

**Solid Clean M****Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE  
COMPANY/UNDERTAKING****1.1 Product identifier**

Product name : Solid Clean M

Product code : 114500E

Use of the  
Substance/Mixture : Machine Warewashing Detergent

Substance type: : Mixture

**For professional users only.**

Product dilution information : No dilution information provided.

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

Identified uses : Dishwash and rinse aid product; Automatic process

Recommended restrictions  
on use : Reserved for industrial and professional use.

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

Company : Ecolab Temizleme Sistemleri Ltd. Şti  
Esentepe Mahallesi, Cevizli - Esentepe E-5 Yanyol Caddesi  
Vizyon Bulvarı No: 13, Kat 1 No: 65 Turkey TR 34870 KARTAL /  
İSTANBUL  
+90 (216) 458 69 00, Fax: +90 (216) 458 69 07

Company : Ecolab Gulf FZE  
P.O. Box 17063  
Jebel Ali Free Zone Area, Near Container Terminal 3 - North  
Zone, Dubai UAE 00971 4 8014444 Customer Services

Nalco Egypt Trading  
5th Settlement, South 90th St.  
The Address Building No 67th – 1st floor, New Cairo, Cairo, Egypt  
11835  
0020 2 25 37 1195

Ecolab Maroc S.A.R.L.  
Centre Green Works Batiment B, Bureau N° 13 ,  
109 Route de Bouskoura, Sidi Maarouf, 27182, Casablanca,  
Morocco 00212 22 58 25 30 - 35

Company : Ecolab Food Safety & Hygiene Solutions Pvt. Ltd  
WeWork, 247 Park Bus Stop, 13th floor, 247 Park, Hindustan C,  
LBS Road, Gandhi Nagar, Vikhroli West,

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Mumbai, Maharashtra. 400 079, India Phone: +91 22 48808555,  
+91 22 48808535 Toll free number: 1800 209 2530

**1.4 Emergency telephone number**

Emergency telephone number : +32-(0)3-575-5555 Trans- European

Poison Information Centre telephone number : 114 Ulusal Zehir Danışma Merkezi (UZEM)

Date of Compilation/Revision : 08.01.2025  
Version : 1.13

**Section: 2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification (T.R. SEA No 28848)**

Skin corrosion, Sub-category 1A	H314
Serious eye damage, Category 1	H318

**2.2 Label elements**

**Labelling (T.R. SEA No 28848)**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
P280 Wear protective gloves/ eye protection/ face protection.

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

Hazardous components which must be listed on the label:  
sodium hydroxide

**2.3 Other hazards**

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None known.

**Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2 Mixtures**

**Hazardous components**

Chemical Name	CAS-No. EC-No.	Classification (T.R. SEA No 28848)	Concentration : [%]
sodium hydroxide	1310-73-2 215-185-5	Skin corrosion Category 1A; H314 Corrosive to metals Category 1; H290  Skin corrosion Category 1A H314 >= 5 % Skin corrosion Category 1B H314 2 - < 5 % Skin irritation Category 2 H315 0.5 - < 2 % Eye irritation Category 2 H319 0.5 - < 2 %	>= 50 - < 70

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Section: 4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

- 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. 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.

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

See Section 11 for more detailed information on health effects and symptoms.

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

- Treatment : Treat symptomatically.

**Section: 5. FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local

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circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

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

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Depending on combustion properties, decomposition products may include following materials:  
Carbon oxides  
nitrogen oxides (NOx)  
metal oxides

**5.3 Advice for firefighters**

Special protective equipment for firefighters : Use personal protective equipment.

Further information : 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. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel : 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 in sections 7 and 8.

Advice for emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

**6.2 Environmental precautions**

Environmental precautions : Do not allow contact with soil, surface or ground water.

**6.3 Methods and materials for containment and cleaning up**

Methods for cleaning up : Sweep up and shovel into suitable containers for disposal.

**6.4 Reference to other sections**

See Section 1 for emergency contact information.  
For personal protection see section 8.  
See Section 13 for additional waste treatment information.

**Section: 7. HANDLING AND STORAGE**

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### 7.1 Precautions for safe handling

- Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not breathe dust. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).
- 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. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

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

- Requirements for storage areas and containers : Protect from frost, heat and sunlight. Store at room temperature in the original container. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
- Storage temperature : 0 °C to 40 °C

### 7.3 Specific end uses

- Specific use(s) : Dishwash and rinse aid product; Automatic process

## Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
sodium hydroxide	1310-73-2	TWA (8 Hour)	2 mg/m <sup>3</sup>	TR OEL
sodium hydroxide	1310-73-2	CEIL	2 mg/m <sup>3</sup>	IN OEL

#### DNEL

sodium hydroxide	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m <sup>3</sup>  End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m <sup>3</sup>
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### 8.2 Exposure controls

#### Appropriate engineering controls

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

**Individual protection measures**

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

Eye/face protection (EN 166) : Safety goggles  
Face-shield

Hand protection (EN 374) : Recommended preventive skin protection  
Gloves  
Nitrile rubber  
butyl-rubber  
Breakthrough time: 1 – 4 hours  
Minimum thickness for butyl-rubber 0.7 mm for nitrile rubber 0.4 mm or equivalent (please refer to the gloves manufacturer/distributor for advise).  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin and body protection (EN 14605) : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing including appropriate safety shoes

Respiratory protection (EN 143, 14387) : When respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, (EU) 2016/425), or equivalent, with filter type:P

**Environmental exposure controls**

General advice : Consider the provision of containment around storage vessels.

**Section: 9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

Appearance : solid  
Colour : light yellow  
Odour : odourless  
pH : 10.0 - 12.0, 1 %  
Flash point : Not applicable.  
Odour Threshold : Not applicable and/or not determined for the mixture  
Melting point/freezing point : Not applicable and/or not determined for the mixture  
Initial boiling point and : Not applicable and/or not determined for the mixture

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boiling range

Evaporation rate	: Not applicable and/or not determined for the mixture
Flammability (solid, gas)	: Not applicable and/or not determined for the mixture
Upper explosion limit	: Not applicable and/or not determined for the mixture
Lower explosion limit	: Not applicable and/or not determined for the mixture
Vapour pressure	: Not applicable and/or not determined for the mixture
Relative vapour density	: Not applicable and/or not determined for the mixture
Relative density	: 1.4 - 1.6
Water solubility	: soluble
Solubility in other solvents	: Not applicable and/or not determined for the mixture
Partition coefficient: n-octanol/water	: Not applicable and/or not determined for the mixture
Auto-ignition temperature	: Not applicable and/or not determined for the mixture
Thermal decomposition	: Not applicable and/or not determined for the mixture
Viscosity, kinematic	: Not applicable and/or not determined for the mixture
Explosive properties	: Not applicable and/or not determined for the mixture
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

### **9.2 Other information**

Not applicable and/or not determined for the mixture

## **Section: 10. STABILITY AND REACTIVITY**

### **10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

### **10.2 Chemical stability**

Stable under normal conditions.

### **10.3 Possibility of hazardous reactions**

No dangerous reaction known under conditions of normal use.

### **10.4 Conditions to avoid**

None known.

### **10.5 Incompatible materials**

Acids

### **10.6 Hazardous decomposition products**

In the event of fire, see Section 5

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**Section: 11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

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

**Product**

Acute oral toxicity : There is no data available for this product.

Acute inhalation toxicity : There is no data available for this product.

Acute dermal toxicity : There is no data available for this product.

Skin corrosion/irritation : There is no data available for this product.

Serious eye damage/eye irritation : There is no data available for this product.

Respiratory or skin sensitization : There is no data available for this product.

Carcinogenicity : There is no data available for this product.

Reproductive effects : There is no data available for this product.

Germ cell mutagenicity : There is no data available for this product.

Teratogenicity : There is no data available for this product.

STOT - single exposure : There is no data available for this product.

STOT - repeated exposure : There is no data available for this product.

Aspiration toxicity : There is no data available for this product.

**Potential Health Effects**

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.

**Experience with human exposure**

Eye contact : Redness, Pain, Corrosion



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Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

**Section: 12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

Environmental Effects : This product has no known ecotoxicological effects.

**Product**

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

**Components**

Toxicity to daphnia and other aquatic invertebrates : sodium hydroxide 48 h EC50 Daphnia magna (Water flea): 40 mg/l

**12.2 Persistence and degradability**

**Product**

Biodegradability : The surfactants contained in the product are biodegradable according to the requirements of the detergent regulation 648/2004/EC

**Components**

Biodegradability : sodium hydroxide Result: Not applicable - inorganic

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

**Product**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

no data available

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**Section: 13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

**13.1 Waste treatment methods**

- |                                   |   |   |
|-----------------------------------|---|---|
| Product                           | : | Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.   |
| Contaminated packaging            | : | Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.   |
| Guidance for Waste Code selection | : | Inorganic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations. |

**Section: 14. TRANSPORT INFORMATION**

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 (ADR/ADN/RID)**

- |                                   |   |                                  |
|-----------------------------------|---|----------------------------------|
| 14.1 UN number                    | : | 1823                             |
| 14.2 UN proper shipping name      | : | SODIUM HYDROXIDE, SOLID, MIXTURE |
| 14.3 Transport hazard class(es)   | : | 8                                |
| 14.4 Packing group                | : | II                               |
| 14.5 Environmental hazards        | : | No                               |
| 14.6 Special precautions for user | : | None                             |

**Air transport (IATA)**

- |                                   |   |                                  |
|-----------------------------------|---|----------------------------------|
| 14.1 UN number                    | : | 1823                             |
| 14.2 UN proper shipping name      | : | Sodium hydroxide, solid, mixture |
| 14.3 Transport hazard class(es)   | : | 8                                |
| 14.4 Packing group                | : | II                               |
| 14.5 Environmental hazards        | : | No                               |
| 14.6 Special precautions for user | : | None                             |

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**Sea transport (IMDG/IMO)**

14.1 UN number : 1823  
14.2 UN proper shipping name : SODIUM HYDROXIDE, SOLID, MIXTURE  
14.3 Transport hazard class(es) : 8  
14.4 Packing group : II  
14.5 Environmental hazards : No  
14.6 Special precautions for user : None  
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

**Section: 15. REGULATORY INFORMATION**

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

according to Detergents Regulation EC 648/2004 : 5 % or over but less than 15 %: Polycarboxylates  
less than 5 %: Non-ionic surfactants

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable.

**National Regulations**

**Take note of Dir 94/33/EC on the protection of young people at work.**

Other regulations : According to 11 December 2013, Numbered 28848 (Bis), "Ministry of Environment and Forestry"; Regulation on Classification, Labelling and Packaging of Substances and Mixtures. Prepared according to Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals. (23.06.2017 - No: 30105)

**15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out on the product.

**Section: 16. OTHER INFORMATION**

**Procedure used to derive the classification according to REGULATION (EC) No 1272/2008 and Regulation T.R. SEA No 28848**

Classification	Justification
Skin corrosion 1A, H314	Based on product data or assessment
Serious eye damage 1, H318	Based on product data or assessment

**Full text of H-Statements**

**Solid Clean M**

H290  
H314

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

**Full text of other abbreviations**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

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Certificate expiry date: : 20.05.2028  
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Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

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 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

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materials or in any process, unless specified in the text.