

Material Safety Data Sheet

OMNI® LITHIUM HYPOCHLORITE

Version: 1.0

Revision Date: 06/22/2011

Print Date: 03/03/2012

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
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06/22/2011

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SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Danger

Form: granular Colour: white Odour: Chlorine

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 : THIS MATERIAL IS HAZARDOUS UNDER THE CRITERIA OF THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD 29CFR 1910.1200.

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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

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

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.

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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.

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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

Components / CAS-No.	Value / Basis / Update	Control parameters	Further information
lithium hydroxide 1310-65-2	CEIL US WEEL 2008-01-01	1 mg/m3	

Engineering measures

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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.

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- 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

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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.

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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 : 140
Guidebook Number :
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

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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 7757-82-6 Toxic 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 7757-82-6 Toxic 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

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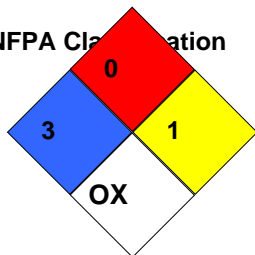
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NFPA Classification



: Health hazard: 3
Fire Hazard: 0
Reactivity Hazard: 1
Specific hazards: OX Class 1
Oxidizer.

Other Emergency Phone Number

<u>Latin America:</u>	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
<u>Mexico:</u>		+52 555 004 8763

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.