

Material Safety Data Sheet

ENFORCE LP



1. Product and company identification

Trade name of product : ENFORCE LP
Product use : Cleaning product

Product dilution information : Up to 5 oz/gal or 39 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 : 937292-02

Date of issue : 14-October-2011

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 RESPIRATORY TRACT, DIGESTIVE TRACT, EYE AND SKIN BURNS.
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.

Potential acute health effects

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

See toxicological information (Section 11)

Product AT USE DILUTION

Liquid.
CAUTION !

MAY CAUSE EYE AND SKIN IRRITATION.

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Product AT USE DILUTION

Moderately irritating to eyes.
Moderately irritating to the skin.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

3. Composition/information on ingredients

Product AS SOLD

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
SODIUM HYDROXIDE	1310-73-2	10
sodium hypochlorite	7681-52-9	3
COCAMINE OXIDE	61788-90-7	1 - 5
SODIUM XYLENE SULFONATE	1300-72-7	1 - 5

Product AT USE DILUTION

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
SODIUM HYDROXIDE	1310-73-2	<1

3. Composition/information on ingredients

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.	In case of contact, immediately flush eyes with plenty of water. Remove contact lenses and flush again. Get medical attention if irritation persists.
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.	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation persists. Wash clothing before reuse. Clean shoes thoroughly before reuse.
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 immediately.	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
sulfur oxides
halogenated compounds
metal oxide/oxides

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

Dike area of fire to prevent runoff.

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	Product AT USE DILUTION Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
	: 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 out of reach of children. Keep container tightly closed. Store between the following temperatures: 0 and 50°C	

8. Exposure controls/personal protection

Engineering measures	Product AS SOLD	Product AT USE DILUTION Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
	: 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.	Eye protection should be used when splashing may occur.
Hands	: Use chemical-resistant, impervious gloves.	For prolonged or repeated handling, use the following type of gloves: Impervious gloves.
Skin	: Use synthetic apron, other protective equipment as necessary to prevent skin contact.	No protective equipment is needed under normal use conditions.
Respiratory	: Wear appropriate respirator when ventilation is inadequate and occupational exposure limits are exceeded.	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, 6/2010). 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, 6/2010). CEIL: 3 mg/m ³ CEIL: 1 ppm

9. Physical and chemical properties

Physical state	Product AS SOLD	Product AT USE DILUTION Liquid.
	: Liquid.	
Flash point	Product AS SOLD	> 100°C
	: > 100°C Product does not support combustion.	
Color	: Yellow [Light]	Pale color
Odor	: chlorine	Faint odor [Slight]
pH	: 12 to 13 [Conc. (% w/w): 100%]	11.8 to 12.8
Boiling/condensation point	: 100°C (212°F)	

9. Physical and chemical properties

Relative density : 1.16 to 1.172

Dispersibility properties : Easily dispersible in the following materials: cold water and hot water.

Solubility : Easily soluble in the following materials: cold water and hot water.

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 : Reactive or incompatible with the following materials: organic materials and acids. Slightly reactive or incompatible with the following materials: metals. 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 : Corrosive to the respiratory system.

Ingestion : Causes burns to mouth, throat and stomach.

Product AT USE DILUTION

Moderately irritating to eyes.

Moderately irritating to the skin.

No known significant effects or critical hazards.

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: 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.

RCRA classification : Unused product is D002 (Corrosive)

Product AT USE DILUTION

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

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 UN3266

DOT Proper shipping name Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium hypochlorite)

Class 8

14. Transport information

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 Classification : Corrosive material
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

<u>SARA 313</u>	<u>Product name</u>	<u>CAS number</u>	<u>Concentration</u>
Form R - Reporting requirements	: No listed substance		

California Prop. 65 : No listed substance

Product AT USE DILUTION

Irritating material

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		1
Flammability		0
Physical hazards		0

Health 1, Flammability 0, Instability/Reactivity 0, Special

Date of issue : 14-October-2011
Responsible name : Regulatory Affairs
1-800-352-5326

Indicates information that has changed from previously issued version.

Notice to reader

16. Other information

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.**