1. IDENTIFICATION

Product Identifier

Product Name MP Delimer Descaler

Other Means of Identification

Product Code 345500

Recommended use of the Chemical and Restrictions on Use

Recommended Use Delimer Concentrate. For industrial use.

Details of the Supplier of the Safety Data Sheet

Midlab, Inc.
140 Private Brand Way
Athens, TN 37303

Emergency Telephone Number

Company Phone Number Phone: 1-423-337-3180
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Green

Physical State Liquid

Odor None

Classification

Acute toxicity - Inhalation (Dusts/Mists) Category 3
Skin corrosion/irritation Category 1 Sub-category B
Serious eye damage/eye irritation Category 1

Signal Word

Danger

Hazard Statements

Toxic if inhaled.
Causes severe skin burns and eye damage.

Precautionary Statements - Prevention

Use only outdoors or in a well-ventilated area.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.
SPECIFIC TREATMENT: Remove from exposure and treat symptoms.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

Hazards Not Otherwise Classified (HNOC)
May be harmful if swallowed.

Other Hazards
Toxic to aquatic life with long lasting effects.
Toxic to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>60-100</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>15-40</td>
</tr>
</tbody>
</table>

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret**

4. FIRST-AID MEASURES

First Aid Measures

General Advice
Immediately call a POISON CENTER or doctor/physician.

Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Contact lenses should be discarded.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately.

Ingestion
IF SWALLOWED: call a poison control center or physician immediately. Never give anything by mouth to an unconscious person. Rinse mouth. Drink plenty of water. Do not induce vomiting.

Most Important Symptoms and Effects

Symptoms
Causes severe skin burns and eye damage.

Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician
May aggravate pre-existing skin disorders. Any lung condition may be aggravated.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray (fog). Carbon dioxide (CO2). Dry chemical. Foam.

Unsuitable Extinguishing Media
Not determined.

Specific Hazards Arising from the Chemical
Product is not flammable.

Hazardous Combustion Products
Normal products of combustion.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Use personal protection recommended in Section 8.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13, Disposal Considerations, for additional information.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so. For large spills, dike far ahead of liquid spill for later disposal.

Methods for Clean-Up Contain and collect with an inert absorbent and place into an appropriate container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Use personal protection recommended in Section 8. Wash face, hands, and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. For Industrial or professional use only.

Conditions for Safe Storage, including any Incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep from freezing. Protect from excessive heat. Keep out of the reach of children.


8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>STEL: 3 mg/m³</td>
<td>TWA: 1 mg/m³</td>
<td>IDLH: 1000 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA: 1 mg/m³</td>
<td>(vacated) TWA: 1 mg/m³</td>
<td>TWA: 1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>(vacated) STEL: 3 mg/m³</td>
<td></td>
<td>(vacated) STEL: 3 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection Wear goggles or chemical safety glasses. For Industrial or professional use only.

Skin and Body Protection Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure.

Respiratory Protection Avoid breathing vapors. No respiratory protection is necessary during normal use conditions. In the case of insufficient ventilation or if exposure limits are exceeded, use a suitable NIOSH/MSHA respiratory device.

General Hygiene Considerations Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling.
### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on Basic Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Green</td>
<td>Odor: None</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>&lt;1</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>~ 0 °C / 32 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>~ 100 °C / 212 °F</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>None</td>
<td>Tag Closed Cup</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Liquid-not applicable</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.18</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Completely soluble</td>
<td>@ 25 °C (77 °F)</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

**Reactivity**  
Not reactive under normal conditions.

**Chemical Stability**  
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**  
None under normal processing.

**Hazardous Polymerization**  
Hazardous polymerization does not occur.

**Conditions to Avoid**  
Elevated temperatures. Keep from freezing. Reacts with incompatible materials.

**Incompatible Materials**  

**Hazardous Decomposition Products**  
When exposed to fire, produces normal products of combustion.

### 11. TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

**Product Information**

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Contact</td>
<td>Causes severe eye damage.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Causes severe skin burns.</td>
</tr>
</tbody>
</table>
Inhalation  Toxic if inhaled. Avoid breathing vapors or mists.

Ingestion  May be harmful if swallowed. Do not taste or swallow.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>= 1530 mg/kg (Rat)</td>
<td>= 2730 mg/kg (Rabbit)</td>
<td>&gt; 850 mg/m³ (Rat) 1 h</td>
</tr>
</tbody>
</table>

Information on Physical, Chemical and Toxicological Effects

Symptoms  Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure

Carcinogenicity  This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Chronic Toxicity  Chronic exposure may cause liver, kidney and/or blood disorders.

Numerical Measures of Toxicity  Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity  Toxic to aquatic life with long lasting effects.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>-</td>
<td>3 - 3.5: 96 h Gambusia affinis mg/L LC50</td>
<td>-</td>
<td>4.6: 12 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>

Persistence/Degradability  Not determined

Bioaccumulation  Not determined

Mobility  Not considered mobile

Other Adverse Effects  Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes  Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging  Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

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14. TRANSPORT INFORMATION

Note
Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT
UN3264, Corrosive Liquid, Acidic, Inorganic, NOS (Containing Phosphoric Acid), 8 PG II

IATA

IMDG

15. REGULATORY INFORMATION

International Inventories
Canada – Domestic Substances List (DSL) All ingredients are listed or exempt.
TSCA (Toxic Substances Control Act) All ingredients are listed or exempt.

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

CERCLA

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>5000 lb</td>
<td>RQ 5000 lb final RQ</td>
<td></td>
</tr>
<tr>
<td>7664-38-2</td>
<td></td>
<td>RQ 2270 kg final RQ</td>
<td></td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes
Reactive Hazard Yes

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>5000 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>7664-38-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>State List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>MA, NJ, PA</td>
</tr>
<tr>
<td>7664-38-2</td>
<td></td>
</tr>
</tbody>
</table>

AZ – Arizona Ambient Air Quality Guidelines
CT – Connecticut Hazardous Air Pollutants
CA – California Director’s List of Hazardous Substances
CAP65 – California Prop 65
FL – Florida Substances List
ID – Idaho Non-Carcinogen Toxic Air Pollutants
IL – Illinois Toxic Air Contaminate- Carcinogenic
MA – Massachusetts Right to Know List
MN – Minnesota Hazardous Substances List
NJ – New Jersey Right to Know List
PA – Pennsylvania Right to Know List
RI – Rhode Island Hazardous Substances List
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>0</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

| Issue Date | 08-Aug-2011 |
| Revision/Review Date: | 03-Aug-2018 |
| Revision Note | Version 1.1 Updated Section 3 |

Disclaimer
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.

Keep Out of Reach of Children. For Industrial and Institutional Use Only.

*Denotes changes from last version.

End of Safety Data Sheet