

**LIBERATOR**

Rel. # 1 on 08/28/2017

In conformity to Regulation (EU) 2015/830

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**SECTION1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name : LIBERATOR  
Product code : 43210001

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Sectors of use: Drain Cleaner

Product category: Other products

Uses advised against

This product is not recommended for all those industrial, professional or consumer uses not specifically identified on the label.

**1.3. Details of the supplier of the safety data sheet**

SARATOGA INT. SFORZA SPA  
Via Edison 76 - 20090 Trezzano s/Naviglio (MI)  
Italy

Tel. +039 02 445731 Fax +039 02 4452742

Email: trading@saratogasforza.com  
Sito internet: www.saratoga.it

**1.4. Emergency telephone number**

SARATOGA INT. SFORZA SPA +39 02 445731 (from 09,00 to 12,00 - from 14,00 to 17,30)

See Section 16 for the list of telephone numbers of the Poison Centers in Italy operating 24h/day.

**SECTION2. Hazards identification****2.1. Classification of the substance or mixture**

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:  
GHS05

Hazard Class and Category Code(s):  
Skin Corr. 1A

Hazard statement Code(s):  
H314 - Causes severe skin burns and eye damage.

Corrosive product: causes severe skin burns and eye damage.

**2.2. Label elements**

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word:  
GHS05 - Danger

Hazard statement Code(s):



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H314 - Causes severe skin burns and eye damage.

Supplemental Hazard statement Code(s):  
not applicable

Precautionary statements:

General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

Prevention

P264 - Wash carefully your face, hands and exposed skin after use.

P280 - 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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or a doctor/physician.

P363 - Wash contaminated clothing before reuse.

Storage

P405 - Store locked up.

Disposal

P501 - Dispose of contents/container to authorized collection centers.

Contains:

Sodium Hydroxide

**2.3. Other hazards**

Substance/mixture meets the criteria for PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

Labelling in accordance with Directives 67/548/EEC and 1999/45/EC and subsequent amendments and adjustments.

Packaging have to be fitted with child-resistant fastenings.

Packaging have to be fitted with a tactile warning.

**SECTION3. Composition/information on ingredients****3.1 Substances**

Not relevant.

**3.2 Mixtures**

Refer to paragraph 16 for full text of hazard statements.

Substance	Concentration	Classification	Index	CAS	EINECS	REACH
Sodium Hydroxide	> 20 <= 30%	Met. Corr. 1, H290; Skin Corr. 1A, H314	011-002-00-6	1310-73-2	215-185-5	01-2119457 892-27

**SECTION4. First aid measures****4.1. Description of first aid measures**

Inhalation:

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Air the area. Move immediately the patient from the contaminated area and keep at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct skin contact (of pure product):

Remove immediately the contaminated clothes.

In case of contact with skin, wash immediately with plenty of running water.

Get medical advice/attention immediately.

Direct eyes contact (of pure product):

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately.

Do not use eye drop or ointments of any kind before eye specialist visit or advice.

Ingestion:

Not give bicarbonate.

Do not induce absolutely vomiting or emesis. Get medical advice/attention immediately.

**4.2. Most important symptoms and effects, both acute and delayed**

No data available.

**4.3. Indication of any immediate medical attention and special treatment needed**

If medical advice is needed, have product container or label at hand.

Immediately call a POISON CENTER or a doctor.

**SECTION 5. Firefighting measures****5.1. Extinguishing media**

Advised means of extinction:

Water spray, CO<sub>2</sub>, foam, chemical powders depending on the materials involved in the fire.

Means of extinction to avoid:

Jets of water. Use jets of water only to cool surfaces of containers exposed to fire.

**5.2. Special hazards arising from the substance or mixture**

No data available.

**5.3. Advice for firefighters**

Use protections for respiratory tract.

Safety helmet and complete protective clothing.

The vaporized water can be used in order to protect the persons engaged in the extinguishment.

It is recommended to use self-breathing apparatus, especially when working in closed and poorly ventilated areas and if using halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1 For non-emergency personnel:

Wear mask, gloves and protecting clothes.

6.1.2 For emergency responders:

Eliminate all free flames and possible ignition sources. Do not smoke.

Provide adequate ventilation.

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Evacuate the danger area and, in case, consult an expert.

## 6.2. Environmental precautions

Contain the losses with ground or sand.

If the product has flown in a water-course, sewage or has contaminated the ground or the vegetation, inform the competent authorities.

Dispose the residue according to the standards in force.

## 6.3. Methods and material for containment and cleaning up

6.3.1 For containment:

Collect fastly the product wearing mask and protecting clothes.

Collect the product for re-use, if possible, or for disposal. Eventually absorb it with inert material.

Prevent that it penetrates in the sewer.

6.3.2 For cleaning up:

After the picking, wash with water the involved zone and materials.

6.3.3 Other information:

None in particular.

## 6.4. Reference to other sections

See paragraphs 8 and 13 for further information.

## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

Avoid contact and inhalation of vapours.

Wear protective gloves/protective clothing/eye protection/face protection.

Do not use on large surfaces in the inhabited places.

While working do not eat and drink.

See also paragraph 8 below.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep in original packaging tightly closed. Do not store in open or unlabeled packages.

Keep containers upright and safe by avoiding the possibility of falls or collisions.

Store in a cool place, away from heat sources and direct exposure of sunlight.

### 7.3. Specific end use(s)

Industrial Manufacturing (all):

Handle with care and store in a cool and adequate place in original packages.

Public domain (administration, education, entertainment, services, craftsmen):

Handle with care and store in a cool and adequate place in original packages.

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Related to contained substances:

Sodium Hydroxide:

TLV: 2 mg/m<sup>3</sup> (Ceiling value) (ACGIH 2004).

- Substance: Sodium Hydroxide

DNEL

Local effects Long term Workers Inhalation = 1

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Local effects Long term Consumers Inhalation = 1 (mg/m3)

**8.2. Exposure controls**

Appropriate engineering controls:

Industrial Manufacturing (all):

No specific control expected.

Public domain (administration, education, entertainment, services, craftsmen):

No specific control expected.

Individual protection measures:

(a) Eye / face protection

Wear a mask.

(b) Skin protection

(i) Hand protection

During the use or handling of pure product use protective gloves resistant to chemical products (EN 374-1 / EN 374-2 / EN 374-3).

(ii) Other

During the manipulation of the pure product wear complete protection clothes of the skin.

(c) Respiratory protection

Use an adequate respiratory protection (EN 141).

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Use according to good working practices to avoid pollution into the environment.

**SECTION9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical and chemical properties	Value	Determination method
Appearance	Yellow liquid	
Odour	odourless	
Odour threshold	Not determined	
pH	13,5 - 14 at 100%	
Melting point/freezing point	Not determined	
Initial boiling point and boiling range	120° C.	
Flash point	Not flammable	
Evaporation rate	Not determined	
Flammability (solid, gas)	Not applicable	
Upper/lower flammability or explosive limits	Not applicable	
Vapour pressure	Not determined	
Vapour density	Not determined	
Relative density	1,330 Kg/dm <sup>3</sup> a 20° C.	

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Physical and chemical properties	Value	Determination method
Solubility	Not determined	
Water solubility	Soluble in water in all proportions	
Partition coefficient: n-octanol/water	Not determined	
Auto-ignition temperature	Not determined	
Decomposition temperature	Not determined	
Viscosity	60 mPa.s (20°)	
Explosive properties	Not relevant	
Oxidising properties	Not determined	

**9.2. Other information**

No data available.

**SECTION 10. Stability and reactivity****10.1. Reactivity**

No reactivity hazards

**10.2. Chemical stability**

No hazardous reaction when handled and stored according to the instructions.

**10.3. Possibility of hazardous reactions**

There are no hazardous reactions.

**10.4. Conditions to avoid**

Nothing to report.

**10.5. Incompatible materials**

It can generate flammable gases in contact with elementary metals, nitrides, inorganic sulfide, strong reducing agents.

It can generate toxic gases in contact with inorganic sulfide, strong reducing agents.

**10.6. Hazardous decomposition products**

Does not decompose when used for intended uses.

**SECTION 11. Toxicological information****11.1. Information on toxicological effects**

ATE(mix) oral = 8

ATE(mix) dermal = 8

ATE(mix) inhal = 8

(a) acute toxicity: Sodium Hydroxide: Inhalation: vapors may irritate the throat and the respiratory tract and cause coughing.

Ingestion: may cause chemical burns in mouth, esophagus and stomach.

Skin contact: prolonged contact may cause redness and irritation. Causes burns.

Eye contact: very irritating, including burning and tearing, of eyes: and mucous membranes. Causes burns.

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Acute oral, cutaneous and inhalative toxicity:

- DL-100 (oral): rabbit: => 500 mg / kg bw
- DL-50 (cutaneous): rabbit: => 1350 mg / kg bw

(b) skin corrosion/irritation: Corrosive product: causes severe skin burns and eye damage.

Sodium Hydroxide: Corrosive. Prolonged contact may cause redness and irritation. Causes burns.

(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage.

Sodium Hydroxide: Corrosive. Very irritating, including burning and tearing, of eyes: and mucous membranes. Causes burns.

(d) respiratory or skin sensitization: based on available data, the classification criteria are not met.

(e) germ cell mutagenicity: based on available data, the classification criteria are not met.

(f) carcinogenicity: based on available data, the classification criteria are not met.

(g) reproductive toxicity: based on available data, the classification criteria are not met.

(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.

(i) specific target organ toxicity (STOT) repeated exposure: based on available data, the classification criteria are not met.

(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:

Sodium Hydroxide:

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 1350

**SECTION 12. Ecological information****12.1. Toxicity**

Related to contained substances:

Sodium Hydroxide:

ECOTOXICITY

Product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills may have harmful effects on the environment.

LC50, 96 H, FISH, mg / l 55.6

EC50, 48 H, DAFNIA, mg / l 156

Use according to good working practices to avoid pollution into the environment.

**12.2. Persistence and degradability**

Related to contained substances:

Sodium Hydroxide:

Not applicable (organic substance).

**12.3. Bioaccumulative potential**

Related to contained substances:

Sodium Hydroxide:

Bioaccumulation is not expected in organisms.

**12.4. Mobility in soil**

Related to contained substances:

Sodium Hydroxide:

The product is soluble in water.

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**12.5. Results of PBT and vPvB assessment**

Substance/mixture meets the criteria for PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

**12.6. Other adverse effects**

No adverse effects

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Do not re-use the empty containers. Dispose them in accordance with the regulations in force. Possible residues of product must be disposed to authorized companies according to the regulations in force.

Recover if possible. Send to authorized disposal or incineration systems in controlled conditions. Operate according to local and national regulations in force.

**SECTION 14. Transport information****14.1. UN number**

ADR/RID/IMDG/ICAO-IATA: 1824

ADR exemption because compliant with the following characteristics:

Combination packagings: per inner packaging 1 L per package 30 Kg

Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg

**14.2. UN proper shipping name**

ADR/RID/IMDG: SODIUM HYDROXIDE SOLUTION

ICAO-IATA: SODIUM HYDROXIDE SOLUTION

**14.3. Transport hazard class(es)**

ADR/RID/IMDG/ICAO-IATA: Class : 8

ADR/RID/IMDG/ICAO-IATA: Label : Onu

ADR: Tunnel restriction code : E

ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L

IMDG - EmS : F-A, S-B

**14.4. Packing group**

ADR/RID/IMDG/ICAO-IATA: II

**14.5. Environmental hazards**

ADR/RID/ICAO-IATA: Product is not environmentally hazardous

IMDG: Marine polluting agent : No

**14.6. Special precautions for user**

The transport must be carried out by vehicles authorised to carry dangerous goods in accordance with the requirements of the current edition of the A.D.R Agreement and the applicable national regulations. The transport must be carried out in the original packaging and, in any case, in packages that are made of materials resistant to the content and not likely to generate with this dangerous reactions. Employees in charge of loading and unloading of dangerous goods must have received proper training on the risks presented by the prepared and on possible procedures to be taken in the event of emergency situations.



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**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Transport in bulk is not expected.

**SECTION15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Leg. 3/2/1997 n. 52 (Classification, packaging and labeling of dangerous substances). 14/3/2003 Legislative Decree n. 65 (Classification, packaging and labeling of dangerous substances). Leg. 2/2/2002 n. 25 (Risks related to chemical agents at work). Ministerial Decree Jobs 26/02/2004 (occupational exposure limits); Ministerial Decree 03/04/2007 (Implementation of Directive no. 2006/8 / EC). Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) 790/2009. Leg. September 21, 2005 n. 238 (Seveso Directive Ter).  
REGULATION (EU) No 1357/2014 - waste:  
HP8 - Corrosive

**15.2. Chemical safety assessment**

No chemical safety assessment was carried out by the supplier

**SECTION16. Other information****16.1. Other information**

Description of the hazard statements exposed to point 3

H290 = May be corrosive to metals.

H314 = Causes severe skin burns and eye damage.

Classification based on data of all mixture components

POISON CENTERS operating 24 h/day - telephone numbers in case of emergency:

BOLOGNA: Centro Antiveleni Ospedale Maggiore - tel. 0510 333333

CATANIA: Centro di Rianimazione Ospedale Garibaldi - tel. 095 7594120

CESENA: Centro Antiveleni Ospedale Maurizio Bufalini - tel. 0547 352612

CHIETI: Centro Antiveleni Ospedale SS. Annunziata - tel. 0871 345362

FIRENZE: Servizio Autonomo di Tossicologia Università degli Studi - tel. 055 4277238

GENOVA: Centro Antiveleni Ospedale San Martino - tel. 010 352808

GENOVA: Servizio Antiveleni Istituto Scientifico "G. Gaslini" - tel. 010 56361 / 0010 3760603

LA SPEZIA: Ospedale Civile Sant'Andrea - tel. 0487 533296

LECCE: Centro Antiveleni Ospedale Vito Fazzi - tel. 0832 665374

MILANO: Centro Antiveleni Ospedale Niguarda - tel. 02 66101029

NAPOLI: Centro Antiveleni Ospedale Cardarelli - tel. 081 7472870

PAVIA: Clinica del Lavoro e della Riabilitazione IRCCS - tel. 0382 24444

REGGIO C. Centro Antiveleni Ospedali Riuniti - tel. 0965 811624

ROMA: Centro Antiveleni Policlinico Gemelli - tel. 06 3054343

ROMA: Centro Antiveleni Policlinico Umberto 1° - tel. 06 490663

TORINO: Centro Antiveleni Istituto Anestesia e Rianimazione - tel. 011 6637637

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The product should not be used for purposes other than those specified in Section 1.

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This sheet has been prepared according to the following regulations:

**National Regulation**

- Legislative Decree 81/2008 (Single text on the protection of health and safety at work) and subsequent amendments
- Directive 2009/161/EU - chemical risk assessment according to title IX

**European Community:**

- European Agreement concerning the International carriage of Dangerous Goods by Road (ADR)
- Regulation (EU) 2015/830

**Legend:**

CLP: Classification, Labelling Packaging Regulation

EC50: Effective concentration for 50% effect

LC50: Lethal Concentration to 50% of a test population

LD50: Lethal Dose to 50% of a test population

NOEL: No Observable Effect Level

PNEC: Predicted no effect concentration

DNEL: Derived No Effect Level

DMEL: Derived Minimum Effect Level

STEL: Short Term Exposure limit

TLV: Threshold Limit Value

TWA: Time-weighted average exposure limit

PBT: Persistent, Bioaccumulative and Toxic substance

vPvB: Very Persistent and Very Bioaccumulative

CSA: Chemical safety assessment

CSR: Chemical safety report

ES: Exposure sceneries

DU: Downstream users

**16.2 General bibliography**

ACGIH - American Conference of Governmental Industrial Hygienists

ECB - European Chemicals Bureau

IARC - International Agency for Research on Cancer

IPCS - International Programme on Chemical Safety (Cards)

NIOSH - Registry of toxic effects of chemical substances (1983)

OSHA - European Agency for Safety and Health at Work

PHATOX - Pharmacological and Toxicological Data and Information Network

**FURTHER INFORMATION**

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations.

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