1. IDENTIFICATION

Product Identifier
Product Name: Maxim Liquid Metal Safe Dishmachine Detergent

Other Means of Identification
Product Code: 323000

Recommended use of the Chemical and Restrictions on Use
Recommended Use: Dishmachine Detergent 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: Colorless
Physical State: Liquid
Odor: Characteristic

Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>1 Sub-category B</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>1</td>
</tr>
</tbody>
</table>

Signal Word
Danger

Hazard Statements
Causes severe skin burns and eye damage.

Precautionary Statements - Prevention
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
Immediately call a POISON CENTER or doctor/physician.
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

Precautionary Statements - Storage
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>30-60</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>10-30</td>
</tr>
<tr>
<td>Tetrapotassium Pyrophosphate</td>
<td>7320-34-5</td>
<td>10-30</td>
</tr>
<tr>
<td>Sodium Silicate</td>
<td>1344-09-8</td>
<td>10-30</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>7681-52-9</td>
<td>1-5</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. Dilute remaining residue with water and neutralize with dilute acetic acid (vinegar).

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. 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.

Incompatible Materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Hydroxide</td>
<td>Ceiling: 2 mg/m³</td>
<td>(vacated) Ceiling: 2 mg/m³</td>
<td>Ceiling: 2 mg/m³</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td></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.
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>Colorless</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>13.5-14.0</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></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>1.39</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
Oxygen when exposed to copper, nickel, cobalt, iron or iron compounds. Chlorine gas when exposed to acid.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure
Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation 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>Water</td>
<td>&gt; 90 mL/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>214 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tetrapotassium Pyrophosphate</td>
<td>-</td>
<td>&gt; 4640 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Sodium Silicate</td>
<td>1153 mg/kg (Rat)</td>
<td>&gt; 4640 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>8200 mg/kg (Rat)</td>
<td>&gt; 10000 mg/kg (Rabbit)</td>
<td>-</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 The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hypochlorite</td>
<td>Group 3</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

IARC (International Agency for Research on Cancer)
Group 3 IARC components are “not classifiable as human carcinogens”

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>Potassium Hydroxide</td>
<td>-</td>
<td>80: 96 h Gambusia affinis mg/L LC50 static</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tetrapotassium Pyrophosphate</td>
<td>-</td>
<td>100: 96 h Oncorhynchus mykiss mg/L LC50</td>
<td>-</td>
<td>100: 48 h water flea mg/L EC50</td>
</tr>
<tr>
<td>Sodium Silicate</td>
<td>-</td>
<td>301: 478: 96 h Lepomis macrochirus mg/L LC50 3185: 96 h Brachydanio rerio mg/L LC50 semi-static</td>
<td>-</td>
<td>216: 96 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>
Sodium Hypochlorite 7681-52-9

0.095: 24 h Skeletonema costatum mg/L EC50

0.06 - 0.11: 96 h Pimephales promelas mg/L LC50 flow-through 4.5 - 7.6: 96 h
Pimephales promelas mg/L LC50 static 0.4 - 0.8: 96 h
Lepomis macrochirus mg/L LC50 static 0.28 - 1: 96 h
Lepomis macrochirus mg/L LC50 flow-through 0.05 - 0.771: 96 h
Oncorhynchus mykiss mg/L LC50 flow-through 0.03 - 0.19: 96 h
Oncorhynchus mykiss mg/L LC50 semi-static 0.18 - 0.22: 96 h
Oncorhynchus mykiss mg/L LC50 static 0.18 - 0.22: 96 h
Daphnia magna mg/L EC50 0.033 - 0.044: 48 h
Daphnia magna mg/L EC50 Static 2.1: 96 h

Persistence/Degradability
Not determined

Bioaccumulation
Not determined

Mobility

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Hydroxide 1310-58-3</td>
<td>0.83</td>
</tr>
</tbody>
</table>

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>Potassium Hydroxide 1310-58-3</td>
<td>Toxic Corrosive</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

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

DOT
UN3266, Corrosive Liquid, Basic, Inorganic, NOS (Containing Potassium Hydroxide), 8, PG II

IATA

IMDG

15. REGULATORY INFORMATION

International Inventories

TSCA
Listed

Legend:
### 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>Potassium Hydroxide</td>
<td>1000 lb</td>
<td></td>
<td>RQ 1000 lb final RQ RQ 454 kg final RQ</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>100 lb</td>
<td></td>
<td>RQ 100 lb final RQ RQ 45.4 kg final RQ</td>
</tr>
<tr>
<td>7681-52-9</td>
<td></td>
<td></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>Potassium Hydroxide</td>
<td>1000 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>100 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>7681-52-9</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>Potassium Hydroxide</td>
<td>MA, NJ, PA</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>MA, NJ, PA</td>
</tr>
<tr>
<td>7681-52-9</td>
<td></td>
</tr>
</tbody>
</table>

AZ – Arizona Ambient Air Quality Guidelines     IL – Illinois Toxic Air Contaminate - Carcinogenic
CT – Connecticut Hazardous Air Pollutants      MA – Massachusetts Right to Know List
CA – California Director’s List of Hazardous Substances MN – Minnesota Hazardous Substances List
CAP65 – California Prop 65                    NJ – New Jersey Right to Know List
FL – Florida Substances List                  PA – Pennsylvania Right to Know List
ID – Idaho Non-Carcinogen Toxic Air Pollutants 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>3</td>
<td>0</td>
<td>1</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 08-Aug-2011
Revision Date: 26-Jan-2014
Revision Note: New format  Version 1.0

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