



## PH ZERO

## Safety data sheet according to regulation (CE) n. 1907/2006 (REACH), Annex II, and successive adjustments introduced by Commission Regulation (EU) no. 2015/830

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

#### 1.1. Product identifier

Product name **PH ZERO**  
Chemical name and synonym **Strong acid descaler**

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

Intended use **Strong acid descaler.**

Identified Uses	Industrial	Professional	Consumer
Uses	✓	✓	✓

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

Name **FILA INDUSTRIA CHIMICA S.P.A.**  
Full address **Via Garibaldi, 58**  
District and Country **35018 San Martino di Lupari (PD)  
ITALIA**  
**Tel. +39.049.9467300**  
**Fax +39.049.9460753**

e-mail address of the competent person  
responsible for the Safety Data Sheet **sds@filasolutions.com**

#### 1.4. Emergency telephone number

For urgent inquiries refer to **TEL +39.049.9467300 (Monday –  
Friday; 8.30 - 12.30 and 14.00 - 17.30 )**  
**UNITED KINGDOM: NHS Direct 111 (In England, Scotland North Ireland) 08454647**  
**(Wales); IRELAND 018092166**

### SECTION 2. Hazards identification

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

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

#### Hazard classification and indication:

Substance or mixture corrosive to metals, category 1	H290	May be corrosive to metals.
Skin corrosion, category 1	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.



## PH ZERO

**Safety data sheet**  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830

According to Annex II to REACH - Regulation 2015/830

## 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Danger

Hazard statements:

**H290** May be corrosive to metals.  
**H314** Causes severe skin burns and eye damage.  
**H412** Harmful to aquatic life with long lasting effects.

Precautionary statements:

**P501** Dispose of contents / container in accordance with local/regional/national/international regulation.  
**P102** Keep out of reach of children.  
**P260** Do not breathe dust / fume / gas / mist / vapours / spray.  
**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.  
**P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

**Contains:** PHOSPHORIC ACID  
HYDROCHLORIC ACID  
OLEYL BIS(2-HYDROXYETHYL)AMINE  
TRIMETHYLOCTADECYLAMMONIUM CHLORIDE

## 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

## SECTION 3. Composition/information on ingredients

### 3.1. Substances



## PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

Information not relevant

### 3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>PHOSPHORIC ACID</b>		
CAS 7664-38-2	$14 \leq x < 19$	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B
EC 231-633-2		
INDEX 015-011-00-6		
Reg. no. 01-2119485924-24		
<b>HYDROCHLORIC ACID</b>		
CAS 7647-01-0	$4 \leq x < 5$	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Classification note according to Annex VI to the CLP Regulation: B
EC 231-595-7		
INDEX 017-002-01-X		
Reg. no. 01-2119484862-27		
<b>OLEYL BIS(2-HYDROXYETHYL)AMINE</b>		
CAS 25307-17-9	$1 \leq x < 2$	Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1
EC 246-807-3		
INDEX -		
Reg. no. 01-2119510876-35		
<b>TRIMETHYLOCTADECYLAMMONIUM CHLORIDE</b>		
CAS 112-03-8	$0,3 \leq x < 0,35$	Acute Tox. 3 H311, Acute Tox. 4 H302, Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1
EC 203-929-1		
INDEX -		
Reg. no. 01-2119970559-21		
<b>Benzyl acetate</b>		
CAS 140-11-4	$0 \leq x < 0,02$	Aquatic Chronic 3 H412
EC 205-399-7		
INDEX -		
Reg. no. 01-2119638272-42		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

**PH ZERO**

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

**SECTION 4. First aid measures****4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

**SECTION 5. Firefighting measures****5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

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

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

**5.3. Advice for firefighters**

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures**



**FILA INDUSTRIA CHIMICA S.P.A.**

Revision nr. 16

Dated 21/03/2019

Printed on 11/10/2019

Page n. 5/20

Replaced revision:15 (Dated: 07/12/2016)

**PH ZERO**

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

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

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

#### 6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7. Handling and storage

#### 7.1. Precautions for safe handling

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

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

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

Storage class TRGS 510 (Germany):

8B

#### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

#### 8.1. Control parameters

Regulatory References:

CZE

Česká Republika

Nařízení vlády č. 361/2007 Sb. kterým se stanoví podmínky ochrany zdraví při práci



## PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

DEU	Deutschland	TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
DNK	Danmark	Graensevaerdier per stoffer og materialer
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
FIN	Suomi	HTP-arvot 2012. Haitallisiksi tunnetut pitoisuudet - Sosiaali- ja terveysministeriön julkaisuja 2012:5
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
HRV	Hrvatska	NN13/09 - Ministarstvo gospodarstva, rada i poduzetništva
HUN	Magyarország	50/2011. (XII. 22.) NGM rendelet a munkahelyek kémiai biztonságáról
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Databank of the social and Economic Council of Netherlands (SER) Values, AF 2011:18
NOR	Norge	Veiledning om Administrative normer for forurensning i arbeidsatmosfære
POL	Polska	ROZPORZADZENIE MINISTRA RODZIN Y, PRAC Y I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República I 26; 2012-02-06
ROU	România	Monitorul Oficial al României 44; 2012-01-19
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 20. júna 2007
SVN	Slovenija	Uradni list Republike Slovenije 04.06.2015 (1602) - Pravilnik o spremembah in dopolnitvah Pravilnika o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu
SWE	Sverige	Occupational Exposure Limit Values, AF 2011:18
TUR	Türkiye	KİMYASAL MADDELERLE ÇALIŞMALARDA SAĞLIK VE GÜVENLİK ÖNLEMLERİ HAKKINDA YÖNETMELİK - Resmi Gazete Tarihi: 12.08.2013 Resmi Gazete Sayısı: 28733
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

**PHOSPHORIC ACID  
Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV	CZE	1		2	
AGW	DEU	2		4	INHAL
MAK	DEU	2		4	INHAL
TLV	DNK	1			
VLA	ESP	1		2	
HTP	FIN	1		2	
VLEP	FRA	1	0,2	2	0,5
WEL	GBR	1		2	
TLV	GRC	1		3	
GVI	HRV	1		2	
AK	HUN	1		2	
VLEP	ITA	1		2	
OEL	NLD	1		2	
TLV	NOR	1			
NDS	POL	1		2	
VLE	PRT	1		2	
TLV	ROU	1		2	

**FILA INDUSTRIA CHIMICA S.P.A.**

Revision nr. 16

Dated 21/03/2019

Printed on 11/10/2019

Page n. 7/20

Replaced revision:15 (Dated: 07/12/2016)

**PH ZERO****Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

NPHV	SVK	1	2
MV	SVN	1	2
MAK	SWE	1	3
ESD	TUR	1	2
OEL	EU	1	2
TLV-ACGIH		1	3

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			0,73 mg/m3	VND	2 mg/m3	VND	2,92 mg/m3	VND

**HYDROCHLORIC ACID  
Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	7,6	5	15	10
VLEP	ITA	8	5	15	10
NDS	POL	5		10	
VLE	PRT	8	5	15	10
TLV	ROU	8	5	15	10
MV	SVN	8	5	16	10
OEL	EU	8	5	15	10
TLV-ACGIH				2,9 (C)	2 (C)

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	0,036	mg/l
Normal value in marine water	0,036	mg/l
Normal value for water, intermittent release	0,045	mg/l
Normal value of STP microorganisms	0,036	mg/l

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			15 mg/m3	8 mg/m3			15 mg/m3	8 mg/m3

**OLEYL BIS(2-HYDROXYETHYL)AMINE****Predicted no-effect concentration - PNEC**

Normal value in fresh water	0,000214	mg/l
Normal value in marine water	0,0000214	mg/l

**FILA INDUSTRIA CHIMICA S.P.A.**

Revision nr. 16

Dated 21/03/2019

Printed on 11/10/2019

Page n. 8/20

Replaced revision:15 (Dated: 07/12/2016)

**PH ZERO****Safety data sheet according to regulation (CE) n. 1907/2006 (REACH), Annex II, and successive adjustments introduced by Commission Regulation (EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

Normal value for fresh water sediment	1,692	mg/kg
Normal value for marine water sediment	0,1692	mg/kg
Normal value for water, intermittent release	0,00087	mg/l
Normal value of STP microorganisms	1,5	mg/l
Normal value for the food chain (secondary poisoning)	2	mg/kg
Normal value for the terrestrial compartment	5	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,214 mg/kg bw/d				
Inhalation			VND	0,745 mg/m3			VND	2,112 mg/m3
Skin			VND	0,214 mg/kg bw/d			VND	0,3 mg/kg bw/d

**TRIMETHYLOCTADECYLAMMONIUM CHLORIDE**

## Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00068	mg/l
Normal value in marine water	0,000068	mg/l
Normal value for fresh water sediment	9,27	mg/kg
Normal value for marine water sediment	0,927	mg/kg
Normal value for water, intermittent release	0,00037	mg/l
Normal value of STP microorganisms	0,48	mg/l
Normal value for the terrestrial compartment	7	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				2,83 mg/kg/d				
Inhalation			NPI	0,98 mg/m3			NPI	3,32 mg/m3
Skin			0,06 mg/cm2	2,83 mg/kg bw/d			0,11 mg/cm2	4,7 mg/kg bw/d

**Benzyl acetate  
Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min		
		mg/m3	ppm	mg/m3	ppm
OEL	EU		10		

Legend:





## PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

**8.2. Exposure controls**

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

**HAND PROTECTION**

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

**SKIN PROTECTION**

Wear category III professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

**EYE PROTECTION**

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

**ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

**SECTION 9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance

liquid



## PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

Colour	transparent
Odour	pungent
Odour threshold	Not available
pH	0,8
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	> 93 °C
Evaporation Rate	Not available
Flammability of solids and gases	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,111
Solubility	Readily soluble
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

**9.2. Other information**

VOC (Directive 2010/75/EC) : 0,21 % - 2,28 g/litre

**SECTION 10. Stability and reactivity****10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

## PHOSPHORIC ACID

Decomposes at temperatures above 200°C/392°F.



## PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

**10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

## PHOSPHORIC ACID

Risk of explosion on contact with: nitromethane. May react dangerously with: alkalis, sodium borohydride.

## HYDROCHLORIC ACID

Risk of explosion on contact with: alkaline metals, aluminium powder, hydrogen cyanide, alcohol.

**10.4. Conditions to avoid**

None in particular. However the usual precautions used for chemical products should be respected.

**10.5. Incompatible materials**

None.

## PHOSPHORIC ACID

Incompatible with: metals, strong alkalis, aldehydes, organic sulphides, peroxides.

## HYDROCHLORIC ACID

Incompatible with: alkalis, organic substances, strong oxidants, metals.

**10.6. Hazardous decomposition products**

Due to thermal decomposition or in case of fire, gases and vapors can be released that are potentially harmful to health.

## PHOSPHORIC ACID

May develop: phosphoryl oxides.



## PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

HYDROCHLORIC ACID

In decomposition develops: hydrochloric acid fumes.

## SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

### 11.1. Information on toxicological effects

#### Metabolism, toxicokinetics, mechanism of action and other information

Information not available

#### Information on likely routes of exposure

Information not available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

#### Interactive effects

Information not available

#### ACUTE TOXICITY

LC50 (Inhalation) of the mixture:  
Not classified (no significant component)  
LD50 (Oral) of the mixture:  
>2000 mg/kg  
LD50 (Dermal) of the mixture:  
>2000 mg/kg

PHOSPHORIC ACID

LD50 (Oral) 1530 mg/kg Rat

LD50 (Dermal) 2740 mg/kg Rabbit



PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

LC50 (Inhalation) > 0,85 mg/l/1h Rat

OLEYL BIS(2-HYDROXYETHYL)AMINE

LD50 (Oral) 1260 mg/kg rat

TRIMETHYLOCTADECYLAMMONIUM CHLORIDE

LD50 (Oral) 702,5 mg/kg rat

LD50 (Dermal) 1600 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin  
Classification according to the experimental Ph value

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class



## PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**SECTION 12. Ecological information**

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

**12.1. Toxicity**

## PHOSPHORIC ACID

LC50 - for Fish	3,25 mg/l/96h <i>Lepomis macrochirus</i>
EC50 - for Crustacea	> 100 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h <i>Desmodesmus subspicatus</i>

## OLEYL BIS(2-HYDROXYETHYL)AMINE

LC50 - for Fish	0,1 mg/l/96h <i>Danio rerio</i>
EC50 - for Crustacea	0,043 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	0,054 mg/l/72h <i>Pseudokirchnerella subcapitata</i>

TRIMETHYLOCTADECYLAMMONIUM  
CHLORIDE

LC50 - for Fish	0,07 mg/l/96h <i>Brachydanio rerio</i> (new name: <i>Danio rerio</i> )
EC50 - for Crustacea	0,03 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	0,05 mg/l/72h <i>Pseudokirchnerella subcapitata</i> (reported as <i>Selenastrum capricornutum</i> )
Chronic NOEC for Fish	0,0322 mg/l <i>Pimephales promelas</i>
Chronic NOEC for Crustacea	0,0068 mg/l <i>Daphnia magna</i>

**12.2. Persistence and degradability**

## PHOSPHORIC ACID

Solubility in water	> 850000 mg/l
Degradability: information not available	

**PH ZERO****Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

**HYDROCHLORIC ACID**

Solubility in water &gt; 10000 mg/l

Degradability: information not available

**OLEYL BIS(2-HYDROXYETHYL)AMINE**

Entirely degradable

**TRIMETHYLOCTADECYLAMMONIUM  
CHLORIDE**

Rapidly degradable

**12.3. Bioaccumulative potential**

Information not available

**12.4. Mobility in soil**

Information not available

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

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

**12.6. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information****14.1. UN number**



PH ZERO

Safety data sheet according to regulation (CE) n. 1907/2006 (REACH), Annex II, and successive adjustments introduced by Commission Regulation (EU) no. 2015/830

According to Annex II to REACH - Regulation 2015/830

ADR / RID, IMDG, 3264 IATA:

14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID, SOLUTION; HYDROCHLORIC ACID SOLUTION)
IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID, SOLUTION; HYDROCHLORIC ACID, SOLUTION)
IATA: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID, SOLUTION; HYDROCHLORIC ACID SOLUTION)

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8
IMDG: Class: 8 Label: 8
IATA: Class: 8 Label: 8



14.4. Packing group

ADR / RID, IMDG, III IATA:

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID: HIN - Kemler: 80 Limited Quantities: - Tunnel restriction code: (E)
IMDG: Special Provision: - Limited Quantities: -
EMS: F-A, S-B Maximum quantity: 30
IATA: Cargo: Maximum quantity: 1 Packaging instructions: 812
Pass.: Maximum quantity: 1 Packaging instructions: 808





FILA INDUSTRIA CHIMICA S.P.A.

Revision nr. 16

Dated 21/03/2019

Printed on 11/10/2019

Page n. 17/20

Replaced revision:15 (Dated: 07/12/2016)

PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

Special Instructions: -

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

Information not relevant

## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

#### Product

Point 3 - 40

#### Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

#### Substances subject to authorisation (Annex XIV REACH)

None

#### Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

#### Substances subject to the Rotterdam Convention:

None

#### Substances subject to the Stockholm Convention:

None

#### Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

### 15.2. Chemical safety assessment



## PH ZERO

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

A chemical safety assessment has been performed for the following contained substances

PHOSPHORIC ACID

HYDROCHLORIC ACID

OLEYL BIS(2-HYDROXYETHYL)AMINE

TRIMETHYLOCTADECYLAMMONIUM CHLORIDE

**SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>Met. Corr. 1</b>	Substance or mixture corrosive to metals, category 1
<b>Acute Tox. 3</b>	Acute toxicity, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Skin Corr. 1C</b>	Skin corrosion, category 1C
<b>Skin Corr. 1</b>	Skin corrosion, category 1
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, category 1
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H290</b>	May be corrosive to metals.
<b>H311</b>	Toxic in contact with skin.
<b>H302</b>	Harmful if swallowed.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H335</b>	May cause respiratory irritation.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.

## LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008



**FILA INDUSTRIA CHIMICA S.P.A.**

Revision nr. 16

Dated 21/03/2019

**PH ZERO**

Printed on 11/10/2019

Page n. 19/20

Replaced revision:15 (Dated: 07/12/2016)

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
  2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
  3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
  4. Regulation (EU) 2015/830 of the European Parliament
  5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
  11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA website
  - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.



**FILA INDUSTRIA CHIMICA S.P.A.**

Revision nr. 16

Dated 21/03/2019

Printed on 11/10/2019

Page n. 20/20

Replaced revision:15 (Dated: 07/12/2016)

**PH ZERO**

**Safety data sheet  
according to regulation  
(CE) n. 1907/2006 (REACH),  
Annex II, and successive  
adjustments introduced by  
Commission Regulation  
(EU) no. 2015/830**

According to Annex II to REACH - Regulation 2015/830

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 05 / 08 / 09 / 10 / 11 / 15 / 16.