1. **Product identification**

   **Product Name**: CL-TES 090 SOLVENT

   **Emergency telephone**: INFOTRAC 24-hour telephone # 1-800-535-5053

2. **Hazard Identification**

   **Danger**: highly flammable
   **State of matter**: liquid clear
   **Odor**: alcoholic

   **Environmental precautions**: Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

   **Potential health effects**

   **Acute effects**

   **Eyes**: Causes eye irritation
   **Skin**: Prolonged or repeated skin contact with liquid may cause defatting resulting in drying redness and possible blistering.
   **Inhalation**: May cause respiratory tract irritation.
   **Ingestion**: Aspiration hazard if swallowed – can enter lungs and cause damages.

3. **Composition/Information on Ingredients**

   **Components**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>64-17-5</td>
<td>85%</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>9%</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>4%</td>
</tr>
<tr>
<td>Isobutyl methyl ketone</td>
<td>108-10-1</td>
<td>1%</td>
</tr>
</tbody>
</table>

4. **First Aid Measures**

   **Eye Contact**: Immediately flush eyes with plenty of flowing water for 15 minutes holding eyelids apart. Consult physician.
   **Skin Contact**: Wash off immediately with soap and plenty of water while removing all contaminated clothing. Wash before reuse. If skin irritation persists, call a physician.
   **Inhalation**: Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
   **Ingestion**: If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

5. **Fire Fighting Measures**

   **Flammability**

   | Flash point | 13° C |
   | Autoignition temperature | ~400 ° C |
   | Explosion limits |
   | Lower | 4% (v) |
   | Upper | 20% (v) |
   | Fire/explosion | Flash back possible over considerable distance |
   | Hazardous combustion products | Carbon oxides |
   | Suitable extinguishing media | Water spray, alcohol resistant foam, dry chemical, carbon dioxide |
   | Protective measures | Wear self-contained breathing apparatus and protective suit |
   | Further information | Cool containers/tanks with water spray |

6. **Accidental Release Measures**

   **Personal precautions**: Keep away from and upwind of spill/leak. Remove all sources of ignition. Do not breath vapors or spray mist. Material can create slippery conditions.

   **Environmental precautions**: Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

   **Methods for cleaning up**: Soak up with inert absorbent material and dispose of a hazardous waste.
7. **Handling and Storage**
   
   **Safe handling advice:** Provide fresh air. Wear personal protective equipment. Ensure all equipment is electrically grounded before beginning transfer operations.
   
   **Advice on protections against fire and explosion:** Use explosion-proof equipment.
   
   **Storage:** Keep containers tightly closed in a dry, cool and well-ventilated place.

8. **Exposure Controls/Personal Protections**
   
   **Engineering measures:** Provide sufficient air exchange and/or exhaust in work rooms.
   
   **Personal protective equipment:**
   - **Eyes:** Safety glasses with side shields
   - **Skin:** Protective suit; safety shoes
   - **Inhalation:** In case of insufficient ventilation, wear suitable respiratory equipment
   - **Hygiene measures:** Wash hands before breaks and immediately after handling product
   - **Protective measures:** Wear suitable protective equipment

**Exposure Guidelines**

**Components Exposure limit(s)**

- **Ethanol**
  - US. ACGIH Threshold Limit Values time weighted average 1,000 ppm
  - US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 1,000 ppm (1,900 mg/m3)
  - US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Permissible exposure limit 1,000 ppm (1,900 mg/m3)
  - US. OSHA Table Z-1-A (29 CFR 1910.1000) time weighted average 1,000 ppm (1,900 mg/m3)
  - US. OSHA Table Z-1-A (29 CFR 1910.1000) Short term exposure limit 300 ppm (885 mg/m3)

- **Isopropyl Alcohol**
  - US. ACGIH Threshold Limit Values time weighted average 200 ppm
  - US. ACGIH Threshold Limit Values Short term time exposure limit 400 ppm
  - US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 400 ppm (980 mg/m3)
  - US. NIOSH: Pocket Guide to Chemical Hazards Short term exposure limit (REL): 500 ppm (1,225 mg/m3)
  - US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Permissible exposure limit 400 ppm (980 mg/m3)
  - US. OSHA Table Z-1-A (29 CFR 1910.1000) time weighted average 400 ppm (980 mg/m3)
  - US. OSHA Table Z-1-A (29 CFR 1910.1000) Short term exposure limit 500 ppm (1,225 mg/m3)

- **Methyl Alcohol**
  - US. ACGIH Threshold Limit Values time weighted average 200 ppm
  - US. ACGIH Threshold Limit Values Short term time exposure limit 250 ppm
  - US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 200 ppm (260 mg/m3)
  - US. NIOSH: Pocket Guide to Chemical Hazards Short term exposure limit (REL): 250 ppm (325 mg/m3)

- **Methanol**
  - US. ACGIH Threshold Limit Values time weighted average 200 ppm
  - US. ACGIH Threshold Limit Values Short term time exposure limit 250 ppm

- **Methyl Isobutyl Ketone**
  - US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Permissible exposure limit 100 ppm (410 mg/m3)
  - US. OSHA Table Z-1-A (29 CFR 1910.1000) time weighted average 50 ppm
  - US. OSHA Table Z-1-A (29 CFR 1910.1000) Short term exposure limit 750 ppm

**PEL** = Permissible Exposure Limits
**TW** = Time Weighted Average (8 hr.)
**TLV** = Threshold Limit Value
**STEL** = Short Term Exposure Limit (15 min.)
**EL** = Excursion Limit
**WEEL** = Workplace Environmental Exposure Level

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SECTION 9 Physical and chemical properties

Color: clear  
Odor: alcoholic  
Form: liquid  
Boiling point/boiling range: 74-80 °C  
Flash point: 13 °C  
Lower explosion limit: 4 %(V)  
Upper explosion limit: 20 %(V)  
Vapor pressure: ca. 66.661 hPa at 25 °C  
Solubility: miscible  
Melting point/range: -114 °C  
Density: 0.79  g/cm³

SECTION 10 STABILITY AND REACTIVITY

Conditions to avoid: Heat, flames and sparks  
Hazardous decomposition products: Carbon oxides  
Incompatible products: Strong oxidizing agents Incompatible with acids. Halogenated compounds  
Hazardous reactions: Hazardous polymerization does not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute oral toxicity:  
- Ethanol: LD₅₀ rat: 7,060 mg/kg; literature value  
- Methyl Isobutyl Ketone: LD₅₀ rat: 2,080 mg/kg; literature value  
- Methanol: LD₅₀ rat: 5,628 mg/kg

Acute inhalation toxicity:  
- Ethanol: LC₅₀ rabbit: 66,000 mg/l; literature; 4 h  
- Isopropyl alcohol: LC₅₀ rabbit: 16,000 mg/l; literature; 8 h  
- Methanol: LC₅₀ rat: 100 g/m³; literature

Acute dermal toxicity:  
- Ethanol: LD₅₀ rabbit: 20,000 mg/kg literature value  
- Methyl Isobutyl Ketone: LD₅₀ rabbit: 1,600 mg/kg literature value  
- Methanol: LD₅₀ rabbit: 15,800 mg/kg literature value

Skin irritation:  
- Isopropyl alcohol: rabbit: mild skin irritation; literature value  
- Methyl Isobutyl Ketone: rabbit: mild skin irritation; literature value

Eye irritation:  
- Isopropyl alcohol: rabbit: moderate eye irritation; literature value  
- Methyl Isobutyl Ketone: rabbit: moderate eye irritation; literature value

SECTION 12 DISPOSAL CONSIDERATIONS

Waste Classification:  

Waste from residues / unused products: In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.

Uncleaned empty packaging: Do not burn, or use a cutting torch on, the empty drum. Triple rinse containers., Can be offered for recycling, re-conditioning or puncture.

SECTION 13 TRANSPORT INFORMATION

DOT/49CFR  
UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II

ADR  
UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II

RID  
UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II

ADNR  
UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II

IMDG  
UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II, EmS F-E, S-D

ICAO/IATA  
UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II

SECTION 14 REGULATORY INFORMATION

U.S. Federal Classifications:  
OSHA Hazards: Flammable Liquid, Mild eye irritant, Mild respiratory irritant  
SARA 311/312: Fire Hazard, Acute Health Hazard
U.S. Regulated Ingredients:

Hazard information reporting
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313
Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

Components | CAS-No.
--- | ---
Methanol | 67-56-1
4-methypentan-2-one; isolbutyl methyl ketone | 108-10-1

Inventories

EU list of existing chemical substances
- All chemical constituents are listed in: EU list of existing chemical substances

US TSCA Inventory
- All chemical constituents are listed in: US TSCA Inventory

Australian Inv. of Chem. Substances AICS
- All chemical constituents are listed in: Australian Inv. of Chem. Substances AICS

Canadian Domestic Substances List DSL
- All chemical constituents are listed in: Canadian Domestic Substances List DSL

Jap. Inv. of Exist. & New Chemicals ENCS
- All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals ENCS

Korean Exist. Chemicals List ECL
- All chemical constituents are listed in: Korean Exist. Chemicals List ECL

Philippines Inv. of Chem. Subst. PICCS
- All chemical constituents are listed in: Philippines Inv. of Chem. Subst. PICCS

Inv. of Exist. Chem. Substances in China
- All chemical constituents are listed in: Inv. of Exist. Chem. Substances in China

Other international regulations

WHMIS Classification
- B2: Flammable Liquid
- D2B: Toxic Material Causing Other Toxic Effects

SECTION 16 OTHER INFORMATION

Hazard Ratings

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
<th>Hazard</th>
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<td>HMIS</td>
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<tr>
<td>NFPA</td>
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<td>3</td>
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