

Material Safety Data Sheet



LIQUID-90

1. Product and company identification

Trade name of product : LIQUID-90
Product use : Cleaning product

Product dilution information : Up to 1.5 oz/2 gal or 5.9 mL/L in water

Supplier's information : Ecolab Inc. Food & Beverage Division
370 N. Wabasha Street
St. Paul, MN 55102
1-800-392-3392

Code : 951228-01

Date of issue : 30-September-2010

EMERGENCY HEALTH INFORMATION: 1-800-328-0026
Outside United States and Canada CALL 1-651-222-5352 (in USA)

2. Hazards identification

Product AS SOLD
Physical state : Liquid.
Emergency overview : DANGER!

CAUSES DIGESTIVE TRACT, EYE AND SKIN BURNS.
CAUSES RESPIRATORY TRACT IRRITATION.
Do not ingest. Do not get in eyes, on skin or on clothing. Avoid breathing vapors, spray or mists. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Product AT USE DILUTION

Liquid.
CAUTION !

No specific hazard.

No specific hazard.

Potential acute health effects

Product AS SOLD
Eyes : Corrosive to eyes.
Skin : Corrosive to the skin.
Inhalation : Severely irritating to the respiratory system.
Ingestion : Causes burns to mouth, throat and stomach.

Product AT USE DILUTION

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

See toxicological information (section 11)

3. Composition/information on ingredients

Product AS SOLD

Name	CAS number	% by weight
SODIUM HYDROXIDE	1310-73-2	10
sodium hypochlorite	7681-52-9	3

Product AT USE DILUTION

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting, in accordance with local regulations.

4. First aid measures

	Product AS SOLD	Product AT USE DILUTION
Eye contact	: In case of contact, immediately flush eyes with cool running water. Remove contact lenses and continue flushing with plenty of water for at least 15 minutes. Get medical attention immediately.	No known effect after eye contact. Rinse with water for a few minutes.
Skin contact	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.	No known effect after skin contact. Rinse with water for a few minutes.
Inhalation	: If inhaled, remove to fresh air. If exposed person is not breathing, give artificial respiration or oxygen applied by trained personnel. Get medical attention.	No special measures required. Treat symptomatically.
Ingestion	: If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.	Get medical attention if symptoms occur.

5. Fire-fighting measures

Product AS SOLD

Hazardous thermal decomposition products : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 halogenated compounds
 metal oxide/oxides

Fire-fighting media and instructions : Use an extinguishing agent suitable for the surrounding fire.

Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

In a fire or if heated, a pressure increase will occur and the container may burst.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

	Product AS SOLD	Product AT USE DILUTION
Personal precautions	: Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see section 8). Do not touch or walk through spilled material.	Use personal protective equipment as required.
Environmental precautions	: Avoid contact of spilled material and runoff with soil and surface waterways.	Avoid contact of large amounts of spilled material and runoff with soil and surface waterways.
Methods for cleaning up	: Follow company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see section 8). Absorb/neutralize liquid material. Use a tool to scoop up solid or absorbed material and put into appropriate labeled container. Use a water rinse for final clean-up.	Use a water rinse for final clean-up.

7. Handling and storage

Handling	Product AS SOLD
	: Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Storage	Product AS SOLD
	: Keep out of reach of children. Store in a closed container. Keep container tightly closed. Do not store above the following temperature: 40°C

Product AT USE DILUTION
Wash thoroughly after handling.

Keep out of reach of children.

8. Exposure controls/personal protection

Engineering measures	Product AS SOLD
	: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.
Personal protection	
Eyes	: Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.
Hands	: Use chemical-resistant, impervious gloves.
Skin	: Use synthetic apron, other protective equipment as necessary to prevent skin contact.
Respiratory	: Wear appropriate respirator when ventilation is inadequate and occupational exposure limits are exceeded.

Product AT USE DILUTION
Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

No protective equipment is needed under normal use conditions.

No protective equipment is needed under normal use conditions.

No protective equipment is needed under normal use conditions.

No special protection is required.

Ingredient	Exposure limits
SODIUM HYDROXIDE	ACGIH TLV (United States, 2/2010). C: 2 mg/m ³
chlorine	OSHA PEL (United States, 11/2006). TWA: 2 mg/m ³ 8 hour(s).
	ACGIH TLV (United States, 2/2010). STEL: 2.9 mg/m ³ 15 minute(s).
	STEL: 1 ppm 15 minute(s).
	TWA: 1.5 mg/m ³ 8 hour(s).
	TWA: 0.5 ppm 8 hour(s).
	OSHA PEL (United States, 11/2006). CEIL: 3 mg/m ³ CEIL: 1 ppm

9. Physical and chemical properties

Physical state	Product AS SOLD	
	: Liquid.	
	Flash point	: > 100°C
	Color	: Yellow. [Light]
	Odor	: chlorine
	pH	: 13.2 [Conc. (% w/w): 100%]
Relative density	: 1.18	

Product AT USE DILUTION
Liquid.
> 100°C
Colorless.
Faint odor. [Slight]
11.8 to 12.4

10. Stability and reactivity

Product AS SOLD

- Stability** : The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
- Reactivity** : Extremely reactive or incompatible with the following materials: acids. Mixing this product with acid or ammonia releases chlorine gas.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Potential acute health effects

- Product AS SOLD**
- Eyes** : Corrosive to eyes.
- Skin** : Corrosive to the skin.
- Inhalation** : Severely irritating to the respiratory system.
- Ingestion** : Causes burns to mouth, throat and stomach.

Product AT USE DILUTION

No known significant effects or critical hazards.

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No known significant effects or critical hazards.

Product AS SOLD

Other adverse effects

- Target organs** : Contains material which may cause damage to the following organs: lungs, upper respiratory tract.

12. Ecological information

- Ecotoxicity** : Not reported

13. Disposal considerations

- Product AS SOLD**
- Waste disposal** : Avoid disposal. Attempt to use product completely in accordance with intended use. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Product AT USE DILUTION

Diluted product can be flushed to sanitary sewer. Discard empty container in trash.

- RCRA classification** : Unused product is D002 (Corrosive)

14. Transport information

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

Product AS SOLD

- DOT Classification** UN1824
- DOT Proper shipping name** Sodium hydroxide solution
- Class** 8
- Packing group** II

For transport in bulk or using IMDG regulations, see shipping documents for specific transportation information.

Product AT USE DILUTION

Not intended for transport.

15. Regulatory information

Product AS SOLD

HCS : Corrosive material
 Classification : Target organ effects

Product AS SOLD

U.S. Federal regulations

TSCA 8(b) inventory : All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No listed substance

SARA 302/304 emergency planning and notification: No listed substance

SARA 313 Product name CAS number Concentration

Form R - Reporting : No listed substance
 requirements

California Prop. 65 : No listed substance

Product AT USE DILUTION

Not regulated.

16. Other information

Product AS SOLD

Hazardous Material :
 Information System (U.S.A.)

Health	*	3
Flammability		0
Physical hazards		0

National Fire Protection :
 Association (U.S.A.)



Product AT USE DILUTION

Health		
Flammability		
Physical hazards		



Date of issue : 30-September-2010

Responsible name : Regulatory Affairs
 1-800-352-5326

☑ Indicates information that has changed from previously issued version.

Notice to reader

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.