

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS

Printing date 21.04.2014

Revision: 21.04.2014

1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** LT-32 v.2
- **Article number:** 100026
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Machine dishwash
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Theochem Laboratories
7373 Rowlett Park Drive
Tampa, FL 33610
Phone: 813-237-6463
- **1.4 Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585



2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

-
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



C; Corrosive

R34: Causes burns.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

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- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



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- **Signal word** Danger
- **Hazard-determining components of labelling:**
sodium hydroxide
- **Hazard statements**
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.
 - P103 Read label before use.
 - P280 Wear protective gloves / eye protection.
 - P260 Do not breathe mist/vapours/spray.
 - 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.
 - P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 - P310 Immediately call a POISON CENTER/doctor.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Hazard description:**
- **WHMIS-symbols:**
E - Corrosive material



- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **HMIS Long Term Health Hazard Substances**

None of the ingredients is listed.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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3 Composition/information on ingredients

3.2 Mixtures

· **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 144538-83-0	Sodium Iminodisuccinate	< 10%
CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00-6	sodium hydroxide  C R35  Skin Corr. 1A, H314	< 10%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

4.1 Description of first aid measures

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately rinse with water.

If skin irritation continues, consult a doctor.

Seek immediate medical help for blistering or open wounds.

· **After eye contact:**

Protect unharmed eye.

Remove contact lenses if worn, if possible.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Nausea

Cramp

Coughing

Breathing difficulty

Gastric or intestinal disorders when ingested.

Disorientation

· **Hazards**

Danger of gastric perforation.

Danger of pulmonary oedema.

Danger of disturbed cardiac rhythm.

Condition may deteriorate with alcohol consumption.

4.3 Indication of any immediate medical attention and special treatment needed

Monitor circulation, possible shock treatment.

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

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5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NO_x)
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Clean the affected area carefully; suitable cleaners are:
Warm water
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Unsuitable material for receptacle: aluminium.
Unsuitable material for receptacle: steel.

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- Unsuitable material for receptacle: glass or ceramic.
- **Information about storage in one common storage facility:**
Do not store together with oxidizing and acidic materials.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from frost.
- **7.3 Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

1310-73-2 sodium hydroxide

PEL (USA)	2 mg/m ³
REL (USA)	Short-term value: C 2 mg/m ³
TLV (USA)	Short-term value: C 2 mg/m ³
EL (Canada)	Short-term value: C 2 mg/m ³

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
Use suitable respiratory protective device in case of insufficient ventilation.
Use suitable respiratory protective device when aerosol or mist is formed.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact gloves made of the following materials are suitable:** Rubber gloves
- **Eye protection:**



Safety glasses

Goggles recommended during refilling

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Colour:	Yellow
- **Odour:** Odourless
- **Odour threshold:** Not determined.
- **pH-value:** <13,5
- **Change in condition**

Melting point/Melting range:	Not Determined.
Boiling point/Boiling range:	100 °C (212 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Auto/Self-ignition temperature:**

Decomposition temperature:	Not determined.
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- **Self-igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.
- **Vapour pressure at 20 °C:** 23 hPa
- **Density at 20 °C:** 1,04-1,08 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.

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- **Solubility in / Miscibility with water:** Soluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** Not determined.
- **Solids content:** Not determined.
- **9.2 Other information** No further relevant information available.

10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Reacts with strong acids and oxidizing agents.
Strong exothermic reaction with acids.
Attacks materials containing glass and silicate.
Corrosive action on metals.
- **10.4 Conditions to avoid** Store away from oxidizing agents.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Nitrogen oxides

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

1310-73-2 sodium hydroxide

Oral	LD50	2000 mg/kg (rat)
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- **Primary irritant effect:**
 - on the skin:** Caustic effect on skin and mucous membranes.
 - on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** The product contains materials that are harmful to the environment.
- **12.2 Persistence and degradability** biodegradable
- **12.3 Bioaccumulative potential** Does not accumulate in organisms.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
At present there are no ecotoxicological assessments.
This statement was deduced from the properties of the single components.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralized.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water only.

14 Transport information

- **14.1 UN-Number**
- **DOT, ADR, IMDG, IATA** UN1824

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· **14.2 UN proper shipping name**



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1 L (0.3 gal).

· **DOT, IMDG, IATA**

SODIUM HYDROXIDE SOLUTION

· **ADR**

1824 SODIUM HYDROXIDE SOLUTION

· **14.3 Transport hazard class(es)**

· **DOT**



· **Class**

8 Corrosive substances.

· **Label**

8

· **ADR**



· **Class**

8 (C7) Corrosive substances.

· **Label**

8

· **IMDG, IATA**



· **Class**

8 Corrosive substances.

· **Label**

8

· **14.4 Packing group**

· **DOT, ADR, IMDG, IATA**

II

· **14.5 Environmental hazards:**

· **Marine pollutant:**

No

· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Danger code (Kemler):**

80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

Alkalis

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

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

1L

· **Transport category**

2

· **Tunnel restriction code**

E

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· UN "Model Regulation":

UN1824, SODIUM HYDROXIDE SOLUTION, 8, II (Contd. of page 9)

15 Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65 (California):

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic Categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· Canada

· Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

1310-73-2 | sodium hydroxide

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- **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients is listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H314 Causes severe skin burns and eye damage.

R35 Causes severe burns.

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A