1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name AC-13

Other means of identification
Product Code 221AC-13
UN/ID No. UN1791
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use No information available.
Uses advised against No information available

Manufacturer Address
Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

Emergency telephone number
Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification
Skin corrosion/irritation Category 1 Sub-category B
Serious eye damage/eye irritation Category 1
Corrosive to metals Category 1
Oxidizing liquids Category 2

Appearance aqueous solution
Physical state liquid
Odor Pungent Chlorine

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/Store away from clothing/combustible materials
Keep away from heat
Take any precaution to avoid mixing with combustibles.
Keep only in original container
Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
Specific treatment (see Section 4 on this label)
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
In case of fire: Use CO2, dry chemical, or foam for extinction
Absorb spillage to prevent material damage

Precautionary Statements - Storage
Store locked up
Store in a corrosive resistant container.

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

Hazards not otherwise classified (HNOC)
Other information
• Very toxic to aquatic life with long lasting effects
• Very toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite</td>
<td>7681-52-9</td>
<td>12.5</td>
<td>Trade Secret</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice
Immediate medical attention is required.

Eye contact
Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate medical attention.

Skin Contact
Wash off immediately with plenty of water. Call a physician. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Inhalation
Remove to fresh air. Administer oxygen if breathing is difficult. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Ingestion
Rinse mouth. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person.

Self-protection of the first aider
Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms
No information available.

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
No information available.

Specific hazards arising from the chemical
No information available.

Explosion data
- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

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
Evacuate personnel to safe areas. Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.

Environmental precautions
Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods for containment
Dike to collect large liquid spills.

Methods for cleaning up
Soak up with inert absorbent material. Clean contaminated surface thoroughly. Dike far ahead of liquid spill for later disposal. Take up mechanically, placing in appropriate containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers. Keep/store only in original container.

Incompatible materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Appropriate engineering controls
Showers
Eyewash stations
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

- **Eye/face protection**
  Wear safety glasses with side shields (or goggles).

- **Skin and body protection**
  Avoid contact with eyes, skin and clothing. If splashing or contact is anticipated, wear impervious protective clothing, as appropriate, to prevent skin contact.

- **Respiratory protection**
  If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations**
Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>aqueous solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>clear yellow</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Pungent Chlorine</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>13.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>-29 °C / -20 °F</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Boiling point/boiling range</strong></td>
<td>107 °C / 225 °F</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flammability Limit in Air</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>1.211</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water solubility</strong></td>
<td>Soluble in water</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Solubility in other solvents</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Autoignition temperature</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Kinematic viscosity</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dynamic viscosity</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>** Explosive properties**</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Softening point</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Molecular weight</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VOC Content (%)</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bulk density</strong></td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information  No data available
  
  Inhalation  No data available.
 Eye contact  Risk of serious damage to eyes. Avoid contact with eyes.
 Skin Contact  Avoid contact with skin. Causes burns.
 Ingestion  No data available.

<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 hypochlorite</td>
<td>= 8200 mg/kg (Rat)</td>
<td>&gt; 10000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>7681-52-9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms  No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation  Causes burns.
Serious eye damage/eye irritation  Risk of serious damage to eyes.
Corrosivity  Causes severe burns.
Sensitization  No information available.
Germ cell mutagenicity  No information available.
Carcinogenicity  No information available.

<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>-</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7681-52-9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive toxicity  No information available.
STOT - single exposure  No information available.
STOT - repeated exposure  No information available.
Aspiration hazard  No information available.

Numerical measures of toxicity - Product Information

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

Ecotoxicity

Toxic to aquatic life with long lasting effects

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite</td>
<td>0.095: 24 h Skeletonema costatum mg/L EC50</td>
<td>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</td>
<td>2.1: 96 h Daphnia magna mg/L EC50 0.033 - 0.044: 48 h Daphnia magna mg/L EC50 Static</td>
</tr>
<tr>
<td>7681-52-9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects
No information available

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
Do not reuse container.

14. TRANSPORT INFORMATION

DOT
- UN/ID No.: UN1791
- Proper shipping name: Hypochlorite solutions
- Hazardous ingredients: (Sodium Hypochlorite)
- Hazard Class: 8
- Packing Group: III
## 15. REGULATORY INFORMATION

### International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies/Does Not Comply</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

**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
- AICS - Australian Inventory of Chemical Substances

### US Federal Regulations

#### 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.

#### SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>Yes</td>
</tr>
<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>

### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

<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 hypochlorite 7681-52-9</td>
<td>100 lb</td>
<td>-</td>
<td>RQ 100 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 45.4 kg final RQ</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>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite 7681-52-9</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
End of Safety Data Sheet