### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** OMNI® LITHIUM HYPOCHLORITE  
**Product Use Description:** Recreational Water Product  
**Chemical nature:** Hypochlorite  
**Registration number:** 5185-323-10305  
**Company:**  
Manufacturer  
Asepsis, Inc.  
OMNI POOL PRODUCTS  
P.O. Box 1788  
Suwanee, GA  
30024-0973  
Telephone: (800) 959-7946

**Emergency telephone number:**  
CHEMTREC: (24 hours) 800-424-9300, 703-527-3887  
Poison Control Center (Medical): (877) 800-5553  
For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

**Prepared by:** Product Safety Department  
06/22/2011  
(US) +1 866-430-2775  
+011-886-2-2712-5668  
MSDSRequest@chemtura.com

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

**Danger**

<table>
<thead>
<tr>
<th>Form</th>
<th>Colour</th>
<th>Odour</th>
</tr>
</thead>
<tbody>
<tr>
<td>granular</td>
<td>white</td>
<td>Chlorine</td>
</tr>
</tbody>
</table>

**Hazard Summary**  
Corrosive  
Oxidizer  
Causes serious eye damage.  
Causes skin burns.  
May be fatal if swallowed.  
May be harmful if inhaled.  
Causes respiratory tract irritation.  
Avoid breathing dust or vapor.  
Do not get in eyes, on skin, or on clothing.

**OSHA Hazards**  
Potential Health Effects

Primary Routes of Entry:
- Inhalation
- Skin contact
- Eye contact
- Ingestion

Aggravated Medical Condition:
- Respiratory disorders
- Skin disorders

Inhalation:
- Harmful if inhaled.
- Causes respiratory tract irritation.

Skin:
- Causes skin burns.
- On contact with moisture, this material readily hydrolyzes to acid which may result in burns if not promptly removed.

Eyes:
- Causes serious eye damage.

Ingestion:
- May be fatal if swallowed.

Chronic Exposure:
- Prolonged inhalation of excessive levels of dust may cause lung damage.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

<table>
<thead>
<tr>
<th>Component / CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>lithium hypochlorite 13840-33-0</td>
<td>28 - 35 %</td>
</tr>
<tr>
<td>sodium sulphate 7757-82-6</td>
<td>10.9 - 20.7 %</td>
</tr>
<tr>
<td>lithium chloride 7447-41-8</td>
<td>2 - 4 %</td>
</tr>
<tr>
<td>lithium carbonate 554-13-2</td>
<td>1.3 - 3.7 %</td>
</tr>
<tr>
<td>Chloric acid, lithium salt, hydrate (3:1) 36355-96-1</td>
<td>2.6 - 4.4 %</td>
</tr>
<tr>
<td>lithium hydroxide 1310-65-2</td>
<td>1.2 - 2.1 %</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

First aid procedures

Inhalation:
- Remove to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a POISON CENTER or doctor/physician.

Skin contact:
- Remove contaminated clothing and shoes.
- Rinse immediately with plenty of water for at least 15 minutes.
- Call a POISON CENTER or doctor/physician.
Eye contact  : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
Call a POISON CENTER or doctor/physician.

Ingestion  : Call a physician or poison control centre immediately.
Have person sip a glass of water if able to swallow.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Do not give anything by mouth to a convulsing or unconscious person.

Notes to physician
Treatment  : Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5. FIRE-FIGHTING MEASURES

Flammable properties
Flash point  : Remarks: not applicable
Ignition temperature  : Remarks: Not Available

Fire fighting
Suitable extinguishing media  : Flood with large volumes of water.
Unsuitable extinguishing media
ABC powder
Dry chemical
Risk of violent reaction.
Further information  : May cause or intensify fire; oxidiser.
Contact with combustible material may cause fire.
When in contact with other combustible materials, this product may increase the burning rate of the combustible material.

Protective equipment and precautions for firefighters
Special protective equipment for fire-fighters  : In the event of fire, wear self-contained breathing apparatus.
Thoroughly decontaminate fire fighting equipment including all fire fighting wearing apparel after the incident.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions  : Do not flush into surface water or sanitary sewer system.
Methods for containment / Methods for cleaning up
Using appropriate protective clothing and safety equipment, contain spilled material.
Do not add water to spilled material.
Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean dry containers for disposal.
Do not close containers containing wet or damp material. They should be left open to disperse any hazardous gases that may form.
Additional advice: Do not use floor sweeping compounds to clean up spills. Do not transport wet or damp material. Treat recovered material as described in the section "Disposal considerations". Do not contaminate water, food or feed by storage or disposal or cleaning of equipment.

SECTION 7. HANDLING AND STORAGE

Handling
Handling procedures: Strong oxidizing agent.
Avoid breathing dust.
Avoid breathing vapors.
Avoid contact with skin, eyes and clothing.
Do not mix with other chemicals.
Mix only with water.
Never add water to this product.
Always add product to large quantities of water.
Use only clean and dry utensils.
Do not add this product to any dispensing devices containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion.
Contamination with moisture, organic matter or other chemicals may start a chemical reaction and generate heat, hazardous gas, possible fire and explosion.
In case of contamination or decomposition, do not reseal container.
If possible, isolate container in open air or well ventilated area.
Flood with large volumes of water.
Wash hands thoroughly with soap and water after handling and before eating, drinking or using tobacco.
Do not handle until all safety precautions have been read and understood.

Storage
Requirements for storage areas and containers:
Store in original container.
Store in a cool, dry, well ventilated area away from heat or open flame.
For bags: Store dry product in its original unopened bag until use. For partially used bags, fold over top of bag and secure with adhesive tape.
Keep out of reach of children.
Keep away from animals.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components / CAS-No.</th>
<th>Value / Basis / Update</th>
<th>Control parameters</th>
<th>Further information</th>
</tr>
</thead>
<tbody>
<tr>
<td>lithium hydroxide 1310-65-2</td>
<td>CEIL, US WEEL, 2008-01-01</td>
<td>1 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures
Engineering measures: Use with adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye protection: Goggles
              Safety glasses with side-shields

Hand protection: Wear rubber gloves.

Respiratory protection: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Hygiene measures: Wash contaminated clothing before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: granular
Colour: white
Odour: Chlorine

Safety data
Flash point: Note: not applicable
Ignition temperature: Remarks: Not Available
Oxidizing properties: Note: Oxidizer
pH: 11
   at 77 °F (25 °C)
   Note: 1% Solution
Melting point/range: 275 °F (135 °C)
   Note: Decomposes
Boiling point/boiling range: Note: not applicable
Water solubility: 430 g/l

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid: Remarks: High temperatures.
                      Poor ventilation.
                      Contamination
                      Moisture/high humidity.
Materials to avoid:
Remarks: Avoid contact with water on concentrated material in the container. Avoid contact with easily oxidizable material; ammonia, urea, or similar nitrogen containing compounds; inorganic reducing compounds; floor sweeping compounds; chlorinated isocyanurates; other swimming pool/spa chemicals in their concentrated form; acids. Avoid contact with all other chemicals.

Hazardous decomposition products:
Note: Chlorine containing gases can be produced.
Oxygen

Hazardous reactions:
Hazardous polymerisation does not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity: LD50: 555 mg/kg
Species: rat

Acute inhalation toxicity: LC50: 2.0 mg/l
Species: rat
Remarks: Direct contact with wet material or moist skin may cause severe irritation, pain and possibly burns.

Acute dermal toxicity: LD50: 8,100 mg/kg
Species: rabbit

Skin irritation:
Remarks: Non-corrosive, Corrositex In-Vitro Skin Corrosion (34.6% lithium hypochlorite)

Eye irritation:
Species: rabbit
Result: Severe eye irritation

Sensitisation:
Remarks: This product is not expected to be a skin sensitizer.

Repeated dose toxicity
lithium chloride:
Species: rat
Application Route: Oral

lithium carbonate:
Species: rat, males
Application Route: Oral
Exposure time: (21 d)

CMR effects
lithium chloride:
Teratogenicity: No effects on or via lactation
Reproductive toxicity: No toxicity to reproduction

lithium carbonate:
Mutagenicity: Animal testing did not show any mutagenic effects.
Reproductive toxicity: No toxicity to reproduction
12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish:
- LC50: 0.69 mg/l
  Exposure time: 96 h
  Species: Oncorhynchus mykiss (rainbow trout)
- LC50: 0.97 mg/l
  Exposure time: 96 h
  Species: Lepomis macrochirus (Bluegill sunfish)

Toxicity to daphnia and other aquatic invertebrates:
- LC50: 0.37 mg/l
  Exposure time: 48 h
  Species: Daphnia magna (Water flea)

Toxicity to bacteria:
- Sodium sulphate: 770 mg/l
  Exposure time: 17 h
  Species: Bacteria

Bioaccumulation

Sodium sulphate:
- Bioconcentration factor (BCF): 0.5
- Remarks:
  Bioaccumulation is unlikely.

Lithium chloride:
- Remarks:
  Bioaccumulation is unlikely.

Biodegradability

Lithium chloride:
- Result: According to the results of tests of biodegradability this product is not readily biodegradable.

Further information on ecology

Additional ecological information:
- Toxic to fish.
- Toxic to aquatic organisms.
- Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
SECTION 13. DISPOSAL CONSIDERATIONS

Further information: Dispose of waste material in compliance with all federal, state, and local regulations. Improper disposal of excess product, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. For registered pesticides, contact your State Pesticide Agency. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction or fire. Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging: Do not re-use empty containers. Rinse thoroughly before discarding in trash. Offer rinsed packaging material to local recycling facilities.

SECTION 14. TRANSPORT INFORMATION

DOT
UN number: 1479
Description of the goods: Oxidizing solid, n.o.s.
(LITHIUM HYPOCHLORITE, MIXTURE)
Class: 5.1
Packing group: III
Labels: 5.1
Emergency Response Guidebook Number: 140
Environmentally hazardous: yes

IATA
UN number: 1479
Description of the goods: Oxidizing solid, n.o.s.
(LITHIUM HYPOCHLORITE, MIXTURE)
Class: 5.1
Packing group: III
Labels: 5.1
Environmentally hazardous: no

IMDG
UN number: 1479
Description of the goods: OXIDIZING SOLID, N.O.S.
(LITHIUM HYPOCHLORITE, MIXTURE)
Class: 5.1
Packing group: III
Labels: 5.1
EmS Number 1: F-A
EmS Number 2: S-Q
Material Safety Data Sheet
OMNI® LITHIUM HYPOCHLORITE

Version: 1.0  Revision Date: 06/22/2011  Print Date: 03/03/2012

Marine pollutant: no
Environmentally hazardous: no

Not recommended for shipment by air
Limited Quantity exemption possible
ORM-D Consumer Commodity exemption possible

SECTION 15. REGULATORY INFORMATION

OSHA Hazards: This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

SARA 311/312 Hazards: Acute Health Hazard
Reactivity Hazard

EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO - KNOW

Massachusetts Right To Know Components: sodium sulphate 7757-82-6Toxic chemical release substances. 52 fr 21152 (6/4/87). Subject to SARA Title III.
lithium carbonate 554-13-2

Pennsylvania Right To Know Components: sodium sulphate 7757-82-6Toxic chemical release substances. 52 fr 21152 (6/4/87). Subject to SARA Title III.

New Jersey Right To Know Components: lithium hypochlorite 13840-33-0
lithium carbonate 554-13-2

The components of this product are reported in the following inventories:
TSCA
Note: Listed

SECTION 16. OTHER INFORMATION

Further information
HMIS Classification: Health hazard: 3
Flammability: 0
Physical hazards: 1
PPI: Ask supervisor or safety specialist for handling instructions
Health hazard: 3
Fire Hazard: 0
Reactivity Hazard: 1
Specific hazards: OX Class 1 Oxidizer.

Other Emergency Phone Number

<table>
<thead>
<tr>
<th>Country</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>Brazil +55 113 711 9144</td>
</tr>
<tr>
<td></td>
<td>All other countries +44 (0) 1235 239 670</td>
</tr>
<tr>
<td>Mexico</td>
<td>+52 555 004 8763</td>
</tr>
</tbody>
</table>

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