Section 1 - Identification

Product Name: CHIEF (80002)

ITD, Inc.
ORENDA Brands
1827 Auger Drive
Tucker, GA 30084
770-939-5544

Emergency Phone:  800-535-5053

Product Use: A uniquely built alkaline true powdered soap. Blended with the finest surfactants available, this formulation covers a wide range of wash temperatures and provides the ultimate flexibility for multiple wash classifications.

Section 2 - Hazards Identification

GHS Ratings:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosive</td>
<td>1B</td>
<td>Destruction of dermal tissue: Exposure &lt; 1 hour Observation &lt; 14 days, visible necrosis in at least one animal</td>
</tr>
<tr>
<td>Eye corrosive</td>
<td>1</td>
<td>Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity &gt;= 3, Iritis &gt; 1.5</td>
</tr>
</tbody>
</table>

GHS Hazards

- H314 Causes severe skin burns and eye damage
- H318 Causes serious eye damage

GHS Precautions

- P260 Do not breathe dust/fume/gas/mist/vapours/spray
- P264 Wash hands thoroughly after handling
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P310 Immediately call a POISON CENTER or doctor/physician if you feel unwell after exposure of this product.
- P321 Specific treatment (see First Aid below or label)
- P363 Wash contaminated clothing before reuse
- P301+P330+P331 IF SWALLOWED: Call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
- P405 Store locked up
- P501 Dispose of contents/container in conformance with State, Local, and Federal regulations.

Signal Word: Danger
Section 3 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS number</th>
<th>Weight Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcined soda</td>
<td>497-19-8</td>
<td>30.00% - 60.00%</td>
</tr>
<tr>
<td>Disodium oxosilandiolate</td>
<td>6834-92-0</td>
<td>10.00% - 30.00%</td>
</tr>
<tr>
<td>Triphosphoric acid, sodium salt (1:5)</td>
<td>7758-29-4</td>
<td>10.00% - 30.00%</td>
</tr>
<tr>
<td>Nonylphenol, ethoxylated</td>
<td>127087-87-0-9</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>Ethoxylated alcohol phosphate</td>
<td>320349-01</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>Benzenesulfonic acid, Mono-C10-16-Alkyl Derivs., Sodium Salts</td>
<td>68081-81-2</td>
<td>1.00% - 5.00%</td>
</tr>
</tbody>
</table>

Section 4 - First Aid Measures

**INHALATION:** If inhalation of mists, vapors, or spray occurs and adverse effects result, remove to uncontaminated area. Evaluate ABC's (isAirway constricted, is Breathing occurring, and is blood Circulating) and treat symptomatically. GET MEDICAL ATTENTION IMMEDIATELY. There is no specific antidote, treat symptomatically.

**EYE CONTACT:** Immediately flush contaminated eyes with a directed stream of water for as long as possible. Remove contact lenses, if present and easy to do. Continue rinsing. GET MEDICAL ATTENTION IMMEDIATELY. Washing eyes within several seconds is essential to achieve maximum effectiveness.

**SKIN CONTACT:** Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with large amounts of water. GET MEDICAL ATTENTION IMMEDIATELY. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods.

**INGESTION:** If swallowed, do not induce vomiting. For definite or probable ingestion, do not administer oral fluids. If vomiting occurs spontaneously, keep airway clear. Monitor airway. Volume resuscitation (IV fluids) and circulatory support (CPR) may be required. Never give anything by mouth to an unconscious or convulsive person. GET MEDICAL ATTENTION IMMEDIATELY.

**Notes to Physician:** Medical observation and assessment is recommended for all ingestions, all eye exposures, and symptomatic inhalation and dermal exposures. For symptomatic ingestion, do not administer oral fluids and consider investigation by endoscopy, X-ray, or CT scan. Esophageal perforation, airway compromise, hypotension, and shock are possible. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. There is no antidote. Treatment is supportive care. Follow normal parameters for airway, breathing, and circulation. Surgical intervention may be required.

Section 5 - Fire Fighting Measures

**Flash Point:** 202 C (396 F)

**LEL:**

**UEL:**

**Fire Hazard:** Negligible fire hazard.

**Flash point:** Not flammable

**Extinguishing Media:** Use extinguishing agents appropriate for surrounding fire.

**Sensitivity to Mechanical Impact:** Not sensitive. **Sensitivity to Static Discharge:** Not sensitive. **GHS:Physical Hazards:** - Corrosive to Metals

**Hazardous Decomposition:** None Known

**Fire Fighting:** Move container from fire area if it can be done without risk. Cool containers with water. Avoid contact with skin. Do not apply water directly on this product. Heat is generated when mixed with water. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode.
Section 6 - Accidental Release Measures

**Personal Precautions:** Do not get in eyes, on skin or on clothing. Avoid breathing mist, vapor, or spray. Do not ingest. Wear appropriate personal protective equipment recommended in Section 8 of the SDS.

**Methods and Materials for Containment and Cleaning Up:** In case of spill or leak, stop the leak as soon as possible, if safe to do so. Completely contain spilled materials with dikes, sandbags, etc. Shovel dry material into suitable container. Liquid material may be removed with a vacuum truck. Remaining material may be diluted with water and neutralized with dilute acid, then absorbed and collected. Flush spill area with water, if appropriate.

**Environmental Precautions:** Keep out of water supplies and sewers. Do not flush into surface water or sanitary sewer system. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Releases should be reported, if required, to appropriate agencies.

Section 7 - Handling & Storage

**Handling Procedures:** Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not ingest. Do not eat, drink or smoke in areas where this material is used. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS. NEVER add water to product. When mixing, slowly add to water to minimize heat generation and spattering.

**Storage Conditions:** Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances (see Section 10 of SDS).

Section 8 - Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name / CAS No.</th>
<th>OSHA Exposure Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Other Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcined soda 497-19-8</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Disodium oxosilane diolate 6834-92-0</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Triphosphoric acid, sodium salt (1:5) 7758-29-4</td>
<td>TWA 15mg/m3 total dust TWA 5mg/m3 respirable dust as Particulates not otherwise classified (PNOC)</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Nonylphenol, ethoxylated 127087-87-0-9</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Ethoxylated alcohol phosphate 320349-01</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
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<tr>
<td>Benzenesulfonic acid, Mono-C10-16-Alkyl Derivs., Sodium Salts 68081-81-2</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

**ENGINEERING CONTROLS:**
Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

**Respiratory Protection:** An approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. If eye irritation occurs, a full face style mask should be used. A respiratory protection program that meets applicable regulatory requirements must be followed whenever
workplace conditions warrant use of a respirator.

PERSONAL PROTECTIVE EQUIPMENT:
Eye Protection: Wear chemical safety goggles with a faceshield to protect against eye and skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Skin and Body Protection: Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Contaminated clothing should be removed, then discarded or laundered.
Hand Protection: Wear appropriate chemical resistant gloves
Protective Material Types: Natural rubber, Neoprene, Nitrile, Polyvinyl chloride (PVC), Tyvek, Tychem.

Respiratory Protection: A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. If eye irritation occurs, a full face style mask should be used. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

HYGIENE MEASURES: Handle in accordance with good industrial hygiene and safety practices. Wash hands and affected skin immediately after handling, before breaks, and at the end of the workday. When using do not eat or drink. When using do not smoke.

Section 9 - Physical & Chemical Properties

<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>100 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Complete</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition coefficient: n-</td>
<td>N/A</td>
</tr>
<tr>
<td>octanol/water</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>pH</td>
<td>13+</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Upper/lower flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Auto-Ignition temperature</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10 - Stability & Reactivity

Reactivity/ Stability: Stable at normal temperatures and pressures.
Conditions to Avoid: Mixing with water, acid, or incompatible materials may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces.

STABLE
Incompatibilities:

None Known
Strong Oxidizing agents, Strong Acids
Reactivity
No decomposition if used and stored according to specifications. Possibility of hazardous reactions. Reacts with metals forming hydrogen.
Reacts with alkali (lyes). Conditions to avoid To avoid thermal decomposition do not overheat.

Hazardous Decomposition:

Carbon Monoxide and other toxic vapors
None Known
This product may yield sulfur dioxide and oxides of sulfur.

Oxides of Sodium, Oxides of Phosphorus
Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Mixture Toxicity
Oral Toxicity LD50: 2,170mg/kg
Dermal Toxicity LD50: 3,337mg/kg

Component Toxicity
497-19-8 Calcined soda
Oral LD50: 2,300 mg/kg (Rat)  Dermal LD50: 2,004 mg/kg (Rabbit)
6834-92-0 Disodium oxosilaneolate
Oral LD50: 1,280 mg/kg (RAT)  Dermal LD50: 5,000 mg/kg (RAT)
7758-29-4 Triphosphoric acid, sodium salt (1:5)
Oral LD50: 3,120 mg/kg (Rat)  Dermal LD50: 4,640 mg/kg (Rabbit)
127087-87-0-9 Nonylphenol, ethoxylated
Oral LD50: 3,314 mg/kg (Rat)  Dermal LD50: 3,050 mg/kg (Rabbit)

ACUTE TOXICITY:
The severity of the tissue damage is a function of its concentration, the length of tissue contact time, and local tissue conditions. After exposure there may be a time delay before irritation and other effects occur. This material is a strong irritant and is corrosive to the skin, eyes, and mucous membranes. This material may cause severe burns and permanent damage to any tissue with which it comes into contact. Inhalation will cause severe irritation, possible burns with pulmonary edema, which may lead to pneumonitis. Skin contact with this material may cause severe irritation and corrosion of tissue. Repeated exposure may cause dermatitis. Eye contact can cause severe irritation, corrosion with possible corneal damage and blindness. Ingestion may cause irritation, corrosion/ulceration, nausea, and vomiting.

CARCINOGENICITY: This product is not classified as a carcinogen by NTP, IARC or OSHA.

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>% Weight</th>
<th>Carcinogen Rating</th>
</tr>
</thead>
</table>

Section 12 - Ecological Information

ECOTOXICITY DATA:
Aquatic Toxicity: This material has exhibited moderate toxicity to aquatic organisms. Data provided are for sodium hydroxide.

Fish Toxicity:
LC50 Brook trout: 25 ppm/ 24 hr
LC50 King salmon: 48 ppm

Invertebrate Toxicity:
LC50 Daphnia magna: 100 ppm
LC50 Shrimp: 33 - 100 ppm/48 hr
LC50 Cockle: 330 - 1000 ppm/48 hr
FATE AND TRANSPORT:

BIODEGRADATION: This material is inorganic and not subject to biodegradation.

PERSISTENCE: This material is alkaline and may raise the pH of surface waters with low buffering capacity. This material is believed to exist in the disassociated state in the environment.

BIOCONCENTRATION: This material is not expected to bioconcentrate in organisms.

ADDITIONAL ECOLOGICAL INFORMATION: This material has exhibited slight toxicity to terrestrial organisms.

Component Ecotoxicity

Section 13 - Disposal Considerations

Waste from material: Reuse or reprocess, if possible. Dispose in accordance with all applicable regulations. May be subject to disposal regulations: U.S. EPA 40 CFR 261. Hazardous Waste Number(s): D002.

Section 14 - Transportation Information

<table>
<thead>
<tr>
<th>Agency</th>
<th>Proper Shipping Name</th>
<th>UN Number</th>
<th>Packing Group</th>
<th>Hazard Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>Compound, Cleaning Solid, (Not Regulated)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

- None

Section 16 - Other Information

Hazardous Material Information System (HMIS)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
<th>PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HMIS & NFPA Hazard Rating

Legend

* = Chronic Health Hazard
0 = INSIGNIFICANT
1 = SLIGHT
2 = MODERATE
3 = HIGH

National Fire Protection Association (NFPA)

Flammability

Health

Instability

Special

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

Reviewer Revision

Date Prepared: 10/16/2015