Material Safety Data Sheet

<table>
<thead>
<tr>
<th>WHMIS (Pictograms)</th>
<th>WHMIS (Classification)</th>
<th>Protective Clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-1B: Material causing immediate and serious toxic effects (TOXIC). Class D-2A: Material causing other toxic effects (VERY TOXIC). Class D-2B: Material causing other toxic effects (TOXIC).</td>
<td></td>
</tr>
</tbody>
</table>

Section 1. Product and Company Identification

Product Name / Trade name: Pure Shellac Thinner/ Solvent Alcohol

Synonym: Wood alcohol

Chemical Family: Alcohol, (Solvent,)

Chemical Formula: CH₂OH

Manufacturer: Recocem Inc.
860 Montée de Liesse
Montréal, Québec
514-341-3550

Material Uses: Other non specified industry: Solvent, fuel.

Associated Product’s Item Code: 13-391EXP

CAS #: 67-56-1

DSL: CEPA DSL: Methanol

Validation Date: 2/20/2001.


In Case of Emergency: Recocem Inc.
Communications and Regulatory Affairs Department
(905) 791-1788

Section 2. Hazardous Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
<th>Canadian Values (ACGIH)</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Methanol</td>
<td>67-56-1</td>
<td>100</td>
<td>TWA: 200 ppm from ACGIH (Canada, 1999), Period: 8 hour(s). Additional Hazards: Skin STEL: 250 ppm from ACGIH (Canada, 1999), Period: 15 minute(s). Additional Hazards: Skin TWA: 282 mg/m³ from ACGIH (Canada, 1999), Period: 8 hour(s). Additional Hazards: Skin STEL: 328 mg/m³ from ACGIH (Canada, 1999), Period: 15 minute(s). Additional Hazards: Skin</td>
<td></td>
</tr>
</tbody>
</table>

Section 3. Emergency Overview

Hazard Overview: DANGER!

POISON, FLAMMABLE, VAPOUR MAY CAUSE NEAR INVISIBLE FLASH FIRE. MAY BE FATAL IF SWALLOWED.

Keep away from heat, sparks and flame. DO NOT INGEST. Avoid breathing vapour or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Potential Acute Health Effects: Extremely dangerous in case of ingestion. Hazardous in case of inhalation. Slightly hazardous in case of skin contact (irritant, permeant), of eye contact (irritant). Non-sensitizer for skin. Severe over-exposure can result in death.

Note to Physician: Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to CNS, eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

Section 4. First Aid Measures

Eye Contact: IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.

Skin Contact: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Inhalation: Allow the victim to rest in a well ventilated area. Seek medical advice.

Ingestion: INDUCE VOMITING if patient is alert. Lower the head so that the vomit will not reenter the mouth and throat. Have conscious person drink several glasses of water or milk. SEEK IMMEDIATE MEDICAL ATTENTION.

Continued on Next Page
Section 5. Fire Fighting Measures

Products of Combustion These products are carbon oxides (CO, CO₂).

Fire Fighting Media and Instructions
- SMALL FIRE: Use DRY chemicals, CO₂, alcohol foam or water spray.
- LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, auto-ignition or explosion.

Fire Hazards Explosive in the form of vapor when exposed to heat or flame. Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition, it emits acrid smoke and irritating fumes.

 Explosion Hazards Highly flammable liquid and vapor.

Section 6. Accidental Release Measures

Small Spill and Leak Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill and Leak Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Place in appropriate container and dispose of in accordance with regional regulations.

Section 7. Handling and Storage

Handling Handle and open container with care. Avoid all possible sources of ignition (spark or flame). After handling, always wash hands thoroughly with soap and water.

Storage Store and use away from heat, sparks, open flame, or any other ignition source. Keep away from sources of ignition. Keep away from incompatibles. Keep in a cool, well-ventilated place.

Section 8. Exposure Controls, Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eyes Splash goggles.

Body No special protective clothing is required.

Respiratory Organic vapour cartridge respirator.

Hands Gloves (impervious).

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State and Appearance</th>
<th>Liquid.</th>
<th>Odor</th>
<th>Alcohol (Slight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>32.04 g/mole</td>
<td>Taste</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH (1% Soln/Water)</td>
<td>7 [Neutral.]</td>
<td>Color</td>
<td>Colourless.</td>
</tr>
<tr>
<td>Boiling/Condensation Point</td>
<td>64.5°C (148.1°F)</td>
<td>Volatility</td>
<td>100% (v/v).</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>-98°C (-144°F)</td>
<td>Evaporation Rate</td>
<td>2.1 compared to Butyl acetate.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.79 (Water = 1)</td>
<td>Odor Threshold</td>
<td>2000 ppm</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>96 mm of Hg @ 20°C.</td>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>1.11 (Air = 1)</td>
<td>Solubility</td>
<td>Soluble in water, diethyl ether.</td>
</tr>
<tr>
<td>VOC Content</td>
<td>100 (%)</td>
<td>Other Properties</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

The Product is: Flammable.

Autoignition Temperature 385°C (725°F)

Flash Points CLOSED CUP: 11°C (51.8°F). (Tagliabue.)

Flammable Limits LOWER: 6% UPPER: 36%

Fire Hazards in Presence of Various Substances Highly flammable in presence of open flames and sparks, of heat, of combustible materials.

Continued on Next Page
# Section 10. Stability and Reactivity

**Stability**
The product is stable.

**Conditions of Instability**
Not available.

**Incompatibility with Various Substances**
Slightly reactive to reactive with oxidizing agents, acids, alkalis.

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# Section 11. Toxicological Information

**Routes of Entry**
Absorbed through skin. Inhalation. Ingestion.

**Toxicity to Animals**
- Acute oral toxicity (LD50): 5600-13000 mg/kg [Rat]
- Acute dermal toxicity (LD50): 15840 mg/kg [Rabbit]
- Acute toxicity of the vapor (LC50): 64000 ppm 4 hours [Rat]

**Acute Effects on Humans**

- **Eyes**
  Slightly hazardous in case of eye contact (irritant).

- **Skin**
  Very slightly to slightly dangerous in case of skin contact (irritant, permeator). Non-sensitizer for skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

- **Inhalation**
  Hazardous in case of inhalation.

- **Ingestion**
  Extremely dangerous in case of ingestion. May be fatal if swallowed. Ingestion may cause blindness.

**Chronic Effects on Humans**

- Very dangerous in case of ingestion.
- Slightly hazardous in case of skin contact (irritant).
- Non-sensitizer for skin.
- **CARCINOGENIC EFFECTS**: Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, None. by OSHA.
- **MUTAGENIC EFFECTS**: Not available.
- **TERATOGENIC EFFECTS**: Teratogenic in mice at levels below maternal toxicity.
- **DEVELOPMENTAL TOXICITY**: Fetoxic in mice at levels below maternal toxicity.
- Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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# Section 12. Ecological Information

**Ecotoxicity**
Not available.

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# Section 13. Disposal Considerations

**Waste Information**
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

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# Section 14. Transport Information

**TDG Classification (Canada)**
Class 3: Flammable liquid.
Class 6.1: Poisonous material.

**PIN (Canada)**
Shipping name: Methanol UNNA: UN 1230 PG: II

**Special Provisions for Transport (Canada)**
- **Exemption**: 500 ml as "Consumer Commodity".
- 1 L as "Consumer Commodity permit number SH0360".
  - **Labels required**: Flammable Liquid and orientation arrows.

**IMDG Classification**
3.2

**PIN**
Shipping name: Methanol UNNA: UN 1230 PG: II

**Marine Pollutant**
Not pollutant.

**DOT Classification (U.S.A)**
Class 3: Flammable liquid.
CLASS 6.1: Poisonous material.

**PIN**
Methanol, 3, 6.1, UN 1230, II, Not pollutant.

**Special Provisions for Transport (U.S.)**
- Containers of 1 L or less ship as:
  - **Class**: ORM-D
  - **Name**: Consumer Commodity

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*Continued on Next Page*
### Section 15. Other Regulatory Information and Pictograms

| WHMIS Classification (Canada) | CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).  
Class D-1B: Material causing immediate and serious toxic effects (TOXIC).  
Class D-2A: Material causing other toxic effects (VERY TOXIC).  
Class D-2B: Material causing other toxic effects (TOXIC). |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HCS Classification (U.S.A.)   | Class: Highly toxic.  
Class: Flammable liquid having a flash point lower than 37.8°C (100°F). |
| USA Regulatory Lists          | TSCA inventory: Methanol |
| **Hazardous Material Information System (U.S.A.)** | **Health** | 1 | **National Fire Protection Association (U.S.A.)** |
|                               | **Flammability** | 3 |
|                               | **Reactivity**  | 0 |
|                               | **Personal Protection** | G |
|                               | **Specific Hazard** | |

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Specific Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

### Section 16. Other Information


**Notice to Reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.