5000 ppm 8 hours.<br>LMPE-PPT: 9000 mg/m <sup>3</sup> 8 hours.<br>LMPE-CT: 27000 mg/m <sup>3</sup> 15 minutes.<br>LMPE-CT: 15000 ppm 15 minutes. |

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Engineering measures** : 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.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : 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.
- Eyes** : 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 or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

## 8. Exposure controls/personal protection

- Skin** : 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.
- 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.

## 9. Physical and chemical properties

- Physical state** : Liquid [Aerosol.]
- Flash point** : Closed cup: -17.8°C (-0.04°F) [Setaflash.]
- Auto-ignition temperature** : Not available.
- Flammable limits** : Not available.
- Color** : Green.
- Odor** : Solvent.
- pH** : Not applicable.
- Boiling/condensation point** : 56.1°C (133°F)
- Melting/freezing point** : Not available.
- Density** : 0.8 g/cm<sup>3</sup>
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Volatility** : Not available.
- Evaporation rate** : Not available.
- Viscosity** : Not available.
- Dispersibility properties** : Not available.
- Solubility** : Easily soluble in the following materials: cold water.
- Aerosol product**
- Type of aerosol** : Spray
- Heat of combustion** : 24.77 kJ/g

## 10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### United States

#### Acute toxicity

| Product/ingredient name | Result    | Species | Dose       | Exposure |
|-------------------------|-----------|---------|------------|----------|
| acetone                 | LD50 Oral | Rat     | 5800 mg/kg | -        |

**Conclusion/Summary** : May be harmful if swallowed.

#### Chronic toxicity

**Conclusion/Summary** : Contains material that may cause target organ damage, based on animal data.

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure                 | Observation |
|-------------------------|--------------------------|---------|-------|--------------------------|-------------|
| acetone                 | Eyes - Mild irritant     | Human   | -     | 186300 parts per million | -           |
|                         | 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           | -           |

#### Conclusion/Summary

- Skin** : Causes skin irritation. Repeated exposure may cause skin dryness or cracking.
- Eyes** : Causes eye irritation.
- Respiratory** : Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

#### Sensitizer

#### Conclusion/Summary

- Skin** : No specific information is available in our database regarding the skin sensitizing properties of this product. Sensitization not suspected for humans.
- Respiratory** : Sensitization not suspected for humans.

#### Carcinogenicity

#### Conclusion/Summary

- : There are no data available on the mixture itself. Carcinogenicity not suspected for humans.

#### Classification

| Product/ingredient name | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|-------------------------|-------|------|-----|-------|-----|------|
| acetone                 | A4    | -    | -   | -     | -   | -    |

#### Mutagenicity

#### Conclusion/Summary

- : There are no data available on the mixture itself. Mutagenicity not suspected for humans.

#### Teratogenicity

#### Conclusion/Summary

- : There are no data available on the mixture itself. Teratogenicity not suspected for humans.

#### Reproductive toxicity

#### Conclusion/Summary

- : There are no data available on the mixture itself. Not considered to be dangerous to humans, according to our database.



## 11. Toxicological information

### Canada

#### Acute toxicity

| Product/ingredient name        | Result    | Species | Dose       | Exposure |
|--------------------------------|-----------|---------|------------|----------|
| acetone                        | LD50 Oral | Rat     | 5800 mg/kg | -        |
| Naphthenic acids, copper salts | LD50 Oral | Rat     | 2 g/kg     | -        |

**Conclusion/Summary** : May be harmful if swallowed.

#### Chronic toxicity

**Conclusion/Summary** : Contains material that may cause target organ damage, based on animal data.

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure                 | Observation |
|-------------------------|--------------------------|---------|-------|--------------------------|-------------|
| acetone                 | Eyes - Mild irritant     | Human   | -     | 186300 parts per million | -           |
|                         | 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           | -           |

#### Conclusion/Summary

- Skin** : Causes skin irritation. Repeated exposure may cause skin dryness or cracking.
- Eyes** : Causes eye irritation.
- Respiratory** : Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

#### Sensitizer

#### Conclusion/Summary

- Skin** : No specific information is available in our database regarding the skin sensitizing properties of this product. Sensitization not suspected for humans.
- Respiratory** : Sensitization not suspected for humans.

#### Carcinogenicity

#### Conclusion/Summary

: There are no data available on the mixture itself. Carcinogenicity not suspected for humans.

#### Classification

| Product/ingredient name | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|-------------------------|-------|------|-----|-------|-----|------|
| acetone                 | A4    | -    | -   | -     | -   | -    |

#### Mutagenicity

#### Conclusion/Summary

: There are no data available on the mixture itself. Mutagenicity not suspected for humans.

#### Teratogenicity

#### Conclusion/Summary

: There are no data available on the mixture itself. Teratogenicity not suspected for humans.

#### Reproductive toxicity

## 11. Toxicological information

**Conclusion/Summary** : There are no data available on the mixture itself. Not considered to be dangerous to humans, according to our database.

### Mexico

#### Acute toxicity

| Product/ingredient name        | Result    | Species | Dose       | Exposure |
|--------------------------------|-----------|---------|------------|----------|
| acetone                        | LD50 Oral | Rat     | 5800 mg/kg | -        |
| Naphthenic acids, copper salts | LD50 Oral | Rat     | 2 g/kg     | -        |

**Conclusion/Summary** : May be harmful if swallowed.

#### Chronic toxicity

**Conclusion/Summary** : Contains material that may cause target organ damage, based on animal data.

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Score  | Score | Exposure                 | Observation |
|-------------------------|--------------------------|--------|-------|--------------------------|-------------|
| acetone                 | Eyes - Mild irritant     | Human  | -     | 186300 parts per million | -           |
|                         | 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           | -           |

#### Conclusion/Summary

**Skin** : Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

**Eyes** : Causes eye irritation.

**Respiratory** : Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

#### Sensitizer

##### Conclusion/Summary

**Skin** : No specific information is available in our database regarding the skin sensitizing properties of this product. Sensitization not suspected for humans.

**Respiratory** : Sensitization not suspected for humans.

#### Carcinogenicity

**Conclusion/Summary** : There are no data available on the mixture itself. Carcinogenicity not suspected for humans.

#### Classification

| Product/ingredient name | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|-------------------------|-------|------|-----|-------|-----|------|
| acetone                 | A4    | -    | -   | -     | -   | -    |

#### Mutagenicity

**Conclusion/Summary** : There are no data available on the mixture itself. Mutagenicity not suspected for humans.

#### Teratogenicity

**Conclusion/Summary** : There are no data available on the mixture itself. Teratogenicity not suspected for humans.

## 11. Toxicological information

### Reproductive toxicity

**Conclusion/Summary** : There are no data available on the mixture itself. Not considered to be dangerous to humans, according to our database.

## 12. Ecological information

**Ecotoxicity** : Readily biodegradable

### United States

#### Aquatic ecotoxicity

| 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 100 mg/l Fresh water     | Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) | 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  |

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

### Persistence/degradability

**Conclusion/Summary** : This product has not been tested for biodegradation. Expected to be biodegradable.

### Canada

#### Aquatic ecotoxicity

| 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 100 mg/l Fresh water     | Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) | 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                               |
|                                   | Naphthenic acids, copper salts      | Acute LC50 3300 to 10000 µg/l Marine water                             | Crustaceans - Crangon crangon - Adult |
| Acute LC50 0.044 mg/l Fresh water |                                     | Daphnia - Daphnia magna - Neonate                                      | 48 hours                              |
| Acute LC50 0.161 ppm Fresh water  |                                     | Fish - Oncorhynchus mykiss   | 96 hours                              |

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

### Persistence/degradability

**Conclusion/Summary** : This product has not been tested for biodegradation. Expected to be biodegradable.

### Mexico

#### Aquatic ecotoxicity

## 12. Ecological information

| 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 100 mg/l Fresh water            | Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| Naphthenic acids, copper salts | 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  |
|                                | Acute LC50 3300 to 10000 µg/l Marine water | Crustaceans - Crangon crangon - Adult                                  | 48 hours |
|                                | Acute LC50 0.044 mg/l Fresh water          | Daphnia - Daphnia magna - Neonate                                      | 48 hours |
|                                | Acute LC50 0.161 ppm Fresh water           | Fish - Oncorhynchus mykiss   | 96 hours |

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

**Persistence/degradability**

**Conclusion/Summary** : This product has not been tested for biodegradation. Expected to be biodegradable.

## 13. Disposal considerations

**Waste disposal** : 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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

**RCRA classification** : D001






Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.




## 14. Transport information

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|------------------------|-----------|----------------------|---------|-----|-------|------------------------|
|                        |           |                      |         |     |       |                        |

## 14. Transport information

|                              |        |                          |     |   |  |   |
|------------------------------|--------|--------------------------|-----|---|--|---|
| <b>DOT Classification</b>    | UN1950 | Aerosols RQ<br>(acetone) | 2.1 | - |   | <p><b>Reportable quantity</b><br/>5952.4 lbs / 2702.4 kg<br/>[892.37 gal / 3378 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>Packaging instruction</b><br/><b>Passenger aircraft</b><br/>Quantity limitation: 75 kg</p> <p><b>Cargo aircraft</b><br/>Quantity limitation: 150 kg</p> <p><b>Special provisions</b><br/>153, N82</p> |
| <b>TDG Classification</b>    | UN1950 | AEROSOLS                 | 2.1 | - |    | <p><b>Explosive Limit and Limited Quantity Index</b><br/>1</p> <p><b>Passenger Carrying Road or Rail Index</b><br/>75</p>   |
| <b>Mexico Classification</b> | UN1950 | AEROSOLS                 | 2.1 | - |   | <p><b>Special provisions</b><br/>63, 190, 277</p>   |
| <b>ADR/RID Class</b>         | UN1950 | AEROSOLS                 | 2   | - | <br> | <p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p><b>Limited quantity</b><br/>1 L</p> <p><b>Special provisions</b><br/>190 327 625 344</p> <p><b>Tunnel code</b><br/>(D)</p>   |
|                              |        |                          |     |   |  |   |

## 14. Transport information

|                       |        |   |     |   |  |   |
|-----------------------|--------|---|-----|---|--|---|
| <b>IMDG Class</b>     | UN1950 | AEROSOLS. Marine pollutant (Naphthenic acids, copper salts) | 2.1 | - | <br> | <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-D, S-U</p> <p><b>Special provisions</b><br/>63, 190, 277, 327, 959, 344</p>  |
| <b>IATA-DGR Class</b> | UN1950 | Aerosols, flammable   | 2.1 | - |   | <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: 75 kg<br/>Packaging instructions: 203</p> <p><b>Cargo Aircraft Only</b><br/>Quantity limitation: 150 kg<br/>Packaging instructions: 203</p> <p><b>Limited Quantities - Passenger Aircraft</b><br/>Quantity limitation: 30 kg<br/>Packaging instructions: Y203</p> <p><b>Special provisions</b><br/>A145, A167</p> |

PG\* : Packing group

## 15. Regulatory information

### United States

**HCS Classification** : Flammable aerosol  
Irritating material  
Target organ effects

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

**United States inventory (TSCA 8b)**: All components are listed or exempted.

**SARA 302/304**: No products were found.

**SARA 311/312 Hazards identification**: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

## 15. Regulatory information

**Clean Water Act (CWA) 307:** Naphthenic acids, copper salts

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not 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 313

|  | Product name                     | CAS number | Concentration |
|--|----------------------------------|------------|---------------|
| <b>Form R - Reporting requirements</b> | : Naphthenic acids, copper salts | 1338-02-9  | 1-5           |
| <b>Supplier notification</b>           | : Naphthenic acids, copper salts | 1338-02-9  | 1-5           |

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

### State regulations

|   |  |
|---|--|
| <b>Connecticut Carcinogen Reporting</b>                     | : None of the components are listed.   |
| <b>Connecticut Hazardous Material Survey</b>                | : None of the components are listed.   |
| <b>Florida substances</b>                                   | : None of the components are listed.   |
| <b>Illinois Chemical Safety Act</b>                         | : None of the components are listed.   |
| <b>Illinois Toxic Substances Disclosure to Employee Act</b> | : None of the components are listed.   |
| <b>Louisiana Reporting</b>                                  | : None of the components are listed.   |
| <b>Louisiana Spill</b>                                      | : None of the components are listed.   |
| <b>Massachusetts Spill</b>                                  | : None of the components are listed.   |
| <b>Massachusetts Substances</b>                             | : The following components are listed: ACETONE; CARBON DIOXIDE   |
| <b>Michigan Critical Material</b>                           | : None of the components are listed.   |
| <b>Minnesota Hazardous Substances</b>                       | : None of the components are listed.   |
| <b>New Jersey Spill</b>                                     | : None of the components are listed.   |
| <b>New Jersey Toxic Catastrophe Prevention Act</b>          | : None of the components are listed.   |
| <b>New Jersey Hazardous Substances</b>                      | : The following components are listed: ACETONE; 2-PROPANONE; CARBON DIOXIDE; CARBONIC ACID GAS; COPPER compounds |
| <b>New York Acutely Hazardous Substances</b>                | : The following components are listed: Acetone; 2-Propanone  |
| <b>New York Toxic Chemical Release Reporting</b>            | : None of the components are listed.   |
| <b>Pennsylvania RTK Hazardous Substances</b>                | : The following components are listed: 2-PROPANONE; CARBON DIOXIDE; COPPER COMPOUNDS                             |

## 15. Regulatory information

**Rhode Island Hazardous Substances** : None of the components are listed.

### California Prop. 65

None of the components are listed.

**United States inventory (TSCA 8b)** : All components are listed or exempted.

### Canada

**WHMIS (Canada)** : Class B-2: Flammable liquid  
Class B-5: Flammable aerosol.  
Class D-2B: Material causing other toxic effects (Toxic).

### Canadian lists

**Canadian NPRI** : The following components are listed: Volatile organic compounds; Copper (and its compounds)

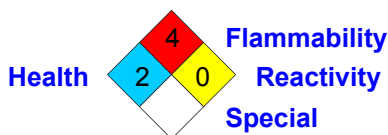
**CEPA Toxic substances** : The following components are listed: Volatile organic compounds; Carbon dioxide

**Canada inventory; DSL/ NDSL** : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### Mexico

**Classification** :



### International regulations

**International lists** :

- Australia inventory (AICS)**: All components are listed or exempted.
- China inventory (IECSC)**: All components are listed or exempted.
- Japan inventory**: All components are listed or exempted.
- 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 inventory (CSNN)**: Not determined.
- Europe inventory** : All components are listed or exempted.

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

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

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



## 16. Other information

**Label requirements** : EXTREMELY FLAMMABLE AEROSOL. CAUSES EYE IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE SKIN IRRITATION.

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

|                  |   |   |
|------------------|---|---|
| Health           | * | 2 |
| Flammability     |   | 4 |
| Physical hazards |   | 0 |
|                  |   | G |

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 MSDSs 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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**Prepared by** : Regulatory Department, Chemtool Inc.

▣ Indicates information that has changed from previously issued version.

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