SAFETY DATA SHEET

1. Identification

Product identifier: ZRC and Galvilite Cold Galvanizing Compounds - Aerosol

Other means of identification

- Product number: 10000, 20010

Recommended use: Corrosion protection of iron and steel.

Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Supplier/Manufacturer: ZRC Worldwide

Address: 145 Enterprise Drive, Marshfield, MA 02050

Telephone: 781-319-0400

Emergency telephone (CHEMTREC): 703-527-3887 CCN15781

Email: info@zrcworldwide.com

2. Hazard(s) identification

Physical hazards: Flammable aerosols

Gases under pressure: Liquefied gas

Health hazards:

- Serious eye damage/eye irritation: Category 2
- Specific target organ toxicity, single exposure: Category 3 narcotic effects
- Specific target organ toxicity, repeated exposure: Category 1 (central nervous system)

Environmental hazards:

- Hazardous to the aquatic environment, acute hazard: Category 1
- Hazardous to the aquatic environment, long-term hazard: Category 1

OSHA defined hazards: Combustible dust

Label elements

Signal word: Danger

Hazard statement: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. May cause drowsiness or dizziness. Causes damage to organs (central nervous system) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention: Keep away from heat/sparks/open flames/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. Do not breathe mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear eye protection/face protection.

Response: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. 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 advice/attention. Collect spillage.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Mixtures</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc</td>
<td>7440-66-6</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>15 - 25</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>5 - 15</td>
</tr>
<tr>
<td>Methyl ethyl ketone</td>
<td>78-93-3</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Stoddard solvent</td>
<td>8052-41-3</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>3 - 8</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>≤ 2</td>
</tr>
</tbody>
</table>

Composition comments All concentrations are in percent by weight unless otherwise indicated.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth thoroughly.


Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed such as: Carbon oxides. Chlorine compounds. Fluorine compounds. Fumes of metal oxides.

Special protective equipment and precautions for firefighters Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting equipment/instructions In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. Fight fire from protected location or safe distance. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Extremely flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame.
6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

In the event of a leak evacuate all personnel until ventilation can restore oxygen concentrations to safe levels. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors/spray. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Stop leak if you can do so without risk. Move aerosol cans to a safe and open place. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains.

Pick up undamaged aerosol cans mechanically. Dike leaked material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Scoop up used absorbent into drums or other appropriate container. Following product recovery, flush area with water. Retain and dispose of contaminated wash water.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Explosion-proof general and local exhaust ventilation. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded.

Do not breathe mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Keep away from heat, sparks and open flame. Keep containers tightly closed in a dry, cool and well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>2400 mg/m³</td>
<td>PEL</td>
</tr>
<tr>
<td></td>
<td>1000 ppm</td>
<td></td>
</tr>
<tr>
<td>Methyl ethyl ketone (CAS 78-93-3)</td>
<td>590 mg/m³</td>
<td>PEL</td>
</tr>
<tr>
<td></td>
<td>200 ppm</td>
<td></td>
</tr>
<tr>
<td>Propane (CAS 74-98-6)</td>
<td>1800 mg/m³</td>
<td>PEL</td>
</tr>
<tr>
<td></td>
<td>1000 ppm</td>
<td></td>
</tr>
<tr>
<td>Stoddard solvent (CAS 8052-41-3)</td>
<td>2900 mg/m³</td>
<td>PEL</td>
</tr>
<tr>
<td></td>
<td>500 ppm</td>
<td></td>
</tr>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td>5 mg/m³ Fume.</td>
<td>PEL</td>
</tr>
<tr>
<td></td>
<td>15 mg/m³ Total dust.</td>
<td></td>
</tr>
</tbody>
</table>
### US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>STEL</td>
<td>500 ppm</td>
</tr>
<tr>
<td>Butane (CAS 106-97-8)</td>
<td>STEL</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Methyl ethyl ketone (CAS 78-93-3)</td>
<td>STEL</td>
<td>300 ppm</td>
</tr>
<tr>
<td>Stoddard solvent (CAS 8052-41-3)</td>
<td>TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td>STEL</td>
<td>10 mg/m³ Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>2 mg/m³ Respirable fraction.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>TWA</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Butane (CAS 106-97-8)</td>
<td>TWA</td>
<td>800 ppm</td>
</tr>
<tr>
<td>Methyl ethyl ketone (CAS 78-93-3)</td>
<td>STEL</td>
<td>300 ppm</td>
</tr>
<tr>
<td>Stoddard solvent (CAS 8052-41-3)</td>
<td>TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td>Propane (CAS 74-98-6)</td>
<td>TWA</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Stoddard solvent (CAS 8052-41-3)</td>
<td>Ceiling</td>
<td>1800 mg/m³</td>
</tr>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td>Ceiling</td>
<td>15 mg/m³ Dust.</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>10 mg/m³ Fume.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>5 mg/m³ Fume.</td>
</tr>
</tbody>
</table>

### Biological limit values

<table>
<thead>
<tr>
<th>ACGIH Biological Exposure Indices</th>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>25 mg/l</td>
<td>Acetone</td>
<td>Urine</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Methyl ethyl ketone (CAS 78-93-3)</td>
<td>2 mg/l</td>
<td>MEK</td>
<td>Urine</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

### Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Provide easy access to water supply and eye wash facilities.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

**Hand protection**

Wear appropriate chemical resistant gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Nitrile or neoprene gloves are recommended. Other suitable gloves can be recommended by the glove supplier.

**Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Check with respiratory protective equipment suppliers.

Wear appropriate thermal protective clothing, when necessary.

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

**Appearance**

- **Physical state**: Liquid.
- **Form**: Aerosol - Pressurized liquid (spray).
- **Color**: Gray.
- **Odor**: Hydrocarbon.
- **Odor threshold**: Not available.
- **pH**: Not available.
- **Melting point/freezing point**: Not available.
- **Initial boiling point and boiling range**: 395.6 °F (202 °C)
- **Flash point**: < 19.4 °F (< -7.0 °C) Tag Open Cup
- **Evaporation rate**: > 1 BuAc (n-Butyl acetate=1)
- **Flammability (solid, gas)**: Not available.
- **Upper/lower flammability or explosive limits**
  - Flammability limit - lower (%): 1.1
  - Flammability limit - upper (%): 12.8
- **Vapor pressure**: 50 mm Hg (21°C / 70°F)
- **Vapor density**: > 1 (Air=1) (24°C / 77°F)
- **Relative density**: 1.2 (H2O=1)
- **Solubility(ies)**
  - Solubility (water): Slightly soluble in water.
- **Partition coefficient (n-octanol/water)**: Not available.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Viscosity**: Not available.
- **Other information**
  - Bulk density: 10.01 lb/gal
  - Explosive properties: Not explosive.
  - Oxidizing properties: Not oxidizing.
  - VOC: < 30 %

10. Stability and reactivity

**Reactivity**: The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability**: Material is stable under normal conditions.

**Possibility of hazardous reactions**: No dangerous reaction known under conditions of normal use.

**Conditions to avoid**: Contents under pressure. Do not puncture. Keep away from heat, sparks and open flame. In a fire or if heated, a pressure increase will occur and the container may burst or explode. Avoid temperatures exceeding the flash point. Protect against direct sunlight. Contact with incompatible materials.

Decomposition is not expected under normal conditions of use and storage. Fire or high temperatures create: Carbon oxides. Fumes of metal oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation
May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.

Skin contact
Causes mild skin irritation. May be absorbed through the skin.

Eye contact
Causes serious eye irritation.

Ingestion
May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity
Not expected to be acutely toxic.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>&gt; 15700 mg/kg, 24 Hours</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vapor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>76 mg/l, 4 Hours</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>5800 mg/kg</td>
</tr>
<tr>
<td>Butane (CAS 106-97-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>658 mg/l, 4 Hours</td>
</tr>
<tr>
<td>Methyl ethyl ketone (CAS 78-93-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>6400 mg/kg</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vapor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>34.5 mg/l, 4 Hours</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>2600 mg/kg</td>
</tr>
<tr>
<td>Propane (CAS 74-98-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 80000 ppm, 15 Minutes</td>
</tr>
<tr>
<td>Zinc (CAS 7440-66-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td>&gt; 5 g/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Causes mild skin irritation.

Serious eye damage/eye irritation
Causes serious eye irritation.

Respiratory or skin sensitization
Respiratory sensitization
Not a respiratory sensitizer.
This product is not expected to cause skin sensitization.

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity
Stoddard solvent (CAS 8052-41-3) 3 Not classifiable as to carcinogenicity to humans.

Not listed.

Not listed.

This product is not expected to cause reproductive or developmental effects.

May cause drowsiness and dizziness.

Causes damage to organs (central nervous system) through prolonged or repeated exposure.

Not an aspiration hazard.

Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure.

Symptoms may be delayed.

Very toxic to aquatic life with long lasting effects.

The product contains inorganic compounds which are not biodegradable.

The product contains volatile organic compounds which have a photochemical ozone creation potential.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>LC50</td>
<td>Daphnia pulex</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Pimephales promelas</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>NOEC</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td>Methyl ethyl ketone (CAS 78-93-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Pimephales promelas</td>
</tr>
<tr>
<td>Zinc (CAS 7440-66-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Oncorhynchus mykiss</td>
</tr>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>LC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
</tbody>
</table>

The product contains inorganic compounds which are not biodegradable.

The product is slightly soluble in water. Expected to be slightly to moderately mobile in soil.

The product contains volatile organic compounds which have a photochemical ozone creation potential.

The product is not expected to cause skin sensitization. This product is not expected to cause skin sensitization.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity
Stoddard solvent (CAS 8052-41-3) 3 Not classifiable as to carcinogenicity to humans.

NTP Report on Carcinogens
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure
May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure
Causes damage to organs (central nervous system) through prolonged or repeated exposure.

Aspiration hazard
Not an aspiration hazard.

Chronic effects
Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure.

Further information
Symptoms may be delayed.

12. Ecological information

Ecotoxicity

Components | Species | Test Results |
---|---|---|
Acetone (CAS 67-64-1) |                       |                       |
**Aquatic** |                       |                       |
**Acute** |                       |                       |
Crustacea | LC50 | Daphnia pulex | 8800 mg/l, 48 Hours |
Fish | LC50 | Pimephales promelas | 7163 mg/l, 96 Hours |
**Chronic** |                       |                       |
Crustacea | NOEC | Daphnia magna | > 79 mg/l, 21 days |
Methyl ethyl ketone (CAS 78-93-3) |                       |                       |
**Aquatic** |                       |                       |
**Acute** |                       |                       |
Crustacea | EC50 | Daphnia magna | 5091 mg/l, 48 Hours |
Fish | LC50 | Pimephales promelas | 3220 mg/l, 96 Hours |
Zinc (CAS 7440-66-6) |                       |                       |
**Aquatic** |                       |                       |
**Acute** |                       |                       |
Crustacea | EC50 | Daphnia magna | 0.07 mg/l |
Fish | LC50 | Oncorhynchus mykiss | 0.14 mg/l |
Zinc oxide (CAS 1314-13-2) |                       |                       |
**Aquatic** |                       |                       |
Crustacea | LC50 | Water flea (Daphnia magna) | 0.098 mg/l, 48 Hours |
Persistence and degradability
The product contains inorganic compounds which are not biodegradable.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)
Acetone (CAS 67-64-1) -0.24
Butane (CAS 106-97-8) 2.89
Methyl ethyl ketone (CAS 78-93-3) 0.29
Propane (CAS 74-98-6) 2.36
Stoddard solvent (CAS 8052-41-3) 3.16 - 7.15

Mobility in soil
The product is slightly soluble in water. Expected to be slightly to moderately mobile in soil.

Other adverse effects
The product contains volatile organic compounds which have a photochemical ozone creation potential.
13. Disposal considerations

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

Local disposal regulations: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code:
- D001: Waste Flammable material with a flash point <140 F
- D035: Waste Methyl ethyl ketone

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

DOT

- UN number: UN1950
- UN proper shipping name: Aerosols, flammable
- Transport hazard class(es):
  - Class: 2.1
  - Subsidiary risk: -
  - Label(s): 2.1
  - Packing group: -
  - Environmental hazards: -
  - Marine pollutant: Yes
- Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
- Special provisions: N82
- Packaging exceptions: 306
- Packaging non bulk: None
- Packaging bulk: None

IATA

- UN number: UN1950
- UN proper shipping name: Aerosols, flammable
- Transport hazard class(es):
  - Class: 2.1
  - Subsidiary risk: -
  - Label(s): 2.1
  - Packing group: -
  - Environmental hazards: Yes
- ERG Code: 10L
- Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

IMDG

- UN number: UN1950
- UN proper shipping name: AEROSOLS, flammable
- Transport hazard class(es):
  - Class: 2
  - Subsidiary risk: -
  - Packing group: -
  - Environmental hazards: -
  - Marine pollutant: Yes
- EmS: F-D, S-U
- Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.
15. Regulatory information

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>7440-66-6</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Butane (CAS 106-97-8)</td>
<td>1314-13-2</td>
<td>≤ 2</td>
</tr>
<tr>
<td>Methyl ethyl ketone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propane (CAS 74-98-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc (CAS 7440-66-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SARA 304 Emergency release notification**
Not regulated.

Not listed.

**Toxic Substances Control Act (TSCA)**

All components of the mixture on the TSCA 8(b) inventory are designated "active".

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**
Not listed.

**SARA 311/312 Hazardous chemical**

Yes

**Classified hazard categories**

| Flammable (gases, aerosols, liquids, or solids) |
| Gas under pressure |
| Combustible dust |
| Serious eye damage or eye irritation |
| Specific target organ toxicity (single or repeated exposure) |

**SARA 313 (TRI reporting)**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc</td>
<td>7440-66-6</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>≤ 2</td>
</tr>
</tbody>
</table>

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

| Butane (CAS 106-97-8) |          |
| Propane (CAS 74-98-6)  |          |

**Safe Drinking Water Act (SDWA)**
Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

| Acetone (CAS 67-64-1)  | 6532      |
| Methyl ethyl ketone    | 6714      |

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

| Acetone (CAS 67-64-1)  | 35 %WV    |
| Methyl ethyl ketone    | 35 %WV    |

**DEA Exempt Chemical Mixtures Code Number**

| Acetone (CAS 67-64-1)  | 6532      |
| Methyl ethyl ketone    | 6714      |

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

| Acetone (CAS 67-64-1)  | Low priority |
| Methyl ethyl ketone    | Low priority |

**US state regulations**

**US. Massachusetts RTK - Substance List**

| Acetone (CAS 67-64-1)  |
| Butane (CAS 106-97-8)  |
| Methyl ethyl ketone (CAS 78-93-3) |

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ZRC and Galvilit Cold Galvanizing Compounds - Aerosol

917583 Version #: 05 Revision date: 28-February-2020 Issue date: 14-December-2013

SDS US

9 / 11
Propane (CAS 74-98-6)
Stoddard solvent (CAS 8052-41-3)
Zinc (CAS 7440-66-6)
Zinc oxide (CAS 1314-13-2)

**US. New Jersey Worker and Community Right-to-Know Act**
Acetone (CAS 67-64-1)
Butane (CAS 106-97-8)
Methyl ethyl ketone (CAS 78-93-3)
Propane (CAS 74-98-6)
Stoddard solvent (CAS 8052-41-3)
Zinc (CAS 7440-66-6)
Zinc oxide (CAS 1314-13-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**
Acetone (CAS 67-64-1)
Butane (CAS 106-97-8)
Methyl ethyl ketone (CAS 78-93-3)
Propane (CAS 74-98-6)
Stoddard solvent (CAS 8052-41-3)
Zinc (CAS 7440-66-6)
Zinc oxide (CAS 1314-13-2)

**US. Rhode Island RTK**
Acetone (CAS 67-64-1)
Butane (CAS 106-97-8)
Methyl ethyl ketone (CAS 78-93-3)
Propane (CAS 74-98-6)
Stoddard solvent (CAS 8052-41-3)
Zinc (CAS 7440-66-6)
Zinc oxide (CAS 1314-13-2)

**California Proposition 65**
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**
Acetone (CAS 67-64-1)
Butane (CAS 106-97-8)
Methyl ethyl ketone (CAS 78-93-3)
Stoddard solvent (CAS 8052-41-3)
Zinc (CAS 7440-66-6)

**International Inventories**

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Chemical Substance Inventory (TCSI)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).
16. Other information, including date of preparation or last revision

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue date</td>
<td>14-December-2013</td>
</tr>
<tr>
<td>Revision date</td>
<td>28-February-2020</td>
</tr>
<tr>
<td>Version #</td>
<td>05</td>
</tr>
<tr>
<td>NFPA ratings</td>
<td>![NFPA ratings icon]</td>
</tr>
</tbody>
</table>

Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.