SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : Ceel-Co® and/or Ceel-Tite® Thinner, Zeston® Perma-Weld Thinner

Manufacturer or supplier’s details
Company : Johns Manville
Address : P.O. Box 5108
Denver, CO USA 80127
Telephone : 303-978-2000 8:00AM-5:00PM M-F
Emergency telephone number : 1-800-424-9300 (Chemtrec, in English)
Prepared by : productsafety@jm.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids : Category 2
Eye irritation : Category 2A
Specific target organ toxicity - single exposure : Category 3 (Respiratory system, Central nervous system)

GHS Label element
Hazard pictograms :

Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements : Prevention:
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/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 dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
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P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: 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.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 IF eye irritation persists: Get medical advice/attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>tetrahydrofuran</td>
<td>109-99-9</td>
<td>&gt;= 70 - &lt; 90</td>
</tr>
<tr>
<td>butanone</td>
<td>78-93-3</td>
<td>&gt;= 20 - &lt; 30</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled
Consult a physician after significant exposure.
If unconscious place in recovery position and seek medical advice.

In case of skin contact
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact
Remove contact lenses.
Immediately flush eye(s) with plenty of water.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed
Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media: High volume water jet

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: Hazardous decomposition products due to incomplete combustion

No hazardous combustion products are known

Specific extinguishing methods: Standard procedure for chemical fires.

Further information: Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions: Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
SECTION 7. HANDLING AND STORAGE

**Advice on safe handling**
- Avoid formation of aerosol.
- Do not breathe vapours/dust.
- Avoid exposure - obtain special instructions before use.
- Avoid contact with skin and eyes.
- For personal protection see section 8.
- Smoking, eating and drinking should be prohibited in the application area.
- Take precautionary measures against static discharges.
- Provide sufficient air exchange and/or exhaust in work rooms.
- Open drum carefully as content may be under pressure.
- Dispose of rinse water in accordance with local and national regulations.

**Conditions for safe storage**
- No smoking.
- Keep container tightly closed in a dry and well-ventilated place.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Observe label precautions.
- Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>tetrahydrofuran</td>
<td>109-99-9</td>
<td>TWA</td>
<td>50 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>100 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>200 ppm</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>250 ppm</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>200 ppm</td>
<td>OSHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>250 ppm</td>
<td>OSHA</td>
</tr>
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<td>200 ppm</td>
<td>OSHA</td>
</tr>
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<table>
<thead>
<tr>
<th></th>
<th>STEL</th>
<th>300 ppm</th>
<th>885 mg/m3</th>
<th>OSHA</th>
</tr>
</thead>
</table>

**Personal protective equipment**

Respiratory protection: In the case of vapour formation use a respirator with an approved filter.

Hand protection

Remarks: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection: Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection: impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

Written instructions for handling must be available at the work place.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: liquid

Colour: colourless

Odour: hydrocarbon-like

Odour Threshold: No data available

pH: No data available

Melting point/freezing point: No data available

Boiling point/boiling range: 133 °F

Flash point: 6 °F

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper explosion limit: 1.9 %(V)

Lower explosion limit: 11.8 %(V)
Vapour pressure : No data available
Relative vapour density : No data available
Relative density : 0.87
Solubility(ies)
   Water solubility : insoluble
Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : No data available
Thermal decomposition : No data available
Viscosity, dynamic : No data available
Viscosity, kinematic : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
Chemical stability : No decomposition if stored and applied as directed.
Possibility of hazardous reactions : No decomposition if stored and applied as directed.
   Vapours may form explosive mixture with air.
Conditions to avoid : Heat, flames and sparks.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:
Acute oral toxicity : Acute toxicity estimate : 2,200 mg/kg
   Method: Calculation method

Acute toxicity

Components:
tetrahydrofuran:
Acute oral toxicity : LD50 (Rat): 1,650 mg/kg
Acute inhalation toxicity : LC50 (Mouse): 24,000 mg/m3
   Exposure time: 2 h
Skin corrosion/irritation

**Product:**
Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

**Product:**
Remarks: May cause irreversible eye damage.

Serious eye damage/eye irritation

**Components:**
tetrahydrofuran:
Remarks: Severe eye irritation

| **IARC** | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| **ACGIH** | Confirmed animal carcinogen with unknown relevance to humans |
| tetrahydrofuran | 109-99-9 |
| **OSHA** | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| **NTP** | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |

**STOT - single exposure**

**Components:**
tetrahydrofuran:
Assessment: May cause respiratory irritation.

**Further information**

**Product:**
Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**
No data available
Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects
No data available

Product:
Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Disposal of residual product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International transport regulations
Exempt, consumer commodity per 49 CFR 172.312.

SECTION 15. REGULATORY INFORMATION

TSCA list : Not relevant
Not relevant

EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ</th>
<th>Calculated product RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tetrahydrofuran 109-99-9 1000 1333

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC’s (40 CFR 60.489):
- butanone 78-93-3 25 %

California Prop 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:
- TSCA: On TSCA Inventory
- DSL: All components of this product are on the Canadian DSL.

SECTION 16. OTHER INFORMATION

Further information
Revision Date: 05/15/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.