Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

* SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: THALATTA DESCALING LIQUID
UFI:
6X7H-F1K1-2009-T5AJ
The product does not contain any nanomaterials.
1.2 Relevant identified uses of the substance or mixture and uses advised against
Acid based liquid product, is highly effective to remove scale
Life cycle stages
IS Use at industrial Sites
PW Widespread use by professional workers
C Consumer use
Sector of Use
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
SU0 Other
Product category PC35 Washing and cleaning products (including solvent based products)
Technical function Cleaning agent
Application of the substance / the mixture
All-purpose cleaner
Bath cleaner
Deliming agent
Desalting agent
Surface cleanser
Toilet cleaner
Uses advised against
Highly corrosive, should be handled with care. It may discolor some metals, chrome coatings, stainless and alloys. Use on acid-resistant surfaces only, therefore a compatibility test is recommended on a hidden part of the surface to treat before use.

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
VIORYL S.A.
28th km Athens - Lamia Nat. Road
Afidnes, 190 14
Greece
+30 22950 45100
regulatory@vioryl.gr

Further information obtainable from: Regulatory Affairs Department
1.4 Emergency telephone number:
Poison centre
(+30) 210 7793777

* SECTION 2: Hazards identification

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


GHS05 corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.

(Contd. on page 2)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

Trade name: THALATTA DESCALING LIQUID

(Contd. of page 1)



GHS07

STOT SE 3 H335 May cause respiratory irritation.

Additional information: The full text of the classification and labelling elements mentioned is given in Section 16.

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



GHS05 GHS07

Signal word Danger

Hazard-determining components of labelling:
hydrochloric acid
cocoalkyldimethylamine oxide
Ethoxylated Alcohol

Hazard statements
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P260	Do not breathe dusts or mists.
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.
P321	Specific treatment (see on this label).
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

*

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 7647-01-0 hydrochloric acid >10–<25%
EINECS: 231-595-7 Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; STOT SE 3, H335
Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 %
Skin Irrit. 2; H315: 10 % ≤ C < 25 %
Eye Irrit. 2; H319: 10 % ≤ C < 25 %
STOT SE 3; H335: C ≥ 10 %

(Contd. on page 3)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

Trade name: THALATTA DESCALING LIQUID

(Contd. of page 2)

CAS: 61788-90-7 cocoalkyldimethylamine oxide ≥1–<2.0%
EINECS: 263-016-9 Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=1); Aquatic Chronic 2, H411; Acute Tox. 4, H302; Skin Irrit. 2, H315

CAS: 160901-19-9 Ethoxylated Alcohol ≥1–≤2.5%
Eye Dam. 1, H318; Acute Tox. 4, H302; Aquatic Chronic 3, H412

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information:
Immediately remove any clothing soiled by the product.
Take affected persons out into the fresh air.
After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
After swallowing:
Drink plenty of water and provide fresh air. Call for a doctor immediately.
If symptoms persist consult doctor.
A person vomiting while laying on their back should be turned onto their side.
Seek immediate medical advice.
4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
5.2 Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced.
5.3 Advice for firefighters
Protective equipment: Mouth respiratory protective device.

*

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
Wear protective clothing.
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).
Use neutralising agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.

(Contd. on page 4)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

Trade name: THALATTA DESCALING LIQUID

(Contd. of page 3)

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
In case of prolonged storage, vapors or gases may form which will cause the swelling of the packaging
Information about fire - and explosion protection: Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Store away from foodstuffs.
Further information about storage conditions:
Keep container tightly sealed.
Store receptacle in a well ventilated area.
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:

CAS: 7647-01-0 hydrochloric acid

TWA (Greece) Short-term value: 7 mg/m³, 5 ppm
Long-term value: 7 mg/m³, 5 ppm
Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls
Appropriate engineering controls No further data; see section 7.
Individual protection measures, such as 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.
Avoid contact with the eyes and skin.
Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Hand protection



Protective gloves

(Contd. on page 5)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

Trade name: THALATTA DESCALING LIQUID

(Contd. of page 4)

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.

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.

Eye/face protection



Tightly sealed goggles

*

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information	
Physical state	Liquid
Colour:	Pale yellow to yellow
Odour:	Characteristic
Odour threshold:	Not determined
Melting point/freezing point:	Undetermined
Boiling point or initial boiling point and boiling range	100 °C (CAS: 7732-18-5 water, distilled, conductivity or of similar purity)
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	Not determined
Upper:	Not determined
Flash point:	>120 °C
Decomposition temperature:	Not determined
pH at 20 °C	<1
Viscosity:	
Kinematic viscosity	Not determined
Dynamic:	Not determined
Solubility	
water:	Not miscible or difficult to mix.
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure at 20 °C:	23 hPa (CAS: 7732-18-5 water, distilled, conductivity or of similar purity)
Density and/or relative density	
Density at 20°C at 20 °C	1.014–1.054 g/cm³
Density at 25°C	Not determined
Relative density	Not determined
Vapour density	Not determined

(Contd. on page 6)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

Trade name: THALATTA DESCALING LIQUID

(Contd. of page 5)

9.2 Other information

Appearance:	
Form:	Liquid
Important information on protection of health and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Solvent content:	
Water:	70.0 %
VOC (EC)	0.00 %
VOCV (CH)	0.00 %
Solids content:	0.0 %
Refractive index	1.348-1.358
Change in condition	
Evaporation rate	Not determined

Information with regard to physical hazard classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.
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 No dangerous reactions known.
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products: No dangerous decomposition products known.

*

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity Based on available data, the classification criteria are not met.

(Contd. on page 7)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

Trade name: THALATTA DESCALING LIQUID

(Contd. of page 6)

LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral LD50 ≥3315–≤3429 mg/kg

CAS: 7647-01-0 hydrochloric acid

Oral LD50 900 mg/kg (rabbit)

CAS: 61788-90-7 cocoalkyldimethylamine oxide

Oral LD50 >2000 mg/kg (rat)

CAS: 160901-19-9 Ethoxylated Alcohol

Oral LD50 13627–14865 mg/kg (rat)

Primary irritant effect:

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/irritation Causes serious eye damage.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure May cause respiratory irritation.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

* SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

Method

Analysing method

THALATTA DESCALING LIQUID OECD 301 F

Other information: The product is 74.3% biodegradable (regulatory threshold ≥60%). OECD Method 301F

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

Additional ecological information:

General notes:

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even extremely small quantities leak into the ground.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

(Contd. on page 8)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

Trade name: THALATTA DESCALING LIQUID

(Contd. of page 7)

*

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.
European waste catalogue

HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP6 Acute Toxicity

HP8 Corrosive

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number
ADR, IMDG, IATA UN3264
14.2 UN proper shipping name
ADR 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID)
IMDG CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID)
IATA Corrosive liquid, acidic, inorganic, n.o.s. (HYDROCHLORIC ACID)
14.3 Transport hazard class(es)

ADR, IMDG, IATA



Class 8 Corrosive substances.
Label 8
14.4 Packing group
ADR, IMDG, IATA II
14.5 Environmental hazards: Not applicable
14.6 Special precautions for user Warning: Corrosive substances.
Hazard identification number (Kemler code): 80
EMS Number: F-A,S-B
Segregation groups (SGG1) Acids
Stowage Category B
Stowage Code SW2 Clear of living quarters.
Segregation Code SG36 Stow "separated from" SGG18-alkalis.
SG49 Stow "separated from" SGG6-cyanides
14.7 Maritime transport in bulk according to IMO instruments Not applicable

Transport/Additional information:

ADR
Limited quantities (LQ) 1L
Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
Transport category 2

(Contd. on page 9)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

Trade name: THALATTA DESCALING LIQUID

(Contd. of page 8)

Tunnel restriction code	E
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID), 8, II

SECTION 15: Regulatory information

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

Directive 2012/18/EU
Named dangerous substances - ANNEX I None of the ingredients is listed.
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.
REGULATION (EU) 2019/1148
Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.
Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.
Regulation (EC) No 273/2004 on drug precursors

CAS: 7647-01-0 hydrochloric acid: 3
Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

CAS: 7647-01-0 hydrochloric acid: 3
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.
This Safety Data Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

Relevant phrases
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Department issuing SDS: Regulatory Affairs department

(Contd. on page 10)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.10.2026 Version number 9 (replaces version 8) Revision: 14.10.2026

Trade name: THALATTA DESCALING LIQUID

(Contd. of page 9)

Contact:
Regulatory Affairs department
regulatory@vioryl.gr
Date of previous version: 24.09.2024
Version number of previous version: 8
Abbreviations and acronyms:
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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)
VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
*** Data compared to the previous version altered.**