1. IDENTIFICATION

Product Identifier
Product Name: Causti-Clean

Other Means of Identification
Product Code: 067000

Recommended use of the Chemical and Restrictions on Use
Recommended Use: Heavy duty caustic cleaner. 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: Dark Brown
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</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>1</td>
</tr>
<tr>
<td>Corrosive to metals</td>
<td>1</td>
</tr>
</tbody>
</table>

Signal Word
Danger

Hazard Statements
Causes severe skin burns and eye damage.
May be corrosive to metals.

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.
Keep only in original container.

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: rinse mouth. Do NOT induce vomiting.
SPECIFIC TREATMENT: Remove from exposure and treat symptoms.
IN CASE OF SPILL: Absorb spillage to prevent material damage.
Precautionary Statements - Storage
Store locked up.
Store in corrosive resistant container with a resistant inner liner.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

### 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>40-70</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>30-60</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>1.5</td>
</tr>
<tr>
<td>Sodium Glucoheptonate</td>
<td>31138-65-5</td>
<td>1.5</td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>64-02-8</td>
<td>0.5-1.5</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**

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.

**Skin Contact**
Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse.

**Inhalation**
Remove to fresh air. Seek immediate medical attention/advice.

**Ingestion**
Rinse mouth. Do not induce vomiting. Drink plenty of water. Seek medical advice.

**Most important Symptoms and Effects**

**Symptoms**
Exposed individuals may experience eye tearing, redness and discomfort. Contact may cause irritation and redness.

**Indication of any Immediate Medical Attention and Special Treatment Needed**

**Notes to Physician**
Treat symptomatically.

### 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**
None known.

**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

Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up
Collect in a clean, dry waste container for disposal. Dispose of in accordance with federal, state and local regulations. Use a water rinse for final clean up.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling
Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice.

Conditions for Safe Storage, including any Incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep locked up and out of reach of children. Protect from freezing.

Incompatible Materials
Acids.

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>Sodium Hydroxide 1310-73-2</td>
<td>Ceiling: 2 mg/m³</td>
<td>TWA: 2 mg/m³</td>
<td>IDLH: 10 mg/m³</td>
</tr>
<tr>
<td>Potassium Hydroxide 1310-58-3</td>
<td>Ceiling: 2 mg/m³</td>
<td>(vacated) Ceiling: 2 mg/m³</td>
<td>Ceiling: 2 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

Engineering Controls
General ventilation sufficient.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection
Splash goggles or safety glasses.

Skin and Body Protection
Chemical resistant protective gloves.

Respiratory Protection
Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

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>Dark Brown</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>&gt;12.5</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>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>
Evaporation Rate                  Not determined
Flammability (Solid, Gas)        n/a-liquid
Upper Flammability Limits       Not determined
Lower Flammability Limit         Not determined
Vapor Pressure                   Not determined
Vapor Density                    Not determined
Specific Gravity                 1.39
Water Solubility                 Completely soluble
Solubility in other solvents     Not determined
Partition Coefficient            Not determined
Auto-ignition Temperature        Not determined
Decomposition Temperature        Not determined
Kinematic Viscosity              Not determined
Dynamic Viscosity                Not determined
Explosive Properties             Not determined
Oxidizing Properties             Not determined

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.

Conditions to Avoid
Keep out of reach of children. Keep from freezing.

Incompatible Materials
Acids. Uncontrolled contact with water.

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

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                       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>Sodium Hydroxide</td>
<td></td>
<td>= 1350 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>1310-73-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td></td>
<td>= 214 mg/kg (Rat)</td>
<td>-</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td></td>
<td>= 10 g/kg (Rat)</td>
<td>-</td>
</tr>
<tr>
<td>64-02-8</td>
<td></td>
<td></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
This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical Measures of Toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

<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>Sodium Hydroxide 1310-73-2</td>
<td>-</td>
<td>45.4: 96 h Oncorhynchus mykiss mg/L LC50 static</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Potassium Hydroxide 1310-58-3</td>
<td>-</td>
<td>80: 96 h Gambusia affinis mg/L LC50 static</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tetrasodium EDTA 64-02-8</td>
<td>1.01: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>41: 96 h Lepomis macrochirus mg/L LC50 static 59.8: 96 h Pimephales promelas mg/L LC50 static</td>
<td>610: 24 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
</tbody>
</table>

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility
Not determined.

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>Sodium Hydroxide 1310-73-2</td>
<td>Toxic</td>
</tr>
<tr>
<td>Potassium Hydroxide 1310-58-3</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
UN3266, Corrosive Liquid, Basic, Inorganic, N.O.S. (Containing Sodium Hydroxide, Potassium Hydroxide), 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
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<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>Sodium Hydroxide</td>
<td>1000 lb</td>
<td></td>
<td>RQ 1000 lb final RQ</td>
</tr>
<tr>
<td>1310-73-2</td>
<td></td>
<td></td>
<td>RQ 454 kg final RQ</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1000 lb</td>
<td></td>
<td>RQ 1000 lb final RQ</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td>RQ 454 kg final RQ</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

Acute Health 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)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1000 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1310-73-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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>
</tbody>
</table>

US State Regulations

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>State List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>MA, NJ, PA</td>
</tr>
<tr>
<td>1310-73-2</td>
<td></td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>NJ, MA, PA</td>
</tr>
<tr>
<td>1310-58-3</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 Contaminant: 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

IL – Illinois
MA – Massachusetts
MN – Minnesota
NJ – New Jersey
PA – Pennsylvania
RI – Rhode Island
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>3</td>
<td></td>
<td>0</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 15-Dec-16
Revision Date: 15-Dec-16
Revision Note: 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