

# Professional Detergent for dishwashers

## SECTION 1. Identification of the substance or mixture and the company/business

### 1.1 Identification of the product

Commercial name: PROFESSIONAL DETERGENT FOR DISHWASHERS  
Commercial code: OS2092

### 1.2 Applicable recognised uses for the substance or mixture and non-recommended uses

Detergent for the automatic washing of dishes  
Sector of use:  
Professional use [SU22]

Non-recommended uses  
Do not use for any purpose other than those indicated.

### 1.3 Information on the supplier of the safety information sheet

Produced by:  
Allegrini S.p.A.  
Vicolo Salvo d'Acquisto, 2  
24050 Grassobbio (BG) Italy  
Tel. +39 035 4242111  
e-mail: [msds@allegrini.com](mailto:msds@allegrini.com)

Distributed by:  
Electrolux Professional S.p.A.  
Viale Treviso, 15  
Pordenone (PN) Italy  
Tel. +39 0434 3801

### 1.4 Emergency telephone number

Ireland (IR): Poisons Information Centre +353 (0)1 809 2166  
United Kingdom (UK): National Poisons Information Service (NPIS)

## SECTION 2. Identification of hazards

### 2.1 Classification of the substance or mixture

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

Pictograms:  
GHS05, GHS08

Hazard class and category codes:  
Met. Corr. 1, Skin Corr. 1A, STOT RE 2

Hazard indication codes:  
H290 - May be corrosive to metals.  
H314 - Causes severe skin burns and eye damage.  
H373 - May cause damage to organs (respiratory system) through prolonged or repeated exposure (inhalation).  
The product may be corrosive to metals.  
Corrosive product: causes severe skin burns and eye damage.  
Warning: the product may cause serious irreversible harm to human health in cases of prolonged or repeated exposure.

### 2.2 Label elements

Labelling conforming to regulation (EC) No. 1272/2008

Pictograms, warning codes:  
GHS05, GHS08 – Danger



Hazard indication codes:  
H290 - May be corrosive to metals.  
H314 - Causes severe skin burns and eye damage.  
H373 - May cause damage to organs (respiratory system) through prolonged or repeated exposure (inhalation).

# Professional Detergent for dishwashers

Supplementary hazard indication codes:  
Not available

Safety recommendations:

Prevention

P280 - Wear protective gloves/eye protection.

Reaction

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 CENTRE/doctor.

Disposal

P501 - Dispose of contents/container in accordance with local regulations.

Contains:

Sodium hydroxide, Tetrasodium ethylenediaminetetraacetate.

Contains (Reg. EC 648/2004):

> 15% < 30% EDTA.

< 5% Amphoteric surfactants, Phosphonates, Fragrance.

## 2.3 Other hazards

The substance/mixture DOES NOT contain PBT/vPvB substances pursuant to Regulation (EC) 1907/2006, appendix XIII.

The use of this chemical agent entails the obligation of "Risk Evaluation" by the employer according to the provisions of Legislative Decree 9 April 2008 no. 81. Employees exposed to this chemical agent do not need to undergo health monitoring if the results of the risk evaluation demonstrate that, in relation to the type and quantity of hazardous chemical agent and the modality and frequency of exposure to such agents, there is only "Moderate Risk" to the health and safety of employees and that the measures provided for in the same Legislative Decree are sufficient in order to reduce risk.

Exclusively for professional use

## SECTION 3. Composition/information on ingredients

### 3.1 Substances

Not pertinent.

### 3.2 Mixtures

Refer to point 16 for the complete text regarding hazard indications.

NOTE: SUBSTANCES MARKED WITH AN ASTERISK (\*) PRESENT SPECIFIC LIMITS

Substance	Concentration	Classification	Index	CAS	EINECS	REACH
Tetrasodium ethylenediaminetetraacetate	> 10 <= 20%	Acute Tox. 4, H302; Eye Dam. 1, H318; Acute Tox. 4, H332; STOT RE 2, H373	607-428-00-2	64-02-8	200-573-9	01-2119486762-27
Sodium hydroxide (*)	> 5 <= 10%	Met. Corr. 1, H290; Skin Corr. 1A, H314	011-002-00-6	1310-73-2	215-185-5	01-2119457892-27
Citric acid	> 1 <= 5%	Eye Irrit. 2, H319		5949-29-1	201-069-1	01-2119457026-42

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

Inhalation:

Ventilate the area. Immediately remove the patient from the contaminated area and allow them to rest in well-ventilated area. In case of illness contact a doctor.

# Professional Detergent for dishwashers

Direct contact with the skin (undiluted product):  
Immediately remove contaminated clothing.  
In case of contact with the skin, immediately wash the area abundantly with soap and water.  
Immediately contact a doctor.

Direct contact with the eyes (undiluted product):  
Immediately rinse open eyes abundantly with running water for at least 10 minutes; then protect the eyes with a dry, sterilised bandage. Immediately see a doctor.  
Do not use eyewashes or ointments of any kind before undergoing an examination or receiving advice from an optician.

Swallowing:  
Administer water with egg-white; do not administer bicarbonate.  
Never induce vomiting or emesis. Immediately see a doctor.

4.2 Principal symptoms and effects, both immediate and delayed  
No data available.

4.3 Indications of the eventual necessity to immediately consult a doctor and of special treatment  
In case of illness, contact a doctor.  
Immediately call a POISON CENTRE/doctor.

## SECTION 5. Fire prevention measures

### 5.1 Extinguishers

Recommended extinguishers:  
Fog, CO<sub>2</sub>, foam, chemical powders according to the materials involved in the fire.

Extinguishers to be avoided:  
Use water jets only to cool the surfaces of containers exposed to fire.

5.2 Special hazards deriving from the substance or mixture  
No data available.

### 5.3 Recommendations for firefighting teams

Use respiratory protection.  
Safety helmets and complete protective clothing,  
Fog can be used to protect the people involved in extinguishing the fire.  
It is furthermore recommended to use breathing apparatus particularly for operations in enclosed and poorly ventilated areas and in any case with the use of halon extinguishers (fluobrene, solkane 123, naf etc.).  
Cool the containers with water jets.

## SECTION 6. Measures in the case of accidental spills

### 6.1 Personal precautions, protective measures and emergency procedures

*6.1.1 For those not directly intervening:*  
Move away from the area surrounding the leak or spill. Do not smoke.

*6.1.2 For those directly intervening:*  
Wear a mask, gloves and protective clothing.  
Eliminate all naked flames and possible sources of ignition. Do not smoke.  
Provide adequate ventilation.  
Evacuate the area of danger and, if necessary, consult an expert.

### 6.2 Environmental precautions

Contain leaks with earth or sand.  
If the product has flowed into a watercourse, sewer or has contaminated soil or vegetation, contact the competent authorities.  
Dispose of the residue in accordance with regulations in force.

### 6.3 Methods and materials for containment and decontamination

*6.3.1 For containment*  
Quickly collect the product, wearing a mask and protective clothing.

# Professional Detergent for dishwashers

Collect the product for reuse, if possible, or for disposal. If necessary, absorb liquids with inert materials.  
Block entry into the sewage system.

## 6.3.2 For cleaning

Following collection, wash the area and materials involved with water.

## 6.3.3 Other information:

No particular information.

## 6.4 References to other sections

Refer to points 8 and 13 for further information.

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

Avoid contact and the inhalation of fumes.  
Wear protective gloves/eye protection.  
Do not eat or drink while working.  
See also the following paragraph 8.

### 7.2 Conditions for safe storage, including eventual incompatibility

Store the product in its original container, properly closed. Do not store in open or unlabelled containers.  
Keep the containers upright and safe, avoiding the possibility of falls or knocks.  
Store in a cool place, far from sources of heat and direct exposure to sunlight.

### 7.3 Specific usage

Professional use:  
Handle with care.  
Store in a ventilated area far from sources of heat.  
Keep the container properly closed.

## SECTION 8. Control of exposure/individual protection

### 8.1 Parameters of control

Relative to the substances contained:

Sodium hydroxide (\*):

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

DNEL

Long term local effects for workers Inhalation = 1

Long term local effects for consumers Inhalation = 1 (mg/m<sup>3</sup>)

Tetrasodium ethylenediaminetetraacetate

DNEL

Long term systemic effects for workers Inhalation = 2.5 (mg/m<sup>3</sup>)

Long term systemic effects for consumers Inhalation = 1.5 (mg/m<sup>3</sup>)

Short term systemic effects for workers Inhalation = 2.5 (mg/m<sup>3</sup>)

Short term systemic effects for consumers Inhalation = 1.5 (mg/m<sup>3</sup>)

Long term local effects for consumers Oral = 25 (mg/m<sup>3</sup>)

PNEC

Freshwater = 2.2 (mg/l)

Sea-water = 0.22 (mg/l)

Intermittent emission = 1.2 (mg/l)

STP = 43 (mg/l)

Soil = 0.72 (mg/kg Soil)

Citric acid

PNEC

Freshwater = 0.44 (mg/l)

Freshwater Sediment = 3.46 (mg/kg/Sediment)

Sea-water = 0.044 (mg/l)

Sea-water Sediment = 34.6 (mg/kg/Sediment)

STP = 1000 (mg/l)

# Professional Detergent for dishwashers

Soil = 33.1 (mg/kg Soil)

## 8.2 Exposure controls

Suitable technical controls:

Professional use:

No controls expected.

Individual protective measures:



a) Protection of the eyes / face

During the handling of the undiluted product use safety goggles (sealed goggles) (EN 166).

b) Skin protection

i) Hand protection

During the handling of the undiluted product use chemical-resistant protective gloves (EN 374-1/EN374-2/EN374-3).

ii) Other

Wear standard work clothing.

c) Respiratory protection

Not necessary for standard use.

d) Thermal hazards

No hazard to indicate.

Environmental exposure controls:

Use according to good working practices, avoiding contamination of the environment.

## SECTION 9. Physical and chemical properties

### 9.1 Information on fundamental physical and chemical properties

Physical and chemical properties	Value	Method of determination
Aspect	clear yellow liquid	
Fragrance	lemon	
Olfactory threshold	not available	
pH	> 13	
Melting point/freezing point	< 0°C	
Initial boiling point and boiling interval	approximately 100°C	
Flash point	non flammable	ASTM D92
Evaporation rate	not available	
Flammability (solids, gas)	non flammable	
Upper/lower limits of flammability or explosiveness	non flammable	
Vapour pressure	not available	
Vapour density	not available	
Relative density	1,270 g/ml	
Solubility	in water	
Solubility in water	complete	
Partition coefficient: n-octanol/water	not available	
Self-ignition temperature	not available	
Decomposition temperature	not available	

# Professional Detergent for dishwashers

Viscosity	not available	
Explosive properties	non explosive	
Oxidising properties	non oxidising	

## 9.2 Other information

No data available

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

No risk of reactivity in the conditions of use provided for.

### 10.2 Chemical stability

The product is stable.

### 10.3 Possibility of dangerous reactions

There are no dangerous reactions if handled and stored according to instructions.

### 10.4 Conditions to be avoided

No specific data.

### 10.5 Incompatible materials

Concentrated acids.

### 10.6 Dangerous decomposition products

It does not decompose if used for the purposes provided for.

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

ATE (mix) oral = 8,900.0 mg/kg

ATE (mix) dermal = N.A.

ATE (mix) inhal = 55.0 mg/l/4 h

- (a) acute toxicity: according to the data available the criteria of classification are not met.
- (b) corrosion / irritation of the skin: Corrosive product: causes severe skin burns and eye damage.
- (c) severe eye damage / irritation: Corrosive product: causes severe skin burns and eye damage.
- (d) sensitisation of respiratory tracts or the skin: according to the data available the criteria of classification are not met.
- (e) mutagenicity of germ cells: according to the data available the criteria of classification are not met.
- (f) carcinogenicity: according to the data available the criteria of classification are not met.
- (g) reproductive toxicity: according to the data available the criteria of classification are not met.
- (h) specific target organ toxicity (STOT) single exposure: according to the data available the criteria of classification are not met.
- (i) specific target organ toxicity (STOT) repeated exposure: Warning: the product may cause serious irreversible harm to human health in cases of prolonged or repeated exposure.
- (j) danger of aspiration: according to the data available the criteria of classification are not met.

Relative to the substances contained:

Tetrasodium ethylenediaminetetraacetate

LD50 Oral (rat) (mg/kg of body weight) = 1780

LD50 Skin (rat or rabbit) (mg/kg of body weight) = 2000

Sodium hydroxide (\*)

LD L0 oral administration (rabbit) = 500 mg/kg

LD50 Skin (rat or rabbit) (mg/kg of body weight) = 1300

CL50 Inhalation (rat) of vapour/dust/aerosol/smoke (mg/1/4h) or gas (ppmV/4h) = 4800

Citric acid

Acute oral toxicity (Rat): > 11700 mg/kg (Method OECD TG 401)

Acute oral toxicity (Mouse): > 5400 mg/kg (Method OECD TG 401)

Eye contact: may cause irritation

# Professional Detergent for dishwashers

Skin contact: may cause irritation  
LD50 Skin (rat or rabbit) (mg/kg of body weight) = 2000

## SECTION 12. Ecological information

### 12.1 Toxicity

Relative to the substances contained:

Tetrasodium ethylenediaminetetraacetate

CL50 (96 h): > 100 mg/l, *Lepomis macrochirus* (OPP 72-1 EPA directives, static)

CE50 (48 h): > 100 mg/l, *Daphnia magna* (DIN 38412 part 11, static)

CE50 (72 h): > 100 mg/l (rate of growth), *Scenedesmus obliquus* (Directive 88/302/CEE, part C, p 89, static)

CE20 (30 min): > 500 mg/l, active mud, domestic (OECD - guideline 209, aquatic)

NOEC (35 d): > = 36.9 mg/l, *Brachydanio rerio* (Guideline OECD 210, Flow-through.)

NOEC (21 d): 25 mg/l, *Daphnia magna* (OECD - guideline 211, semi-static)

CL50 (14 d): 156 mg/kg, *Eisenia foetida* (OECD - guideline 207, artificial soil)

Sodium hydroxide (\*)

EC50 *Daphnia* (*Ceriodaphnia dubia*): 40.4 mg/l, 48 h

LC50 Fish (*Gambusia affinis*): 125 mg/l, 96 h

Citric acid

Toxicity for fish (goldfish), LC50: 440-760 mg/l, 96 h

Toxicity for bacteria: > 10000 mg/l

Aquatic toxicity:

EC50 (*Chlorella vulgaris*): 18000-32000 mg/l (OECD 201)

EC50 (*daphnia magna*): 5600-10000 mg/l (OECD 202)

LC50 (*daphnia magna*): 1535 mg/l, 24h

LC50 (Fish): 440 mg/l, 48h

Use according to good working practices, avoiding contamination of the environment.

### 12.2 Persistence and degradability

Relative to the substances contained:

Tetrasodium ethylenediaminetetraacetate

Partially biodegradable according to OECD tests

- BOD5: 50 mg O<sub>2</sub>/g

- COD: 260 mg O<sub>2</sub>/g

Theoretical oxygen demand (ThOD): 262 mg/g

Citric acid

Rapidly biodegradable > 98% (DIN 38412)

COD: 750 mg/O<sub>2</sub>/g

### 12.3 Bioaccumulation potential

Relative to the substances contained:

Tetrasodium ethylenediaminetetraacetate

Bioconcentration factor: ca. 1.8 (28 d), *Lepomis macrochirus*

### 12.4 Mobility in soil

No data available,

### 12.5 Results of PBT and vPvB evaluations

The substance/mixture DOES NOT contain PBT/vPvB substances pursuant to Regulation (EC) 1907/2006, appendix XIII.

### 12.6 Other adverse effects

No adverse effects found.

Regulation (EC) no. 2006/907 - 2004/648

The surfactant(s) contained in this formula conform(s) to the criteria for biodegradability established by regulation EC/648/2004 relating to detergents. All supporting data is available to the competent authorities of the Member States and will be supplied, upon their explicit request or on request of a producer of the formula, to the aforementioned authorities.

## SECTION 13. Considerations regarding disposal

### 13.1 Methods for the treatment of refuse

# Professional Detergent for dishwashers

Do not reuse empty containers. Dispose of them in accordance with regulations in force. Eventual product residue must be disposed of according to regulations in force by contacting an authorised company.

Reuse if possible. Send to an authorised disposal or incinerator plant under controlled conditions. Operate according to local and national dispositions in force.

## SECTION 14. Information on transportation

### 14.1 UN Number

ADR/RID/IMDG/ICAO-IATA: 1719

Eventual exemption from ADR if the following characteristics are satisfied:

Combined packaging: internal packaging 1 L pack 30 Kg

Internal packaging arranged in trays with shrink-wrap or extendible film: internal packaging 1 L pack 20 Kg

### 14.2 UN Shipping name

ADR/RID/IMDG: CAUSTIC ALKALI LIQUID, N.O.S. (TETRASODIUM ETHYLENEDIAMINETETRAACETATE, SODIUM HYDROXIDE)

ICAO-IATA: CAUSTIC ALKALI LIQUID, N.O.S. (Tetrasodium ethylenediaminetetraacetate, Sodium Hydroxide)

### 14.3. Hazard classes associated with transport

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

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

ADR: Tunnel restriction code: E

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

IMDG - EmS: F-A, S-B



### 14.4 Packaging group

ADR/RID/IMDG/ICAO-IATA: II

### 14.5 Environmental hazard

ADR/RID/ICAO-IATA: The product is not hazardous for the environment

IMDG: Marine contaminant: No

### 14.6 Special precautions for users

Transportation must be carried out with vehicles authorised for the transportation of hazardous goods according to the provisions of the current edition of the A.D.R. Agreement and applicable national regulations.

Transportation must be carried out in the original packaging and, in any case, in packaging which is composed of materials which are resistant to the contents and which are not susceptible to the generation of hazardous reactions with the contents. Those responsible for the loading and unloading of dangerous goods must have received suitable training regarding the risks presented by the substance and the eventual procedures to be adopted in the case of emergency situations.

### 14.7 Bulk transportation according to appendix II of MARPOL 73/78 and the IBC code

Bulk transportation is not permitted

## SECTION 15. Information on regulations

### 15.1 Specific legislative and regulative dispositions regarding health, safety and the environment for the substance or mixture.

Legislative Decree 3/2/1997 no. 52 (Classification, packaging and labelling of hazardous substances). Legislative Decree 14/03/2003 no. 65 (Classification, packaging and labelling of hazardous substances). Legislative Decree 2/2/2002 no. 25 (Risks deriving from chemical agents during work). Ministerial Decree for Work 26/02/2004 (Professional exposure limits); Ministerial Decree 03/04/2007 (Fulfilment of directive no. 2006/8/EC). Regulation (EC) no. 1907/2006 (REACH), Regulation (EC) no. 1272/2008 (CLP), Regulation (EC) no. 790/2009. Legislative Decree 21 September 2005 no. 238 (Seveso Directive III).

### 15.2 Evaluation of chemical safety

The supplier has not carried out an evaluation of chemical safety

## SECTION 16. Other information

### 16.1 Other information

Descriptions of hazard indications shown in point 3

# Professional Detergent for dishwashers

---

H302 = Harmful if swallowed.  
H318 = Causes serious eye damage.  
H332 = Harmful if inhaled.  
H373 = May cause damage to organs through prolonged or repeated exposure.  
H290 = May be corrosive to metals.  
H314 = Causes severe skin burns and eye damage.  
H319 = Causes serious eye irritation.

Classification carried out on the basis of data regarding all of the components in the mixture

Principal regulatory references:  
Directive 2001/60/EC  
Regulation 2008/1272/EC  
Regulation 2010/453/EC