1.1 Product identifier

Product Name: EZ TPO FB Bonding Adhesive (LVOC)

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

Relevant identified use(s): Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer: Firestone Building Products Company

250 West 96th Street
Indianapolis, IN 46260
United States

genflexmsds@bfdp.com

Telephone (General): 800-428-4442

1.4 Emergency telephone number

Manufacturer: (800) 424-9300 - CHEMTREC

Manufacturer: (703) 527-3887 - CHEMTREC - International

---

Section 2: Hazards Identification

EU/EEC

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP

- Flammable Liquids 2 - H225
- Eye Irritation 2 - H319
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- EUH066

DSD/DPD

- Highly Flammable (F)
- Irritant (Xi)
- R11, R36, R66, R67

2.2 Label Elements

CLP

DANGER

Hazard statements:

- H225 - Highly flammable liquid and vapour
- H319 - Causes serious eye irritation
- H336 - May cause drowsiness or dizziness
- EUH066 - Repeated exposure may cause skin dryness or cracking.
Precautionary statements

Prevention
- P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground and/or bond container and receiving equipment.
- P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P261 - Avoid breathing mist/vapours/spray.
- P264 - Wash thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response
- P370+P378 - In case of fire: Use appropriate media for extinction.
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P321 - Specific treatment, see supplemental first aid information.
- P362 - Take off contaminated clothing and wash before reuse.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage/Disposal
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- P235 - Keep cool.
- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD

Risk phrases
- R11 - Highly flammable.
- R36 - Irritating to eyes.
- R66 - Repeated exposure may cause skin dryness or cracking.
- R67 - Vapours may cause drowsiness and dizziness.

Safety phrases
- S9 - Keep container in a well ventilated place
- S16 - Keep away from sources of ignition - No Smoking.
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

CLP
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)
According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012
- Flammable Liquids 2 - H225
- Skin Irritation 2 - H315
- Eye Irritation 2 - H319
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336

2.2 Label elements

OSHA HCS 2012

DANGER
Canada According to WHMIS

2.3 Other hazards
OSHA HCS 2012


Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

Flammable Liquids - B2
Other Toxic Effects - D2A
Other Toxic Effects - D2B

2.2 Label elements

WHMIS

2.3 Other hazards

WHMIS

In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).
Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Identifiers</th>
<th>%</th>
<th>LD50/LC50</th>
<th>Classifications According to Regulation/Directive</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>CAS:67-64-1</td>
<td>50%</td>
<td>Inhalation-Rat LC50: 50100 mg/m³ 8 Hour(s)</td>
<td>EU DSD/DPD: Annex I: F; R11 Xi; R36 R66 R67</td>
<td>NDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100%</td>
<td></td>
<td>OSHA HCS 2012: Flam. Liq. 2; Eye Irrit 2A; STOT SE 3: Resp. Irrit. &amp; Narc.</td>
<td></td>
</tr>
<tr>
<td>4-Heptanone, 2,6-</td>
<td>CAS:108-83-8</td>
<td>2.5%</td>
<td>Ingestion/Oral-Rat LD50: 5750 mg/kg</td>
<td>EU DSD/DPD: Annex I: R10 Xi; R37</td>
<td>NDA</td>
</tr>
<tr>
<td>dimethyl-</td>
<td>EINECS:203-620-1</td>
<td></td>
<td>Skin-Rabbit LD50: 16120 mg/kg</td>
<td>EU CLP: Annex VI: Flam. Liq. 3, H226; STOT SE 3, H335</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10%</td>
<td></td>
<td>OSHA HCS 2012: Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2</td>
<td></td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>CAS:1314-13-2</td>
<td>&lt;= 2.5%</td>
<td>NDA</td>
<td>EU DSD/DPD: Annex I: N; R50-53</td>
<td>NDA</td>
</tr>
<tr>
<td></td>
<td>EINECS:215-222-5</td>
<td></td>
<td></td>
<td>EU CLP: Annex VI: Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OSHA HCS 2012: Not Classified</td>
<td></td>
</tr>
</tbody>
</table>

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media
- LARGE FIRES: Water spray, fog or alcohol-resistant foam.
- SMALL FIRES: Dry chemical, CO2, water spray or alcohol-resistant foam.

Unsuitable Extinguishing Media
- Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
  Containers may explode when heated.
  Vapor explosion hazard indoors, outdoors or in sewers.
  Many liquids are lighter than water.
  Most vapors are heavier than air. They will spread along ground and collect in low or
  confined areas (sewers, basements, tanks).
  Runoff to sewer may create fire or explosion hazard.
  Vapors may form explosive mixtures with air.
  Vapors may travel to source of ignition and flash back.
  Dried solids can burn and release toxic fumes and vapors.

Hazardous Combustion Products
- No data available

5.3 Advice for firefighters
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Cool fire exposed containers with water.
- Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions
- Ventilate enclosed areas. Wear appropriate protective clothing. Do not touch or walk through spilled material.

Emergency Procedures
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) Keep out of low areas. Stay upwind.
- Keep unauthorized personnel away.
- Ventilate closed spaces before entering.

6.2 Environmental precautions
- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures
- Stop leak if you can do it without risk.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Use clean non-sparking tools to collect absorbed material.
- All equipment used when handling the product must be grounded.

6.4 Reference to other sections
- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage
7.1 Precautions for safe handling

Handling
- Keep away from fire. Keep away from heat and sparks.
- Wear appropriate personal protective equipment, avoid direct contact.
- Avoid breathing mist/vapours/spray. Avoid contact with skin, eyes, and clothing.
- Use only in well ventilated areas.
- All equipment used when handling the product must be grounded.
- Bond and ground all transfer containers and equipment. Take precautionary measures against static charges.
- Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container.
- Do not eat, drink or smoke when using this product.
- After handling wash hands thoroughly.

7.2 Conditions for safe storage, including any incompatibilities

Storage
- Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources.
- Keep container tightly closed.
- Keep away from incompatible materials.

7.3 Specific end use(s)
- Refer to Section 1.2 - Relevant identified uses.

---

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines</th>
<th>Canada Northwest Territories</th>
<th>Canada Nova Scotia</th>
<th>Canada Nunavut</th>
<th>Canada Ontario</th>
<th>Canada Quebec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc oxide (1314-13-2)</td>
<td>10 mg/m3 STEL (respirable fraction)</td>
<td>10 mg/m3 STEL (respirable)</td>
<td>10 mg/m3 STEL (respirable)</td>
<td>10 mg/m3 STEL (respirable)</td>
<td>10 mg/m3 STEL (fume)</td>
</tr>
<tr>
<td>TWAs</td>
<td>2 mg/m3 TWA (respirable fraction)</td>
<td>2 mg/m3 TWA (respirable)</td>
<td>2 mg/m3 TWA (respirable)</td>
<td>2 mg/m3 TWA (respirable)</td>
<td>10 mg/m3 TWA (particulate matter containing no Asbestos and &lt;1% Crystalline silica, dust); 5 mg/m3 TWA (fume)</td>
</tr>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>25 ppm TWA</td>
<td>25 ppm TWA; 145 mg/m3 TWA</td>
<td>25 ppm TWA</td>
<td>25 ppm TWA</td>
<td>25 ppm TWA; 145 mg/m3 TWA</td>
</tr>
<tr>
<td>(108-83-8)</td>
<td>STELs</td>
<td>750 ppm STEL</td>
<td>750 ppm STEL; 1800 mg/m3 STEL</td>
<td>500 ppm STEL</td>
<td>750 ppm STEL; 1782 mg/m3 STEL</td>
</tr>
<tr>
<td>TWAs</td>
<td>500 ppm TWA</td>
<td>500 ppm TWA; 1200 mg/m3 TWA</td>
<td>250 ppm TWA</td>
<td>500 ppm TWA</td>
<td>500 ppm TWA; 1188 mg/m3 TWA</td>
</tr>
</tbody>
</table>

---

Exposure Limits/Guidelines (Con’t.)

<table>
<thead>
<tr>
<th>Result</th>
<th>Canada Northwest Territories</th>
<th>Canada Nova Scotia</th>
<th>Canada Nunavut</th>
<th>Canada Ontario</th>
<th>Canada Quebec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc oxide</td>
<td>10 mg/m3 STEL (fume)</td>
<td>10 mg/m3 STEL (fume)</td>
<td>10 mg/m3 STEL (fume)</td>
<td>10 mg/m3 STEV (fume)</td>
<td></td>
</tr>
<tr>
<td>(1314-13-2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWAs</td>
<td>5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)</td>
<td>2 mg/m3 TWA (respirable fraction)</td>
<td>5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)</td>
<td>2 mg/m3 TWA (respirable)</td>
<td>10 mg/m3 TWAEV (containing no Asbestos and &lt;1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)</td>
</tr>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>38 ppm STEL; 220 mg/m3 STEL</td>
<td>Not established</td>
<td>38 ppm STEL; 220 mg/m3 STEL</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>(108-83-8)</td>
<td>STELs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWAs</td>
<td>25 ppm TWA; 145 mg/m3 TWA</td>
<td>25 ppm TWA</td>
<td>25 ppm TWA; 145 mg/m3 TWA</td>
<td>25 ppm TWA</td>
<td>25 ppm TWAEV; 145 mg/m3 TWAEV</td>
</tr>
</tbody>
</table>
### 8.2 Exposure controls

**Engineering Measures/Controls**

- This material is designed to be used outdoors, in roofing applications. 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. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

**Personal Protective Equipment**

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

**Eye/Face**

- Wear appropriate eye/face protection for the job/activity.

**Skin/Body**

- Wear appropriate gloves for the job/activity.

**Environmental Exposure Controls**

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

---

### Key to abbreviations

- ACGIH = American Conference of Governmental Industrial Hygiene
- NIOSH = National Institute of Occupational Safety and Health
- OSHA = Occupational Safety and Health Administration
- STEL = Short Term Exposure Limits are based on 15-minute exposures
- STEV = Short Term Exposure Value
- TWAEV = Time-Weighted Average Exposure Value
- TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

---

### Section 9 - Physical and Chemical Properties

#### 9.1 Information on Physical and Chemical Properties
Material Description

<table>
<thead>
<tr>
<th>Physical Form</th>
<th>Liquid</th>
<th>Appearance/Description</th>
<th>Brown liquid with a characteristic odor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Brown</td>
<td>Odor</td>
<td>Characteristic odor.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Data lacking</td>
<td></td>
<td></td>
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</table>

General Properties

<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>131 F (55 C)</th>
<th>Melting Point</th>
<th>Data lacking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition Temperature</td>
<td>Data lacking</td>
<td>pH</td>
<td>Data lacking</td>
</tr>
<tr>
<td>Specific Gravity/Relative Density</td>
<td>0.882 Water=1</td>
<td>Water Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Data lacking</td>
<td>Explosive Properties</td>
<td>Data lacking</td>
</tr>
</tbody>
</table>

Vocality

<table>
<thead>
<tr>
<th>Vapor Pressure</th>
<th>175 mmHg (torr) @ 68 F (20 C)</th>
<th>Vapor Density</th>
<th>Data lacking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporation Rate</td>
<td>Data lacking</td>
<td>Volatiles (Vol.)</td>
<td>64 %</td>
</tr>
</tbody>
</table>

Flammability

| Flash Point | -2 F (-18.8889 C) | UEL | 13 % |
| LEL          | 2.6%               | Autoignition | Data lacking |
| Flammability (solid, gas) | Data lacking |                                        |

Environmental

| Octanol/Water Partition coefficient | Data lacking |

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- Strong oxidizers, acids, and bases.

10.6 Hazardous decomposition products

- Oxides of carbon and nitrogen.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS</th>
<th>Acute Toxicity: orb-rat LD50:5800 mg/kg; ihl-rat LC50:50100 mg/m3/8H; Irritation: eye-rbt 20 mg SEV; skn-rbt 395 mg open MLD; Reproductive: ihl-rat TCLo:11000 ppm (6-19D preg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (50% TO 100%)</td>
<td>67-64-1</td>
<td></td>
</tr>
</tbody>
</table>
### 4-Heptanone, 2,6-dimethyl- (2.5% TO 10%)

**Acute Toxicity:** orl-rat LD50: 5750 mg/kg; skin-rbt LD50: 16120 mg/kg

**Irritation:** eye-rbt 500 mg MLD; skin-rbt 500 mg open MLD

### Zinc oxide (<= 2.5%)

**Irritation:** eye-rbt 500 mg/24H MLD; skin-rbt 500 mg/24H MLD

### GHS Properties

<table>
<thead>
<tr>
<th>Classification</th>
<th>EU/CLP • Classification criteria not met</th>
<th>OSHA HCS 2012 • Classification criteria not met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>EU/CLP • Classification criteria not met</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>EU/CLP • Classification criteria not met</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>EU/CLP • Classification criteria not met</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>EU/CLP • Classification criteria not met</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Skin corrosion/Irritation</td>
<td>EU/CLP • Classification criteria not met</td>
<td>OSHA HCS 2012 • Skin Irritation 2</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>EU/CLP • Classification criteria not met</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>STOT-RE</td>
<td>EU/CLP • Classification criteria not met</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>STOT-SE</td>
<td>EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects</td>
<td>OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation</td>
</tr>
<tr>
<td>Toxicity for Reproduction</td>
<td>EU/CLP • Classification criteria not met</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>EU/CLP • Classification criteria not met</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Serious eye damage/Irritation</td>
<td>EU/CLP • Eye Irritation 2</td>
<td>OSHA HCS 2012 • Eye Irritation 2</td>
</tr>
</tbody>
</table>

### Route(s) of entry/exposure

- Inhalation, Skin, Eye, Ingestion

### Potential Health Effects

**Inhalation**
- **Acute (Immediate)**: May cause respiratory irritation. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.
- **Chronic (Delayed)**: No data available

**Skin**
- **Acute (Immediate)**: Causes skin irritation.
- **Chronic (Delayed)**: Repeated exposure may cause skin dryness or cracking.

**Eye**
- **Acute (Immediate)**: Causes serious eye irritation.
- **Chronic (Delayed)**: No data available.

**Ingestion**
- **Acute (Immediate)**: No data available
- **Chronic (Delayed)**: No data available.

### Key to abbreviations

- **LC** = Lethal Concentration
- **TC** = Toxic Concentration
Section 12 - Ecological Information

12.1 Toxicity
- Material data lacking.

12.2 Persistence and degradability
- Material data lacking.

12.3 Bioaccumulative potential
- Material data lacking.

12.4 Mobility in Soil
- Material data lacking.

12.5 Results of PBT and vPvB assessment
- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects
- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods
- **Product waste**: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- **Packaging waste**: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>14.2 UN proper shipping name</th>
<th>14.3 Transport hazard class(es)</th>
<th>14.4 Packing group</th>
<th>14.5 Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>UN1133 Adhesives</td>
<td>3</td>
<td>II</td>
<td>NDA</td>
</tr>
<tr>
<td>TDG</td>
<td>UN1133 ADHESIVES</td>
<td>3</td>
<td>II</td>
<td>Potential Marine Pollutant</td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>UN1133 ADHESIVES</td>
<td>3</td>
<td>II</td>
<td>NDA</td>
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<tr>
<td>ADN</td>
<td>UN1133 ADHESIVES</td>
<td>3</td>
<td>II</td>
<td>NDA</td>
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<tr>
<td>ADR/RID</td>
<td>UN1133 ADHESIVES</td>
<td>3</td>
<td>II</td>
<td>NDA</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>UN1133 Adhesives</td>
<td>3</td>
<td>II</td>
<td>NDA</td>
</tr>
</tbody>
</table>

14.6 Special precautions for user
- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- Not relevant.
Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications  • Acute, Fire

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>MA</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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Inventory

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<tr>
<th>Component</th>
<th>CAS</th>
<th>Canada DSL</th>
<th>Canada NDSL</th>
<th>EU EINECS</th>
<th>EU ELNICS</th>
<th>TSCA</th>
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<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Canada

Labor

Canada - WHMIS - Classifications of Substances

- 4-Heptanone, 2,6-dimethyl- 108-83-8 B3
- Acetone 67-64-1 B2, D2B
- Zinc oxide 1314-13-2 Uncontrolled product according to WHMIS classification criteria
- Zinc oxide as Zinc compounds Not Listed

Canada - WHMIS - Ingredient Disclosure List

- 4-Heptanone, 2,6-dimethyl- 108-83-8 1 %
- Acetone 67-64-1 1 %
- Zinc oxide 1314-13-2 1 %
- Zinc oxide as Zinc compounds Not Listed

Environment

Canada - CEPA - Priority Substances List

- 4-Heptanone, 2,6-dimethyl- 108-83-8 Not Listed
- Acetone 67-64-1 Not Listed
- Zinc oxide 1314-13-2 Not Listed
- Zinc oxide as Zinc compounds Not Listed

Other

Canada - Accelerated Reduction/Elimination of Toxics (ARET)

- 4-Heptanone, 2,6-dimethyl- 108-83-8 Not Listed
- Acetone 67-64-1 Not Listed
- Zinc oxide 1314-13-2 Not Listed
- Zinc oxide as Zinc compounds Not Listed
### Canada New Brunswick

**Environment**

**Canada - New Brunswick - Ozone Depleting Substances - Schedule A**

- 4-Heptanone, 2,6-dimethyl-: 108-83-8 (Not Listed)
- Acetone: 67-64-1 (Not Listed)
- Zinc oxide: 1314-13-2 (Not Listed)
- Zinc oxide as Zinc compounds: Not Listed

**Canada - New Brunswick - Ozone Depleting Substances - Schedule B**

- 4-Heptanone, 2,6-dimethyl-: 108-83-8 (Not Listed)
- Acetone: 67-64-1 (Not Listed)
- Zinc oxide: 1314-13-2 (Not Listed)
- Zinc oxide as Zinc compounds: Not Listed

### Europe

**Other**

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

- 4-Heptanone, 2,6-dimethyl-: 108-83-8 (R10 Xi; R37)
- Acetone: 67-64-1 (F; R11 Xi; R36 R66 R67)
- Zinc oxide: 1314-13-2 (N; R50-53)
- Zinc oxide as Zinc compounds: Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits**

- 4-Heptanone, 2,6-dimethyl-: 108-83-8 (10% C: Xi; R:37)
- Acetone: 67-64-1 (Not Listed)
- Zinc oxide: 1314-13-2 (Not Listed)
- Zinc oxide as Zinc compounds: Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling**

- 4-Heptanone, 2,6-dimethyl-: 108-83-8 (Xi R:10-37 S:(2)-24)
- Acetone: 67-64-1 (F Xi R:11-36-66-67 S:(2)-9-16-26)
- Zinc oxide as Zinc compounds: Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations**

- 4-Heptanone, 2,6-dimethyl-: 108-83-8 (Not Listed)
- Acetone: 67-64-1 (Not Listed)
- Zinc oxide: 1314-13-2 (Not Listed)
- Zinc oxide as Zinc compounds: Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases**

- 4-Heptanone, 2,6-dimethyl-: 108-83-8 (S:(2)-24)
- Acetone: 67-64-1 (S:(2)-9-16-26)
- Zinc oxide: 1314-13-2 (S:60-61)
- Zinc oxide as Zinc compounds: Not Listed

### United States

**Labor**

**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

- 4-Heptanone, 2,6-dimethyl-: 108-83-8 (Not Listed)
- Acetone: 67-64-1 (Not Listed)
- Zinc oxide: 1314-13-2 (Not Listed)
### U.S. - OSHA - Specifically Regulated Chemicals

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS Number</th>
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</tr>
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<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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<td>Not Listed</td>
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### Environment

#### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

<table>
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<th>CAS Number</th>
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<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
<td></td>
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#### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

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<thead>
<tr>
<th>Chemical</th>
<th>CAS Number</th>
<th>RQ Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>5000 lb final RQ; 2270 kg final RQ</td>
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<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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#### U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

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<th>Chemical</th>
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<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
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</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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#### U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

<table>
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<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
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</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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#### U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

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<th>Chemical</th>
<th>CAS Number</th>
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<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
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<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
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<td>Zinc oxide as Zinc compounds</td>
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#### U.S. - CERCLA/SARA - Section 313 - Emission Reporting

<table>
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<th>CAS Number</th>
<th>RQ Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>1.0 % de minimis concentration (Chemical Category N982)</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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#### U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

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<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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#### U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

<table>
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<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide</td>
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<td>Zinc oxide as Zinc compounds</td>
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<tr>
<td>Constituent</td>
<td>CAS Number</td>
<td>Note</td>
</tr>
<tr>
<td>-------------</td>
<td>------------</td>
<td>------</td>
</tr>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Included in waste stream: F039</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
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<tr>
<td>Zinc oxide as Zinc compounds</td>
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**U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring**

<table>
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<th>CAS Number</th>
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<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
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</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
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<tr>
<td>Zinc oxide as Zinc compounds</td>
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</table>

**U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents**

<table>
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<tr>
<th>Constituent</th>
<th>CAS Number</th>
<th>Note</th>
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<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
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</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
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<tr>
<td>Zinc oxide as Zinc compounds</td>
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</table>

**U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards**

<table>
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<tr>
<th>Constituent</th>
<th>CAS Number</th>
<th>Note</th>
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</thead>
<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>0.28 mg/L (wastewater); 160 mg/kg (nonwastewater)</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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</table>

**U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring**

<table>
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<th>Constituent</th>
<th>CAS Number</th>
<th>Note</th>
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<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td></td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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</table>

**U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics**

<table>
<thead>
<tr>
<th>Constituent</th>
<th>CAS Number</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>waste number U002 (Ignitable waste)</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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</tr>
</tbody>
</table>

**United States - California**

**Environment**

**U.S. - California - Proposition 65 - Carcinogens List**

<table>
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<tr>
<th>Constituent</th>
<th>CAS Number</th>
<th>Note</th>
</tr>
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<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
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<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
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</tr>
</tbody>
</table>

**U.S. - California - Proposition 65 - Developmental Toxicity**

<table>
<thead>
<tr>
<th>Constituent</th>
<th>CAS Number</th>
<th>Note</th>
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</thead>
<tbody>
<tr>
<td>4-Heptanone, 2,6-dimethyl-</td>
<td>108-83-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Zinc oxide as Zinc compounds</td>
<td></td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)**
• 4-Heptanone, 2,6-dimethyl- 108-83-8 Not Listed
  • Acetone 67-64-1 Not Listed
  • Zinc oxide 1314-13-2 Not Listed
  • Zinc oxide as Zinc compounds Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)
• 4-Heptanone, 2,6-dimethyl- 108-83-8 Not Listed
  • Acetone 67-64-1 Not Listed
  • Zinc oxide 1314-13-2 Not Listed
  • Zinc oxide as Zinc compounds Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female
• 4-Heptanone, 2,6-dimethyl- 108-83-8 Not Listed
  • Acetone 67-64-1 Not Listed
  • Zinc oxide 1314-13-2 Not Listed
  • Zinc oxide as Zinc compounds Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male
• 4-Heptanone, 2,6-dimethyl- 108-83-8 Not Listed
  • Acetone 67-64-1 Not Listed
  • Zinc oxide 1314-13-2 Not Listed
  • Zinc oxide as Zinc compounds Not Listed

United States - Pennsylvania

Labor
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
• 4-Heptanone, 2,6-dimethyl- 108-83-8 Not Listed
  • Acetone 67-64-1 (fume)
  • Zinc oxide 1314-13-2
  • Zinc oxide as Zinc compounds

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
• 4-Heptanone, 2,6-dimethyl- 108-83-8 Not Listed
  • Acetone 67-64-1 Not Listed
  • Zinc oxide 1314-13-2 Not Listed
  • Zinc oxide as Zinc compounds Not Listed

15.2 Chemical Safety Assessment
• No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)
• H226 - Flammable liquid and vapour
  H335 - May cause respiratory irritation
  H400 - Very toxic to aquatic life
  H410 - Very toxic to aquatic life with long lasting effects
  R10 - Flammable.
  R37 - Irritating to respiratory system.
  R50 - Very toxic to aquatic organisms.
  R53 - May cause long-term adverse effects in the aquatic environment.

Last Revision Date
• 18/February/2014
Disclaimer/Statement of Liability

- The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer’s employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available