Section 1. Chemical Product and Company Identification

Trade Name: **Arsenic Test 1**  
*(Meth Kit Red Phosphorous Test 1)*

Manufacturer: Haztech Systems, Inc.  
PO Box 929  
Mariposa, CA  95338

Commercial Name: Mercuric chloride in methanol

Synonyms of Ingredients:  
Mercury bichloride, Calochlor  
Wood alcohol, Methanol; Methylol; Wood Spirit; Carbinol

Chemical Formula: HgCl2, CH3OH

Supplier: Spectrum Chemical Mfg. Corp.  
14422 S. San Pedro St.  
Gardena, CA  90248

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m3)</th>
<th>STEL</th>
<th>CEIL (mg/m3)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercuric chloride</td>
<td>7487-94-7</td>
<td>0.05</td>
<td></td>
<td>0.15</td>
<td>-5%</td>
</tr>
<tr>
<td>Methyl alcohol</td>
<td>67-56-1</td>
<td>260</td>
<td></td>
<td>325</td>
<td>-95%</td>
</tr>
</tbody>
</table>

Exposure Limits

Toxicological Data on Ingredients:  
Mercuric chloride: ORAL (LD50): Acute: 1 mg/kg (Rat.). DERMAL (LD50): Acute: 41 mg/kg (Rat.).
Methyl alcohol: ORAL (LD50): Acute: 5628 mg/kg (Rat.). DERMAL (LD50): Acute: 15800 mg/kg (Rabbit).

Section 3. Hazards Identification

Potential Acute Health Effects: Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects: Very hazardous in case of skin contact (permeator).

CARCINOGENIC EFFECTS: Classified A5 (Not suspected for human.) by ACGIH. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Classified POSSIBLE for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE]. The substance is toxic to kidneys, nervous system, gastrointestinal tract, eyes. The substance may be toxic to blood, kidneys, lungs, the reproductive system, liver, heart, brain, cardiovascular system, skin, central nervous system (CNS), pancreas. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Section 4. First Aid Measures

Eye Contact
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention.

Skin Contact
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion
Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Section 5. Fire and Explosion Data

Flammability
Flammable.

Auto-Ignition Temperature
464°C (867.2°F)

Flash Point
CLOSED CUP: 12°C (53.6°F). OPEN CUP: 16°C (60.8°F).

Flammable Limits
LOWER: 6% UPPER: 36.5%

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

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

Explosion Hazards in Presence of Various Substances
Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions
Flammable liquid, soluble or dispersed in water.
SMALL FIRE: Use DRY chemical powder.

Special Remarks on Fire Hazards
CAUTION: MAY BURN WITH NEAR INVISIBLE FLAME. Explosive when mixed with Choroform + sodium methoxide and diethyl zinc. It boils violently and explodes. When heated to decomposition it emits toxic fumes.

Section 6. Accidental Release Measures

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

Section 7. Handling and Storage

Precautions
Keep away from sources of accidental ignition. Do not ingest. Do not breathe gas/fumes/vapor/spray. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage
Keep in HazCat Kit.

Section 8. Exposure Controls/Personal Protection

Engineering Controls
Use in a well ventilated area.

Personal Protection
Gloves and goggles.
Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State and Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Not available</td>
</tr>
<tr>
<td>pH (1% Solution in Water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>1.11 (Air = 1)</td>
</tr>
<tr>
<td>Volatility</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Water/Oil Dist. Coeff.</td>
<td>Not available</td>
</tr>
<tr>
<td>Ionicity (in Water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Dispersion Properties</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Easily soluble in cold water, hot water, methanol, diethyl ether.</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
<tr>
<td>Taste</td>
<td>Not available</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Product is stable.</td>
</tr>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Not available.</td>
</tr>
<tr>
<td>Incompatibility with Various Substances</td>
<td>Highly reactive with oxidizing agents.</td>
</tr>
</tbody>
</table>

Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route of Entry</td>
<td>Dermal contact. Eye contact. Inhalation. Ingestion. Absorbed through skin.</td>
</tr>
<tr>
<td>Toxicity to Animals</td>
<td>Mercuric chloride: Acute oral toxicity (LD50): 1 mg/kg (Rat). Acute dermal toxicity (LD50): 41 mg/kg (Rat).</td>
</tr>
<tr>
<td>Chroine Effects on Humans</td>
<td>CARCINOGENIC EFFECTS: Classified A5 (Not suspected for human.) by ACGIH. TERATOGENIC EFFECTS: Classified POSSIBLE for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE].The substance is toxic to kidneys.</td>
</tr>
<tr>
<td>Other Toxic Effects on Humans</td>
<td>Very hazardous in case of skin contact (irritant, permeator), ingestion, inhalation. Causes damage to the following organs: lungs, mucous membranes the nervous system, gastrointestinal tract, eyes. May cause damage to the following organs: blood, kidneys, lungs, the reproductive system, liver, heart, brain, cardiovascular system, skin, central nervous system (CNS), pancreas.</td>
</tr>
<tr>
<td>Special Remarks on Toxicity to Animals</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special Remarks on Chronic Effects on Humans</td>
<td>Excreted in maternal milk in animal.</td>
</tr>
<tr>
<td>Special Remarks on Other Toxic Effects on Humans</td>
<td>Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract.</td>
</tr>
</tbody>
</table>

Section 12. Ecological Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecotoxicity</td>
<td>Not available.</td>
</tr>
<tr>
<td>BOD5 and COD</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of Biodegradation</td>
<td>Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.</td>
</tr>
<tr>
<td>Toxicity of the Products of Biodegradation</td>
<td>The products of degradation are more toxic.</td>
</tr>
<tr>
<td>Special Remarks on the Products of Biodegradation</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
Section 13. Disposal Considerations

Waste Disposal
Recycle to process, if possible. Consult your local or regional authorities.

Section 14. Transport Information

DOT Classification
CLASS 3: Flammable liquid

Identification
Flammable liquids, toxic, nos, (Methanol, Mercuric Chloride), 3, UN1992, II. Marine Pollutant

Special Provisions for Transport

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations
- Pennsylvania RTK: Mercuric chloride
- Massachusetts RTK: Mercuric chloride
- TSCA 8(b) inventory: Mercuric chloride
- SARA 302/304/311/312 extremely hazardous substances: Mercuric chloride
- SARA 313 toxic chemical notification and release reporting: Mercuric chloride
- CERCLA: Hazardous substances: Mercuric chloride
- Rhode Island RTK hazardous substances: Methyl alcohol
- Pennsylvania RTK: Methyl alcohol
- Minnesota: Methyl alcohol
- Massachusetts RTK: Methyl alcohol
- New Jersey: Methyl alcohol
- California Directors List of Hazardous Substances (8CCR 339): Methyl alcohol
- TSCA 8(b) inventory: Methyl alcohol
- SARA 313 toxic chemical notification and release reporting: Methyl alcohol
- CERCLA: Hazardous substances: Methyl alcohol: 5000 lbs. (2268 kg)
- Pennsylvania RTK: Mercuric chloride
- Massachusetts RTK: Mercuric chloride
- TSCA 8(b) inventory: Mercuric chloride
- SARA 313 toxic chemical notification and release reporting: Mercuric chloride
- CERCLA: Hazardous substances: Mercuric chloride
- Rhode Island RTK hazardous substances: Methyl alcohol
- Pennsylvania RTK: Methyl alcohol
- Minnesota: Methyl alcohol
- Massachusetts RTK: Methyl alcohol
- New Jersey: Methyl alcohol
- California Directors List of Hazardous Substances (8CCR 339): Methyl alcohol
- TSCA 8(b) inventory: Methyl alcohol
- SARA 313 toxic chemical notification and release reporting: Methyl alcohol
- CERCLA: Hazardous substances: Methyl alcohol: 5000 lbs. (2268 kg)

California Proposition 65 Warnings
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Mercuric chloride

Other Regulation
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other classifications
WHMIS (Canada) CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).
CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).
CLASS D-2B: Material causing other toxic effects (TOXIC).


Section 16. Other Information

Part Number(s)
RE2008, RE2089

References
Not available.

Other Special Considerations
Not available.

Validated by
R. Houghton 10/9/02

Verified by
R. Turkington

Call 1-800-543-5487

Notice to Reader
All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user’s responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Haztech Systems, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.