



SAFETY DATA SHEET

ENFORCE LP

SECTION 1. PRODUCT IDENTIFICATION

Product name : ENFORCE LP

Other means of identification : Not applicable

Recommended use : Cleaning product

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0,0 % - 3,9 %

Company : Manufactured or Distributed in Costa Rica by:
ECOLAB Costa Rica SRL, Zona Franca BES, El Coyoil 5 Km al Oeste
Aeropuerto Juan Santamaría,
Alajuela, Costa Rica, Código Postal: Apdo109-4003.

Product Distributed in Honduras by:
ECOLAB Ofibodega Premier, bodega No.8 en el Boulervar del este a
30 mts de la caseta de peaje, San Pedro Sula, Honduras

Product Distributed in Panama by:
ECOLAB ALBROOK COMERCIAL PARK, L. D14, CALLE RUBEN
DARIO, CURUNDU, PANAMÁ

Product Distributed in El Salvador by:
ECOLAB, S.A, de C.V. 12 Calle Poniente y 23 Avenida Sur #700 San
Salvador, El Salvador Colonia Cucumayan.

Product Distributed in Guatemala by:
ECOLAB S.A. ECOLAB 42 CALLE 23-00 ZONA 12, BODEGA 8

Product Distributed in Nicaragua by:
ECOLAB C.C.R.L . ECOLAB KM. 16.7 CARRETERA A
TICUANTEPE, 200 MTS A COMUNIDAD SAN PEDRO,
TICUANTEPE. - MANAGUA, NICARAGUA

Emergency telephone : Costa Rica: For medical emergency information, call 911 and (506)
2436-3900 in Costa Rica. National Center of Intoxication in Costa
Rica: (506) 2223-1028
El Salvador: National Center of Intoxication in EL SALVADOR TEL.
(503) 22319262
Guatemala: TOXICOLOGICAL INFORMATION CENTER OF
GUATEMALA CIAT (502) 2230 0807
Nicaragua: National Center of Intoxication in NICARAGUA N° Tel
(505) 2897150
Honduras: HOSPITAL ESCUELA DE TEGUCIGALPA HONDURAS
(504) 2232-2322
Panama: SYSTEM OF EMERGENCY MANAGEMENT OF THE
REPUBLIC OF PANAMA (SUME) - TEL. 911

Issuing date : 09.03.2022

SECTION 2. HAZARD OR HAZARDS IDENTIFICATION

GHS Classification
Product AS SOLD

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Corrosive to Metals, Category 1	H290
Skin corrosion/irritation, Sub-category 1A	H314
Serious eye damage/eye irritation, Category 1	H318
Short-term (acute) aquatic hazard, Category 2	H401

Product AT USE DILUTION

Skin corrosion/irritation, Category 1	H314
Serious eye damage/eye irritation, Category 1	H318
Short-term (acute) aquatic hazard, Category 3	H402

GHS label elements

Product AS SOLD

Hazard pictograms

:



Signal Word

: Danger

Hazard Statements

: H290
H314
H401

May be corrosive to metals.
Causes severe skin burns and eye damage.
Toxic to aquatic life.

Precautionary Statements

: **Prevention:**

P234
P264
P273
P280

Keep only in original packaging.
Wash skin thoroughly after handling.
Avoid release to the environment.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P363
P390
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.

Storage:

P405

Store locked up.

Disposal:

P501

Dispose of contents/ container to an approved waste disposal plant.

Product AT USE DILUTION

Hazard pictograms

:



Signal Word

: Danger

Hazard Statements

: H314

Causes severe skin burns and eye damage.

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	H402	Harmful to aquatic life.
Precautionary Statements	Prevention: P264 P273 P280	Wash skin thoroughly after handling. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.
	Response: P301 + P330 + P331 P303 + P361 + P353 P304 + P340 + P310 P305 + P351 + P338 + P310	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
	P363 Storage: P405 Disposal: P501	Wash contaminated clothing before reuse. Store locked up. Dispose of contents/ container to an approved waste disposal plant.

Product AS SOLD

Other hazards : Mixing this product with acid or ammonia releases chlorine gas.

SECTION 3. COMPOSITION / INFORMATION OF HAZARDOUS INGREDIENTS

Product AS SOLD

Pure substance/mixture : Mixture

Chemical name	CAS-No.	Concentration (%)
Sodium hydroxide	1310-73-2	5 - 10
sodium hypochlorite	7681-52-9	1 - 5
amines, coco alkyl dimethyl, n-oxides	61788-90-7	1 - 5
Sodium Xylenesulfonate	1300-72-7	1 - 5

Product AT USE DILUTION

Chemical name	CAS-No.	Concentration (%)
sodium hypochlorite	7681-52-9	< 0,1

SECTION 4. FIRST AID MEASURES

Product AS SOLD

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
Protection of first-aiders	: If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

Product AT USE DILUTION

In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
If swallowed	: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Potential Health Effects

Product AS SOLD

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Product AT USE DILUTION

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

SECTION 5. FIRE-FIGHTING MEASURES

Product AS SOLD

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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Unsuitable extinguishing media	: None known.
Specific hazards during fire fighting	: Not flammable or combustible.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx) Sulfur oxides Oxides of phosphorus
Special protective equipment for fire-fighters	: Use personal protective equipment.
Specific extinguishing methods	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. MEASURES TO BE TAKEN IN CASE OF ACCIDENTAL SPILLAGE

Product AS SOLD

Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed.
Environmental precautions	: Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Product AT USE DILUTION

Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed.
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SECTION 7. HANDLING AND STORAGE

Product AS SOLD

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Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Conditions for safe storage : Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature : 0 °C to 50 °C

Product AT USE DILUTION

Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Product AS SOLD

Ingredients with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium hydroxide	1310-73-2	C	2 mg/m ³	CR OEL
Sodium hydroxide	1310-73-2	CPT	2 mg/m ³	PA OEL
		CCT	4 mg/m ³	PA OEL
Sodium hydroxide	1310-73-2	C	2 mg/m ³	ACGIH
		Ceiling	2 mg/m ³	NIOSH REL
		TWA	2 mg/m ³	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles
Face-shield

Hand protection : Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use.
Wash face, hands and any exposed skin thoroughly after handling.

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Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Product AT USE DILUTION

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles
Face-shield

Hand protection : Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

	Product AS SOLD	Product AT USE DILUTION
Physical State	: liquid	liquid
Color	: clear, light yellow	light yellow
Odor	: Chlorine	slight
pH	: 12,0 - 13,0, (100 %)	11,8 - 12,8
Flash point	: Not applicable, Does not sustain combustion.	
Odor Threshold	: No data available	
Melting point/freezing point	: No data available	
Initial boiling point and boiling range	: 100 °C	
Evaporation rate	: No data available	
Flammability (solid, gas)	: Not applicable	
Upper explosion limit	: No data available	
Lower explosion limit	: No data available	
Vapor pressure	: No data available	
Relative vapor density	: No data available	
Relative density	: 1,155 - 1,185	
Water solubility	: soluble	
Solubility in other solvents	: No data available	
Partition coefficient: n-octanol/water	: No data available	
Autoignition temperature	: No data available	
Thermal decomposition	: No data available	

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Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Molecular weight	: No data available
VOC	: No data available

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Mixing this product with acid or ammonia releases chlorine gas.
Conditions to avoid	: None known.
Incompatible materials	: Acids Metals Organic materials
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: Carbon oxides Nitrogen oxides (NOx) Sulfur oxides Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Experience with human exposure

Product AS SOLD

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

Product AT USE DILUTION

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

Toxicity

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Product

Acute oral toxicity	: Acute toxicity estimate : > 5.000 mg/kg
Acute inhalation toxicity	: No data available
Acute dermal toxicity	: Acute toxicity estimate : > 5.000 mg/kg
Skin corrosion/irritation	: No data available
Serious eye damage/eye irritation	: No data available
Respiratory or skin sensitization	: No data available
Carcinogenicity	: No data available
Reproductive effects	: No data available
Germ cell mutagenicity	: No data available
Teratogenicity	: No data available
STOT-single exposure	: No data available
STOT-repeated exposure	: No data available
Aspiration toxicity	: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product AS SOLD

Environmental Effects : Toxic to aquatic life.

Product AT USE DILUTION

Environmental Effects : Harmful to aquatic life.

Product AS SOLD

Product

Toxicity to fish	: No data available
Toxicity to daphnia and other aquatic invertebrates	: 48 h EC50: 7,07 mg/l
Toxicity to algae	: No data available

Components

Toxicity to fish	: sodium hypochlorite 96 h EC50: 0,14 mg/l amines, coco alkyl dimethyl, n-oxides 96 h LC50 Fish: 1 mg/l
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Components

Toxicity to algae	: Sodium Xylenesulfonate 96 h EC50: 230 mg/l
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Persistence and degradability

Product AT USE DILUTION

Biodegradable

Bioaccumulative potential

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No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. INFORMATION REGARDING THE DISPOSAL OF PRODUCTS

Product AS SOLD

Disposal methods : Avoid that the product entering in the body of water, drains, pipes, or the earth (grounds). Where possible, recycling is preferable to disposal or incineration in accordance with local legislation. If you can't recycle, dispose according to local regulations. Elimination of waste in approved waste disposal plants.

Disposal considerations : Dispose of in accordance with local, state, and federal regulations. Remove as unused products. Empty containers should be brought to local recycling or waste disposal according to local legislation. Do not reuse empty containers.

Product AT USE DILUTION

Disposal methods : Avoid that the product entering in the body of water, drains, pipes, or the earth (grounds). Where possible, recycling is preferable to disposal or incineration in accordance with local legislation. If you can't recycle, dispose according to local regulations. Elimination of waste in approved waste disposal plants.

Disposal considerations : Dispose of in accordance with local, state, and federal regulations. Remove as unused products. Empty containers should be brought to local recycling or waste disposal according to local legislation. Do not reuse empty containers.

SECTION 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport

UN number : 3266
Description of the goods : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
(sodium hydroxide, sodium hypochlorite)
Class : 8
Packing group : II
Environmentally hazardous : yes

Air transport (IATA)

Contact Regulatory for air freight eligibility

Sea transport (IMDG/IMO)

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UN number : 3266
Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
(sodium hydroxide, sodium hypochlorite)
Class : 8
Packing group : II
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable
Marine pollutant : yes

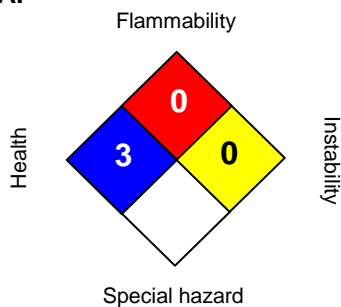
SECTION 15. REGULATORY INFORMATION

Our Safety Data Sheet (SDS) complies with Decree n ° 40705-S

SECTION 16. OTHER INFORMATION

Product AS SOLD

NFPA:



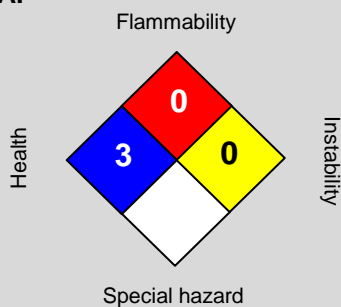
HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Product AT USE DILUTION

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Issuing date : 09.03.2022
Version : 1.3
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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

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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.