

# Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

### 1.1. Product identifier

Code: 0030130  
Product name: ACIDO HP4  
Chemical name and synonym: ACIDO HP4

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

Sector of use: SU22 – Professional uses

#### Uses advised against. Avoid use:

- which involves the formation of aerosols where workers are exposed without respiratory protection.
- which involves the risk of splashes in the eyes / face where workers do not have eye / face protection.

Intended use: Descaling and limestone remover cleaner for building sites and acid-resistant building surfaces.

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

Name: MARBEC S.R.L.  
Full address: VIA CROCE ROSSA 5/i  
District and Country: 51037 MONTALE (PISTOIA)  
ITALY  
Tel. +390573/959848  
Fax +390573/959385

e-mail address of the competent person  
responsible for the Safety Data Sheet

info@marbec.it

### 1.4. Emergency telephone number

For urgent inquiries refer to

MARBEC srl  
0573959848 h8.30-13 h14-18 o 335/7267921  
Telephone number of Poison Centers active 24/24 hours  
CAV IRCSS Fondazione Maugeri – Pavia 0039-0382-24444  
CAV Ospedali Riuniti – Bergamo 0039-800-883300  
CAV Ospedale Niguarda Ca` Granda – Milano 0039-02-66101029  
CAV Ospedale Careggi- Firenze 0039-055-7947819  
CAV Policlinico Gemelli – Roma 0039-06-3054343  
CAV Policlinico Umberto I – Roma 0039-06 49978000  
CAV Ospedale Cardarelli – Napoli 0039-081 5453333

## 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:

Acute toxicity, category 4	H302	Harmful if swallowed.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.

**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:

<b>H302</b>	Harmful if swallowed.
<b>H314</b>	Causes severe skin burns and eye damage.

Precautionary statements:

<b>P260</b>	Do not breathe dust / fume / gas / mist / vapours / spray.
<b>P305+P351+P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P303+P361+P353</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
<b>P280</b>	Wear protective gloves/ protective clothing / eye protection / face protection.
<b>P301+P330+P331</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
<b>P304+P340</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Contains:**                      75% phosphoric acid, ammonium bifluoride, non-ionic surfactants <5%

**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.**

Information not applicable.

**3.2. Mixtures**

Contains:

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

Identification	x = Conc. %	Classification 1272/2008
<b>Phosphoric Acid 75%</b>		
CAS 7664-38-2	30 ≤ x < 50	Met. Corr. 1 H290, Acute Tox. 4 H302, Skin Corr. 1B H314
EC 231-633-2		
INDEX 015-011-00-6		
Reg. no. 01-2119485924-24-005		
<b>PROPAN-2-OL</b>		
CAS 67-63-0	1 ≤ x < 3	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
EC 200-661-7		
INDEX 603-117-00-0		
Reg. no. 01-2119457558-25-xxxx		
<b>AMMONIUM BIFLUORIDE</b>		
CAS 1341-49-7	1 ≤ x < 3	Acute Tox. 3 H301, Skin Corr. 1B H314
EC 215-676-4		
INDEX 009-009-00-4		
Reg. no. 01-2119489180-38-xxxx		

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

**EYES:** Exposure causes intense tearing and can cause edema and burns with possible permanent eye damage. Burns are difficult to diagnose at the beginning. Wash immediately and abundantly with water, keeping the eyelids wide open. Consult a doctor immediately and continue with saline.

**SKIN:** In relation to the duration of the contact and the speed of the intervention, the product causes rashes, edema, severe burns. Burns are initially difficult to identify. Even contact with product solutions can lead to chemical burns that are difficult to diagnose at the beginning. The fluoride ions penetrate quickly through the skin and tissues causing their necrosis and bone decalcification. Contrary to other cases that can easily be quenched, the decalcification process can continue for days. Remove all clothing immediately, even if only suspected of being contaminated. Wash thoroughly and apply a calcium gluconate ointment, wash thoroughly with water.

If the irritation is as extensive as the palm of the hand administer orally six effervescent tablets of calcium in water (400 mg of calcium per tablet). Repeat the treatment every two hours until hospitalization. If the burns are very extensive we recommend a complete bath in a 1% calcium gluconate solution. Medical help must be immediate.

**INGESTION:** May cause necrosis in the mouth, esophagus and stomach. May cause nausea, vomiting, diarrhea, circulatory collapse. Orally administering six calcium effervescent tablets in water (400 mg of calcium per tablet). If calcium is not available in tablets, give milk. Do not induce vomiting. Consult a doctor urgently.

**INHALATION:** May cause irritation of the respiratory tract and inflammation of the upper respiratory tract, pulmonary edema, fever, cyanosis with delayed effects even of 12/24 hours. Prolonged and repeated exposure of small doses may cause nasal congestion, bronchitis, and nose bleeding. Remove the patient from the contaminated area, keep it at rest and protect it from the cold. In case of respiratory difficulties administer oxygen. Orally administering six calcium effervescent tablets in water (400 mg of calcium per tablet). Consult a doctor urgently.

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

**ACUTE EFFECTS.** Each treatment must be timely and can reduce the extent of damage caused by the product (burns, poisoning). In any case of certain or suspected contamination, consult your doctor immediately. Have total showers and ocular showers in all the places where to use the product.

**DELAYED EFFECTS.** For symptoms and effects due to the contained substances see chap. 11

### 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

Choose the most appropriate extinguishing equipment for the specific case.

#### UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

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

The product is not combustible. If heated to decomposition temperature (>230° C) it can develop toxic and corrosive vapors or gases (HF and ammonium fluoride).

#### HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

The product is neither flammable nor combustible.

### 5.3. Advice for firefighters

#### 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

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

Remove unauthorized persons. Avoid breathing vapors / mists / gases.

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. Treat the gaseous effluents to avoid any air pollution.

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

If the product is a LIQUID: 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.

If the product is a SOLID: collect the spilled product with anti-spark mechanical means and place it in containers for recovery or disposal. Eliminate the residue with jets of water if there are no contraindications. 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

Avoid the formation of aerosols. In the case of aerosol formation it is necessary to adopt special protective measures (aspiration, respiratory protection). Provide good ventilation of the work environments. Remove contaminated clothing and protective equipment before accessing the areas where you eat.

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

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place. Keep containers away from any incompatible materials, see section 10 for details.

## 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
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 Republica I 26; 2012-02-06
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 2017

### Phosphoric Acid 75%

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
VLEP	FRA	1	0,2	2	0,5
WEL	GBR	1		2	
VLEP	ITA	1		2	
VLE	PRT	1		2	
OEL	EU	1		2	

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

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute Systemic	Chronic systemic
Oral				0,1 mg/kg bw/d				
Inhalation			0,36 mg/m3	4,57 mg/m3	2 mg/m3		1 mg/m3	10.7 mg/m3
Skin								VND

### PROPAN-2-OL

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	500	200	1000	400

VLEP	FRA			980	400
WEL	GBR	999	400	1250	500
TLV-ACGIH		492	200	983	400

Predicted no-effect concentration - PNEC					
Normal value in fresh water				140,9	mg/l
Normal value in marine water				140,9	mg/l
Normal value for fresh water sediment				552	mg/kg
Normal value for marine water sediment				552	mg/kg
Normal value for the terrestrial compartment				28	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	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral				26 mg/kg/d				
Inhalation				89 mg/kg				500 mg/m3
Skin				319 mg/kg/d				888 mg/kg/d

AMMONIUM BIFLUORIDE Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	2,5			
TLV-ACGIH		2,5			

Predicted no-effect concentration - PNEC					
Normal value in fresh water				1,3	mg/l
Normal value of STP microorganisms				76	mg/l
Normal value for the terrestrial compartment				22	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	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral		0,015 mg/kg bw/d		0,015 mg/kg bw/d				
Inhalation				0,045 mg/m3	3,8 mg/m3			2,3 mg/m3

Legend:

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

## 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.

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 II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

Not necessary for normal use.

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.

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

Appearance	liquid
Colour	Colourless slightly amber
Odour	characteristic
Odour threshold	Not available
pH	<1
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	>90°C
Evaporation rate	Not available
Flammability (solid, gas)	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	1,155 kg/l
Solubility	soluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

**9.2. Other information**

VOC (Directive 2010/75/EC) : 34,65 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.

#### AMMONIUM BIFLUORIDE

Decomposes at temperatures above 230°C/446°F.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

#### PHOSPHORIC ACID

Risk of explosion on contact with: nitromethane. May react dangerously with: alkali, sodium boron hydride.

#### AMMONIUM BIFLUORIDE

Risk of explosion on contact with: chlorine trifluoride, bromine trifluoride. May react dangerously with: acids.

### 10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

### 10.5. Incompatible materials

#### PHOSPHORIC ACID

May develop: phosphorus oxides.

#### AMMONIUM BIFLUORIDE

May develop: fluorine, hydrogen fluoride, ammonia, nitrogen gas.

### 10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

#### PHOSPHORIC ACID

May develop: phosphorus oxides.

#### AMMONIUM BIFLUORIDE

May develop: fluorine, hydrogen fluoride, ammonia, nitrogen gas.



**SECTION 11. Toxicological information****11.1. Information on toxicological effects**ACUTE TOXICITY

LC50 (Inhalation - vapors) of the mixture: Not classified (no relevant component).  
LC50 (Inhalation - mists / powders) of the mixture: Not classified (no relevant component).  
LD50 (Oral) of the mixture:  
2600,001 mg/kg  
LD50 (Dermal) of the mixture:  
Not classified (no significant component)

AMMONIUM BIFLUORIDE

LD50 (Oral) 130 mg/kg Rat

Fosforic Acid 75%

LD50 (Oral) > 300 mg/kg rat

PROPAN-2-OL

LD50 (Oral) 4710 mg/kg Rat

LD50 (Dermal) 12800 mg/kg Rat

LC50 (Inhalation) 72,6 mg/l/4h Rat

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

SENSITISATION

Does not meet the classification criteria for this hazard class

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

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****12.1. Toxicity**

## PROPAN-2-OL

LC50 - for Fish > 100 mg/l/96h leuciscus idus melanotus, static

EC50 - for Crustacea > 100 mg/l/48h dafnia magna Static test

EC50 - for Algae / Aquatic Plants > 100 mg/l/72h scenedesmus subspicatus. Static test

## Fosforic Acid 75%

LC50 - for Fish > 1,3 mg/l/96h Lepomis macrochirus

EC50 - for Crustacea > 100 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 100 mg/l/72h alga

**12.2. Persistence and degradability**

## AMMONIUM BIFLUORIDE

Solubility in water > 10000 mg/l

Degradability: information not available

## PROPAN-2-OL

Rapidly degradable

## Fosforic Acid 75%

Degradability: information not available

**12.3. Bioaccumulative potential**

## AMMONIUM BIFLUORIDE

BCF 0,5

## PROPAN-2-OL

Partition coefficient: n-octanol/water 0,05

**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.

Waste transportation may be subject to ADR restrictions.

**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**ADR / RID, IMDG, 3264  
IATA:**14.2. UN proper shipping name**

ADR / RID: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID; AMMONIUM BIFLUORIDE)

IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID; AMMONIUM BIFLUORIDE)

IATA: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID; AMMONIUM BIFLUORIDE)

**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: 5 L	Tunnel restriction code: (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 L	
		Maximum quantity: 60 L	Packaging instructions: 856
IATA:	Cargo:	Maximum quantity: 5 L	Packaging instructions: 852
	Pass.:		
	Special Instructions:	A3, A803	

#### 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

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

None

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**

A chemical safety assessment has been developed for the following substances in the mixture:  
Phosphoric acid, Ammonium Bifluoride, Isopropyl Alcol

**SECTION 16. Other information**

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

<b>Flam. Liq. 2</b>	Flammable liquid, category 2
<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>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>H225</b>	Highly flammable liquid and vapour.
<b>H290</b>	May be corrosive to metals.
<b>H301</b>	Toxic if swallowed.
<b>H302</b>	Harmful if swallowed.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H336</b>	May cause drowsiness or dizziness.

**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
- 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)
- 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.

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

**Changes to previous review:**

The following sections were modified:

02 / 03 / 08 / 09 / 11 / 12.

## EXPOSURE SCENARIO OF THE PRODUCT

### APPENDIX: EXPOSURE SCENARIOS N.1

**PHASE: TRANSFER OF PROFESSIONAL PRODUCT IN CONTAINER (BUCKET / MACHINERY) (ref AISE GEIS.8a .1.a.v1)- Open transfer of a concentrated product (with or without dilution); the operator is directly exposed to the product.**

### OPERATIVE CONDITIONS

Maximum duration	50 minutes/days
Conditions of process	Process takes place at room temperature. In case of dilution, tap water at a maximum temperature of 45 ° C. No local ventilation required (LEV); general good ventilation is sufficient at the workplace

### RISK MANAGEMENT MEASURES

Conditions and measures in relation to personal protective equipment (PPE), hygiene and health evaluation	Use protective gloves and goggles. See section 8 for specifications Ensure adequate staff training in relation to use and maintenance  
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### ADVICE OF GOOD PRACTICE

Do not eat or drink, do not smoke or use open flames	  
Wash hands after use. Avoid contact with injured skin Do not mix with other products.	  
Instructions for spillage	Dilute with water and collect.
Additional advices	Follows the instructions on the label, technical sheet and safety data sheet at section 7.

ENVIRONMENTAL MEASURES: Do not allow undiluted product to reach surface water. PROPERTIES OF

### THE COMPOSITION OF THE PRODUCT

The Classification of the product is on the label and in section 2. of the SDS
The classification of the product is based on that of the ingredients. The list of ingredients that contributes to the classification of the product is in the section 3 of the SDS.
The relevant limit values of the ingredients on which the exposure assessment is based are reported in section 8 of the SDS
The product may contain sensitizing components that may cause in some subjects an allergic reaction. The section 2 of the SDS reports these sensitizers if applicable to the product.

## DESCRIPTORS OF USE

SU 22: Professional use

PC 35 : Washing and Cleaning Products (including solvent based products)

PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

ERC 8a: Wide dispersive indoor use of processing aids in open systems.


## APPENDIX: EXPOSURE SCENARIOS N.2

**PHASE: USE AT BRUSH OR SPONGE WITH PROFESSIONAL PRODUCT (ref AISE GEIS.10.1.b.v1)****Treatment at brush or sponge with concentrated product; it can follow brushing with dry cloth or water (ex.detergent, desincrusting, dewaxing, ..)**

## OPERATIVE CONDITIONS

Maximum duration	220 minutes/days
Conditions of process	Process takes place at room temperature. In case of dilution, use tap water at a maximum temperature of 45 ° C. No local ventilation required (LEV); general good ventilation is sufficient at the workplace

## RISK MANAGEMENT MEASURES

Conditions and measures in relation to personal protective equipment (PPE), hygiene and health evaluation	Use gloves, safety goggles, closed work clothes, safety shoes. See Section 8 of this product's SDS for specifications.  Ensure adequate staff training in relation to correct use and maintenance of PPE
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## ADVICE OF GOOD PRACTICE

Do not eat or drink, do not smoke or use open flames	
Wash hands after use. Avoid contact with injured skin Do not mix with other products	
Instructions for spillage	Dilute with water and collect.
Additional advices	Follows the instructions on the label, technical sheet and safety data sheet at section 7.

ENVIRONMENTAL MEASURES: Do not allow undiluted product to reach surface water.

## PROPERTIES OF THE COMPOSITION OF THE PRODUCT

The Classification of the concentrated product is on the label and in section 2. of the SDS
The classification of the product is based on that of the ingredients. The list of ingredients that contributes to the classification of the product is in the section 3 of the SDS.
The relevant limit values of the ingredients on which the exposure assessment is based are reported in section 8 of the SDS
The product may contain sensitizing components that may cause in some subjects an allergic reaction. The section 2 of the SDS reports these sensitizers if applicable to the product.



**DESCRIPTORS OF USE**

SU 3: Industrial use
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PC 35 : Washing and Cleaning Products (including solvent based products)
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PROC 10: Roller application or brushing
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ERC 8a: Wide dispersive indoor use of processing aids in open systems.
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