SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier
Product Name ALKALINE COIL CLEANER
Other means of identification SDS # ACC
UN/ID No UN3266
Other Information Package type: Quart, Gallon, Pail or Drum.

Recommended use of the chemical and restrictions on use
Recommended Use Cleaning and brightening aluminum finned cooling and heating coils.
Restrictions on Use For professional use only. Product is a concentrate and should be diluted prior to use.

Details of the supplier of the safety data sheet
Manufacturer Address
Atlantic Chemical & Equipment Company
3471 Atlanta Industrial Parkway
Suite 200
Atlanta, GA 30331 USA

Emergency telephone number
Company Phone Number 404-505-6626
1-800-929-2436
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification
Skin corrosion/irritation Category 1 Sub-category B
Serious eye damage/eye irritation Category 1

Signal word Danger

Hazard statements
Causes severe skin burns and eye damage
Appearance  Clear blue liquid  Physical state  Liquid  Odor  Herbal

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: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage
Store locked up
Keep containers tightly closed in a dry, cool and well-ventilated place

Precautionary Statements - Disposal
Dispose of in accordance with federal, state and local regulations

Hazards not otherwise classified (HNOC)
May be harmful if swallowed
May be harmful in contact with skin

Other Information
• Harmful to aquatic life with long lasting effects
• Harmful 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>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>&lt;20</td>
</tr>
<tr>
<td>Sodium metasilicate pentahydrate</td>
<td>10213-79-3</td>
<td>&lt;5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First aid measures
Inhalation  Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately.
Eye contact: Immediately flush with plenty of water for up to 15 minutes. Immediate medical attention is required.

Ingestion: Drink plenty of water. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Seek medical attention immediately.

Skin Contact: Neutralize with very diluted vinegar solution, wash with soap and water, apply skin cream. For large burns - GET IMMEDIATE MEDICAL ATTENTION.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Inhalation may cause irritation to nasal passages. Severe burns to exposed skin. Nausea. Blindness may occur.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Not determined.

**Specific hazards arising from the chemical** Avoid mixing with acids and soft metals.

**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. Wear impervious to strong alkaline protective clothing.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protective equipment as required. Wash thoroughly after handling.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so. Neutralize with water and vinegar.

**Methods for cleaning up** For small spills: wash to drain after product is neutralized. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

### 7. HANDLING AND STORAGE

**Precautions for safe handling**
Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing. Wash face, hands and any exposed skin thoroughly after handling. Avoid mixing with acids and soft metals. Use personal protection recommended in Section 8.

**Conditions for safe storage, including any incompatibilities**
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 (vacated) Ceiling: 2 mg/m³</td>
<td>IDLH: 10 mg/m³ Ceiling: 2 mg/m³</td>
</tr>
<tr>
<td>Sodium metasilicate pentahydrate 10213-79-3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Controls
If vapors are detected, ventilate work area by opening windows and using exhaust fans. Always work with wind from behind.

Individual protection measures, such as personal protective equipment

Eye/face protection
Use tight fitting, splash proof safety goggles. Contact lenses should not be worn when handling this material. Face Mask.

Skin and body protection
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear protective Neoprene™ gloves.

Respiratory protection
Use an approved NIOSH HE respirator fluoride.

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

Physical state: Liquid
Appearance: Clear liquid
Color: Blue
Odor: Herbal
Odor threshold: Not determined

Property | Values | Remarks • Method |
--- | --- | --- |
pH | 13.5 | |
Melting point/freezing point | Not determined | |
Boiling point/boiling range | Not determined | |
Flash point | Not determined | |
Evaporation rate | Not determined | |
Flammability (solid, gas) | Not determined | |
Flammability Limits in Air
  Upper flammability limits | Not determined | |
  Lower flammability limit | Not determined | |
Vapor pressure | Not determined | |
Vapor density | Not determined | |
Specific Gravity | 1.18 | |
Water solubility | Not determined | |
Solubility in other solvents | Not determined | |
Partition coefficient | Not determined | |
Autoignition temperature | Not determined | |
Decomposition temperature | Not determined | |
Kinematic viscosity | Not determined | |
Dynamic viscosity | Not determined | |
10. STABILITY AND REACTIVITY

Reactivity
This product will warm slightly with the addition of water.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
Product will react violently with the addition of incompatible materials.

Conditions to avoid
Incompatible materials. Keep out of reach of children.

Incompatible materials

Hazardous Decomposition Products
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation
May cause irritation to the mucous membranes and upper respiratory tract.

Eye contact
Causes severe eye damage.

Skin Contact
Causes severe skin burns. May be harmful in contact with skin.

Ingestion
May be harmful if swallowed.

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 7732-18-5</td>
<td>&gt; 90 mL/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sodium hydroxide 1310-73-2</td>
<td>-</td>
<td>1350 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Sodium metasilicate pentahydrate 10213-79-3</td>
<td>847 mg/kg (Rat)</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- Product
Not determined

The following values are calculated based on chapter 3.1 of the GHS document.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to microorganisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEmix (oral)</td>
<td>4327 mg/kg</td>
</tr>
<tr>
<td>ATEmix (dermal)</td>
<td>4288 mg/kg</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life Harmful to aquatic life with long lasting effects

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td>45.4: 96 h Oncorhynchus mykiss mg/L LC50 static</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>80: 96 h Gambusia affinis mg/L LC50 static</td>
<td></td>
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<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td></td>
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</table>

Persistence and 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.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
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<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>Toxic Corrosive</td>
</tr>
<tr>
<td>1310-73-2</td>
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</tbody>
</table>
14. TRANSPORT INFORMATION

DOT

<table>
<thead>
<tr>
<th>UN/ID No</th>
<th>UN3266</th>
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<tbody>
<tr>
<td>Proper shipping name</td>
<td>Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Disodium Trioxosilicate)</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>8</td>
</tr>
<tr>
<td>Packing Group</td>
<td>II</td>
</tr>
<tr>
<td>Reportable Quantity (RQ)</td>
<td>1000 lbs</td>
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</table>

IATA

<table>
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<tr>
<th>UN/ID No</th>
<th>UN3266</th>
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<tr>
<td>Proper shipping name</td>
<td>Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Disodium Trioxosilicate)</td>
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<tr>
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IMDG

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<th>UN3266</th>
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<td>Proper shipping name</td>
<td>Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Disodium Trioxosilicate)</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>8</td>
</tr>
<tr>
<td>Packing Group</td>
<td>II</td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

International Inventories

Legend:
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Acute health hazard</th>
<th>Yes</th>
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<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</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>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>
</tbody>
</table>

<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</td>
</tr>
<tr>
<td>1310-73-2</td>
<td></td>
<td></td>
<td>RQ 454 kg final</td>
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</tbody>
</table>
US State Regulations

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

### 16. OTHER INFORMATION

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

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>2</td>
<td></td>
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</table>

Issue Date 01-Jun-2012
Revision Date 19-Feb-2015
Revision Note Corrections

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.

End of Safety Data Sheet