Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Swisher Bio San
Product code: 42088-1
Reference number(s): 42088-5
UN/ID No: UN1791
Recommended Use: Sanitizer
EPA Registration Number: 550-197-72802

Distributor:
Swisher Hygiene Inc.
4725 Piedmont Row Drive,
Suite 400,
Charlotte, NC 28210

Chemical Emergency Phone Number: 800-424-9300 (Chemtrec)
Company Emergency Phone Number: 800-444-4138

2. HAZARDS IDENTIFICATION

Emergency Overview:
Causes severe irritation to eyes, skin, and mucous membranes.

Appearance: Clear Liquid
Physical state: liquid.
Odor: Pungent, Chlorine

Potential Health Effects:

Acute toxicity:
- Eyes: Severe irritation and burning
- Skin: Reddening, eczema
- Inhalation: Bronchial irritation, cough, difficulty breathing
- Ingestion: Irritation of membranes of the mouth, throat, and stomach pain and possible ulceration

Chronic Effects: No known effect based on information supplied

Aggravated Medical Conditions: None known.

Environmental hazard: See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
## 4. FIRST AID MEASURES

### Eye contact
Flush eyes with cool water for 15-30 minutes and get immediate medical attention.

### Skin contact
Flush with water. Remove contaminated clothing and do not re-wear until washed. If irritation persists, see a physician.

### Inhalation
Move to fresh air. If irritation persists, see a physician.

### Ingestion
Drink water or milk. DO NOT INDUCE VOMITING. DO NOT USE BAKING SODA OR ACIDIC ANTIDOTES. Get medical attention immediately.

### Notes to physician
Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

### Flammable Properties
Not flammable

### Flash point
N/A

### Suitable Extinguishing Media
Dry chemical Water spray Alcohol-resistant foam

### Explosion Data
- Sensitivity to Mechanical Impact: none
- Sensitivity to Static Discharge: none

### Specific hazards arising from the chemical
Can be decomposed by heat or acid. Chlorine gas is a strong fire promoter.

### 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

### NFPA
- Health Hazard: 0
- Flammability: 0
- Stability: 0

### HMIS
- Health Hazard: 2
- Flammability: 0
- Physical Hazard: 1

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions
Ensure adequate ventilation

### Environmental precautions
Try to prevent the material from entering drains or water courses

### Methods for Containment
Stop leak. Reduce spilled material with bisulfites or ferrous salt solutions (some heat will result). Keep solution alkaline to neutral. Dilute with large quantities of water.

### Methods for cleaning up
Pick up and transfer to properly labeled containers

## 7. HANDLING AND STORAGE

### Advice on safe handling
KEEP OUT OF REACH OF CHILDREN CAUTION Keep container tightly closed when not in use Wash hands before eating.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Review Section 3 & 4 for Exposure Guidelines.

Engineering Measures

Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment Institutional Environment

Eye/Face Protection
Safety glasses are suggested when using this product in heavy use and institutional environments.

Skin and body protection
Impervious rubber, alkali-proof protective gloves

Respiratory protection
Unnecessary in open institutional environment.

Hygiene measures
Practice good personal hygiene. Wash after handling.

Personal Protective Equipment Industrial Environment

Eye/Face Protection
Splash-proof chemical goggles or face shield.

Skin and body protection
Impervious rubber, alkali-proof protective gloves, Impervious rubber boots & apron.

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.

Hygiene measures
Practice good personal hygiene. Wash after handling. Shower at end of work period.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear Liquid</td>
<td>Odor</td>
<td>Pungent Chlorine</td>
</tr>
<tr>
<td>Color</td>
<td>Pale yellow/green</td>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>11.5-12.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>210 °F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>upper flammability limit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower flammability limit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosion Limits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>upper</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>ND</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Stability
unstable

Incompatible products  Acids Ammonia Urea Nickel Copper Oxidizable material Tin

Conditions to Avoid  None known based on information supplied

Hazardous Decomposition Products  Hypochlorous Acid (HOCl) Chlorine Hydrochloric Acid (HCl)

Hazardous Polymerization  Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product Information  Irritation to mucous membranes. Very little hazard from properly stored solution.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite</td>
<td>8200 mg/kg (Rat)</td>
<td>10000 mg/kg (Rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Chronic toxicity

<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>
</tbody>
</table>

Target Organ Effects  None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
</table>
13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
Neutralized, diluted material may be flushed to sewer

Contaminated packaging
Do not re-use empty containers

14. TRANSPORT INFORMATION

Note
UN1791, Hypochlorite solution, 8, PG III

Dot
Regulated
Proper shipping name
UN1791, Hypochlorite solution, 8, PG III
Hazard class
8
UN/ID No
UN1791
Packing Group
III

TDG
Not regulated

MEX
Not regulated

ICAO
Not regulated

ICAO/IATA
Not regulated

IMDG / IMO
Not regulated

RID
Not regulated

ADR/RID
Not regulated

ADN
Not regulated

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
</tr>
</tbody>
</table>
U.S. Federal Regulations

SARA 313

SARA TITLE III (EPCRA) NOTIFICATION: Does not contain chemicals subject to the reporting requirements of Section 302, 304, or 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA) NOTIFICATION: Sodium Hypochlorite

For more information, consult 40 CFR parts 302, 355, 370, 372, and 40 CFR part 68.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>no</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>

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).

<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 hypochlorite</td>
<td>100 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

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>Extremely Hazardous Substances RQs</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations
International Regulations

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

Prepared By  Swisher Hygiene Inc.
4725 Piedmont Row Drive
Suite 400
Charlotte, NC 28210

Issuing date  11-Oct-2011
Revision Date  28-Nov-2011
Revision Note  No information available

Disclaimer

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Material Safety Data Sheet