

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

#### 1.1. Product identifier

Product form : Mixtures  
 Product name : DESCALING LIQUID  
 Product code : UNIM014  
 Type of product : Acid cleaning product, descaling agent  
 Product group : Blend

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use  
 Industrial/Professional use spec : For professional use only  
 Industrial  
 Function or use category : Cleaning/washing agents and additives

Title	Use descriptors
	SU3, PC35, PROC5, ERC2

Full text of use descriptors: see section 16

##### 1.2.2. Uses advised against

No additional information available

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

UNIMARINE SERVICES INC.  
 60 MARKET SQUARE  
 BELIZE CITY  
 T +35725331054  
[info@unimarine-services.com](mailto:info@unimarine-services.com)

#### 1.4. Emergency telephone number

Emergency number : +35725331054

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 1B H314  
 Serious eye damage/eye irritation, Category 1 H318  
 Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335

Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

May cause respiratory irritation. Causes severe skin burns and eye damage. Causes serious eye damage.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) : Danger  
 Hazardous ingredients : Hydrochloric acid  
 Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage  
 H335 - May cause respiratory irritation  
 Precautionary statements (CLP) : P260 - Do not breathe vapours  
 P264 - Wash hands thoroughly after handling  
 P271 - Use only outdoors or in a well-ventilated area

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P280 - Wear eye protection, protective clothing, protective gloves  
 P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.  
 Rinse skin with water/shower

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrochloric acid	(CAS No) 7647-01-0 (EC No) 231-595-7;231-596-7 (EC Index No) 017-002-01-X (REACH-no) 01-2119484862-27	5 - 10	C; R34 Xi; R37	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335

Full text of R- and H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures general : If medical advice is needed, have product container or label at hand. Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : If skin burns appear, call a doctor immediately. Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : Burns.
- Symptoms/injuries after eye contact : Serious damage to eyes.
- Symptoms/injuries after ingestion : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

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

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : carbon dioxide (CO<sub>2</sub>), foam, water spray, powder.

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

- Fire hazard : Not flammable.
- Hazardous decomposition products in case of fire : Corrosive vapours. Chlorine.

### 5.3. Advice for firefighters

- Precautionary measures fire : Evacuate area.
- Firefighting instructions : Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

No additional information available

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### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe vapours. Wear personal protective equipment.  
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Keep container closed when not in use. Store in a well-ventilated place. Store away from freezing (avoid freezing during storage). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Incompatible products : Strong bases. Oxidizing agent.  
Incompatible materials : aluminium. Metals.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Hydrochloric acid (7647-01-0)		
EU	Local name	Hydrogen chloride
EU	IOELV TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	5 ppm
EU	IOELV STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
EU	IOELV STEL (ppm)	10 ppm
Belgium	Local name	Hydrogène (chlorure d') # Waterstofchloride
Belgium	Limit value (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	5 ppm
Belgium	Short time value (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Belgium	Short time value (ppm)	10 ppm
France	Local name	Chlorure d'hydrogène (Acide chlorhydrique)
France	VLE (mg/m <sup>3</sup> )	7,6 mg/m <sup>3</sup>
France	VLE (ppm)	5 ppm
France	Note (FR)	Valeurs réglementaires contraignantes
Germany	Local name	Hydrogenchlorid
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational exposure limit value (ppm)	2 ppm
Germany	Remark (TRGS 900)	DFG,EU,Y
Italy	Local name	Acido cloridrico
Italy	OEL TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Italy	OEL TWA (ppm)	5 ppm
Italy	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Italy	OEL STEL (ppm)	10 ppm
Spain	Local name	Cloruro de hidrógeno
Spain	VLA-ED (mg/m <sup>3</sup> )	7,6 mg/m <sup>3</sup>
Spain	VLA-ED (ppm)	5 ppm
Spain	VLA-EC (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Spain	VLA-EC (ppm)	10 ppm

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### Hydrochloric acid (7647-01-0)

Spain	Notes	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país).
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### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Hand protection:

protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Colour	: Colourless.
Odour	: Acidic.
Odour threshold	: No data available
pH	: 1 - 2
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1,13 - 1,18
Solubility	: Soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reacts exothermically with (some) bases.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

May react with bases, copper, silver, mercury, magnesium, zinc and their alloys.

#### 10.4. Conditions to avoid

Overheating.

#### 10.5. Incompatible materials

aluminium. metals (e.g. copper, brass).

#### 10.6. Hazardous decomposition products

Chlorine.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 1 - 2
Serious eye damage/irritation	: Causes serious eye damage. pH: 1 - 2
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

#### 12.2. Persistence and degradability

DESCALING LIQUID	
Persistence and degradability	This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer. inorganic wastes containing dangerous substances.

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

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

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

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### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR)	: 3264
UN-No. (IMDG)	: 3264
UN-No. (IATA)	: 3264
UN-No. (ADN)	: 3264
UN-No. (RID)	: 3264

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Proper Shipping Name (IMDG)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Proper Shipping Name (IATA)	: Corrosive liquid, acidic, inorganic, n.o.s.
Proper Shipping Name (ADN)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Proper Shipping Name (RID)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Transport document description (ADR)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid), 8, II, (E)
Transport document description (IMDG)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II
Transport document description (IATA)	: UN 3264 Corrosive liquid, acidic, inorganic, n.o.s., 8, II
Transport document description (ADN)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II
Transport document description (RID)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II

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

##### ADR

Transport hazard class(es) (ADR)	: 8
Danger labels (ADR)	: 8



##### IMDG

Transport hazard class(es) (IMDG)	: 8
Danger labels (IMDG)	: 8



##### IATA

Transport hazard class(es) (IATA)	: 8
Hazard labels (IATA)	: 8



##### ADN

Transport hazard class(es) (ADN)	: 8
Danger labels (ADN)	: 8



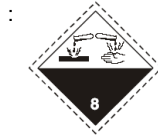
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### RID

Transport hazard class(es) (RID) : 8  
 Danger labels (RID) : 8



### 14.4. Packing group

Packing group (ADR) : II  
 Packing group (IMDG) : II  
 Packing group (IATA) : II  
 Packing group (ADN) : II  
 Packing group (RID) : II

### 14.5. Environmental hazards

Dangerous for the environment : No  
 Marine pollutant : No  
 Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : C1  
 Special provisions (ADR) : 274  
 Limited quantities (ADR) : 11  
 Excepted quantities (ADR) : E2  
 Packing instructions (ADR) : P001, IBC02  
 Mixed packing provisions (ADR) : MP15  
 Portable tank and bulk container instructions (ADR) : T11  
 Portable tank and bulk container special provisions (ADR) : TP2, TP27  
 Tank code (ADR) : L4BN  
 Vehicle for tank carriage : AT  
 Transport category (ADR) : 2  
 Hazard identification number (Kemler No.) : 80  
 Orange plates :



Tunnel restriction code (ADR) : E  
 EAC code : 2X  
 APP code : B

#### - Transport by sea

Special provisions (IMDG) : 274  
 Limited quantities (IMDG) : 1 L  
 Excepted quantities (IMDG) : E2  
 Packing instructions (IMDG) : P001  
 IBC packing instructions (IMDG) : IBC02  
 Tank instructions (IMDG) : T11  
 Tank special provisions (IMDG) : TP2, TP27  
 EmS-No. (Fire) : F-A  
 EmS-No. (Spillage) : S-B  
 Stowage category (IMDG) : B  
 Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.  
 MFAG-No : 154

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### - Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3
ERG code (IATA)	: 8L

### - Inland waterway transport

Classification code (ADN)	: C1
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

### - Rail transport

Classification code (RID)	: C1
Special provisions (RID)	: 274
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T11
Portable tank and bulk container special provisions (RID)	: TP2, TP27
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 80

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions  
 Contains no substance on the REACH candidate list  
 Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

##### Germany

VwVwS Annex reference	: Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed



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NIET-limitatieve lijst van voor de voortplanting : None of the components are listed  
giftige stoffen – Ontwikkeling

### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation
R34	Causes burns
R37	Irritating to respiratory system
C	Corrosive
Xi	Irritant
ERC2	Formulation of preparations
PC35	Washing and cleaning products (including solvent based products)
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
SU3	Industrial uses: Uses of substances as such or in preparations* at industrial sites

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*