MATERIAL SAFETY DATA SHEET
TRIM SOL®

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name TRIM SOL®
Material type Water miscible cutting and grinding fluid concentrate
Classification/synonym(s) Chemical emulsion/Soluble oil
Product use Coolant and lubricant in metal removal processes
Manufacturer address MASTER CHEMICAL CORPORATION
501 West Boundary
Perrysburg, OH 43551-1263
Emergency telephone 419-874-7902 Fax number 419-874-0684

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA PEL</th>
<th>ACGIH TLV (mist)</th>
<th>OTHER LIMITS</th>
<th>CAS #</th>
<th>% RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>petroleum oil</td>
<td>5mg/m³ (mist)</td>
<td>5mg/m³ (mist)</td>
<td>none</td>
<td>8002-05-9</td>
<td>30-40</td>
</tr>
</tbody>
</table>

The exact chemical identities and percentages of the raw materials used in TRIM SOL® are trade secrets. This information is being withheld as provided for in the Occupational Safety and Health Administration’s Hazard Communication Rule (29 CFR 1910.1200).

3. HAZARDS IDENTIFICATION

Emergency overview Dark green liquid
No immediate hazard
Fire may produce CO, CO₂, HCl, SO₂

POTENTIAL HEALTH EFFECTS

Acute effects of overexposure
Eye Contact Transient irritation
Skin Contact Possible defatting, nonirritant, nonsensitizer
Inhalation Nontoxic
Ingestion Nontoxic
Skin Absorption Nontoxic

Chronic effects of overexposure
None currently known

Product/Ingredients listed as carcinogen or potential carcinogen? NTP Annual Report No IARC Monographs No OSHA No

Page 1 of 5 (TRIM SOL®)
Signs and symptoms of exposure  None
Medical conditions generally aggravated by exposure  None known

4. FIRST AID MEASURES

Emergency and first aid procedures

Eyes  Flush immediately with cool, clean water for at least 15 minutes
Skin  Wash with mild soap and warm water
Inhalation  Remove to fresh air
Ingestion  If large quantities are ingested, contact a physician

In every case get medical attention as required

5. FIRE FIGHTING MEASURES

Flash point (test method)  > 230°F (> 110°C) (CCC) None (TCC)  > 212°F (> 100°C) (COC)
Flammable limits  Not determined

Extinguishing media  As appropriate for the surrounding fire: water (float with water), dry chemical, CO₂ or "alcohol" foam

Special fire fighting procedures  None  Unusual fire and explosion hazards  None

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled  Mop up or use dry absorbent

7. HANDLING AND STORAGE

Precautions to be taken in handling and storing  Avoid contact with eyes. Avoid prolonged or repeated skin contact with the concentrate. Wash thoroughly after handling. Do not swallow.

Other precautions  Refer to Data and Information Sheet or container labels.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection  None
   (Specify type)

Ventilation  Local exhaust  Not normally required
   Mechanical (General)  General room ventilation should be sufficient
   Special  None
   Other  None

Protective gloves  None

Other protective equipment  None

Eye protection  Safety glasses

Exposure limits  None established by ACGIH or OSHA for product as whole
   Refer to Section 2

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance  Dark green viscous liquid
Odor  Mild pleasant odor
pH of concentrate  Not applicable
Typical operating pH (as range)  8.0-9.0
Vapor pressure (psi)  <1
Vapor density (Air =1)  Not determined
Boiling point (at 760 mm Hg)  207°F (97°C)
Freezing point  Not applicable
Solubility in water  100%
Specific gravity (H₂O =1)  0.99
Percent volatile by volume  18.48%
Evaporation rate (butyl acetate =1)  1

10. STABILITY AND REACTIVITY

Stability  Stable  Conditions to avoid  None
Incompatibility  Stable  (materials to avoid)
   Strong oxidizers, acids and alkalis
Hazardous combustion or  Thermal decomposition (fire) may produce CO, CO₂, SO₂
   decomposition products
Hazardous polymerization  Will not occur  Conditions to avoid  None
11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Study</th>
<th>Test Animal</th>
<th>Concentrate</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute inhalation toxicity</td>
<td>Rat</td>
<td>---</td>
<td>nontoxic ( LC_{50} &gt; 225\text{mg/l} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nontoxic</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( LD_{50} &gt; 5\text{g/kg} )</td>
<td></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>Rat</td>
<td>nontoxic</td>
<td>nontoxic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( LD_{50} &gt; 2\text{g/kg} )</td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>Rabbit</td>
<td>nontoxic</td>
<td>nontoxic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( LD_{50} &gt; 2\text{g/kg} )</td>
<td></td>
</tr>
<tr>
<td>Primary skin irritation</td>
<td>Rabbit</td>
<td>irritant</td>
<td>nonirritant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( \text{PDI index} = 6.75 )</td>
<td>( \text{PDI index} = 0.00 )</td>
</tr>
<tr>
<td>Primary eye irritation</td>
<td>Rabbit</td>
<td>irritant</td>
<td>nonirritant</td>
</tr>
<tr>
<td>Repeated insult patch</td>
<td>Human V.</td>
<td>---</td>
<td>possible defatting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>nonirritant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>nonsensitizer</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

**Waste disposal method** Must comply with local, state and federal regulations. If pre-treatment is needed, chemical treatment or ultrafiltration may be used. Contact Master Chemical Tech Line (1-800-537-3365) for assistance.

14. TRANSPORT INFORMATION

**Department of Transportation**

**DOT Hazard Class:** None

TRIM SOL® is not classified as a hazardous material by DOT.
15. REGULATORY INFORMATION

Resource Conservation and Recovery Act
EPA Hazardous Waste Number(s): None
TRIM SOL® is not classified as a hazardous waste by EPA.

Toxic Substances Control Act
All TRIM SOL® ingredients are listed on the TSCA Inventory of Chemical Substances.

Superfund Amendments and Reauthorization Act of 1986
TRIM SOL® does not contain any Section 302/304 Extremely Hazardous Substances or Section 313 Toxic Chemicals.

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Index</th>
<th>NFPA RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentrate</td>
<td></td>
</tr>
<tr>
<td>(Health)</td>
<td>H = 1</td>
</tr>
<tr>
<td>(Fire)</td>
<td>F = 1</td>
</tr>
<tr>
<td>(Reactivity)</td>
<td>R = 0</td>
</tr>
<tr>
<td>(Personal Protection)</td>
<td>PP = A (safety glasses)</td>
</tr>
</tbody>
</table>

Typical Working Solution

<table>
<thead>
<tr>
<th>H = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>F = 0</td>
</tr>
<tr>
<td>R = 0</td>
</tr>
<tr>
<td>PP = A (safety glasses)</td>
</tr>
<tr>
<td>Special hazards = none</td>
</tr>
</tbody>
</table>

Key 0 = minimal 1 = slight 2 = moderate 3 = serious 4 = severe
This information is intended solely for the use of individuals trained in the particular system.

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