

**SECTION 1. Identification of the substance/mixture and of the company/enterprise****1.1. Product identifier**

Product name : STARCLEAN FX  
Product code: refer to sales department

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

FX and BX oven cleaners

Sectors of use:

Industrial Manufacturing[SU3], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Product category:

Washing and Cleaning Products (including solvent based products)

Process categories:

Use in batch and other process (syn- thesis) where opportunity for exposure arises[PROC4], Transfer of substance or mixture (charging and discharging) at nondedicated facilities[PROC8A], Transfer of substance or mixture (charging and discharging) at dedicated facilities[PROC8B]

Not recommended uses

Do not use for purposes other than those listed

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

Distributore esclusivo/Exclusive supplier:

ANGELO PO Grandi Cucine

41012 Carpi (Italy) S/S Romana Sud, 90

Tel. +39.059.639411 - Fax +39.059.642499

e-mail: angelopo@angelopo.it http: www.angelopo.it

**1.4. Emergency telephone number**

Centralino/Switchboard +39.030.2307.1 - (h 8.30-12.00 13.30-18.00 GMT+1; Lingua/Language: Italiano, English)

**SECTION 2. Hazards identification****2.1. Classification of the substance or mixture**

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

Pictograms:

GHS05

Hazard Class and Category Code(s):

Met. Corr. 1, Skin Corr. 1, Eye Dam. 1

Hazard statement Code(s):

H290 - May be corrosive to metals.

H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.

The product can be corrosive to metals

Corrosive product: causes severe skin burns and eye damage.

If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

**2.2. Label elements**

Labelling according to Regulation (EC) No 1272/2008:



Pictogram, Signal Word Code(s):  
GHS05 - Danger

Hazard statement Code(s):  
H290 - May be corrosive to metals.  
H314 - Causes severe skin burns and eye damage.

Supplemental Hazard statement Code(s):  
not applicable

Precautionary statements:

Prevention  
P260 - Do not breathe vapours/spray.  
P280 - Wear protective gloves/clothing and eye/face protection.

Response

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.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Contains:  
Sodium hydroxide

Contains (Reg.EC 648/2004):  
< 5% non-ionic surfactants, phosphonates, polycarboxylates

**2.3. Other hazards**

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

Do not ingest. Keep out of reach of children.

**SECTION 3. Composition/information on ingredients**

**3.1 Substances**

Irrilevant

**3.2 Mixtures**

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
Sodium hydroxide	>= 25 < 50%	Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318 Limits: Skin Corr. 1A, H314 %C >=5; Skin Corr. 1B, H314 2<=	011-002-00-6	1310-73-2	215-185-5	01-2119457 892-27-XXX X

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
		%C <5; Eye Irrit. 2, H319 0,5<= %C <2; Eye Dam. 1, H318 %C >=2; Skin Irrit. 2, H315 %C >=0,5;				
Tetrasodium (1-hydroxyethylidene)bisphosphate	>= 2,5 < 3%	Acute Tox. 4, H302; Eye Irrit. 2, H319		3794-83-0	223-267-7	ionic mixture

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

In case of skin contact: immediately take off contaminated clothing. In case of contact with the skin, wash immediately with plenty of water and soap and in case of redness or burns consult a doctor immediately and / or go to the emergency room. In case of contact with the eyes: in case of contact with the eyes, rinse them with water for an adequate time and keeping the eyelids open, then immediately consult an ophthalmologist. Protect the uninjured eye. In case of ingestion: DO NOT induce vomiting. In case of inhalation: take the injured person to fresh air and keep him warm and at rest.

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

Prolonged inhalation can cause a burning sensation, cough, headache, difficulty breathing, nausea and throat pain. Contact with skin produces chemical burns in the skin, with local discomfort or pain, severe redness and swelling, tissue destruction, cracking and ulceration. Contact with eyes can cause redness, pain, severe deep burns and loss of vision. Ingestion can cause severe burns to the lips, mouth, throat and esophagus, with stomach upset and abdominal pain.

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

Symptomatic treatment

## SECTION 5. Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: must be evaluated based on the surrounding environment. In the event of a large fire, all extinguishing agents are permitted.  
Extinguishing media which must not be used for safety reasons: none in particular.

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

Do not inhale the gases produced by the explosion and combustion.

**5.3. Advice for firefighters**

Use suitable respiratory equipment.

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1 For non-emergency personnel:

Move away from the area surrounding the spill or release. Not smoking. Wear a mask, gloves and protective clothing.

6.1.2 For emergency responders:

Eliminate all open flames and possible sources of ignition. Not smoking. Provide adequate ventilation. Evacuate the danger area and, if necessary, consult an expert.

**6.2. Environmental precautions**

Contain spills with earth or sand.

If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.

Dispose of the waste material in compliance with the regulations

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

6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS)  
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material or suck it.  
Prevent it from entering the sewer system.

6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

Wash with plenty of water.

**6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information

**SECTION 7. Handling and storage****7.1. Precautions for safe handling**

Avoid contact and inhalation of vapors

Wear protective gloves/clothing and eye/face protection.

Handle the product after consulting all other sections of this safety data sheet.

At work do not eat or drink.

See also paragraph 8 below.

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

Keep in original container closed tightly. Do not store in open or unlabelled containers.

Keep containers upright and safe by avoiding the possibility of falls or collisions.

Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

### 7.3. Specific end use(s)

Industrial Manufacturing:

Handle with extreme caution. Store in a well-ventilated place, away from heat sources, in the original well-closed containers

Public domain (administration, education, entertainment, services, craftsmen):

Handle with extreme caution. Store in a well-ventilated place, away from heat sources, in the original well-closed containers

See the annex exposure scenario.

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

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Related to contained substances:

Sodium hydroxide:

Limit value – Eight hours

(ppm)/(mg/m<sup>3</sup>)

Austria: x/2 inhalable aerosol

Belgium: x/2 (1)

Denmark: x/2

France: x/2

Hungary: x/2

Japan (JSOH): x/2(1)

Latvia: x/0,5

Poland: x/0,5

Romania: x/1

Spain: x/2

Sweden: x/1 (1)

Switzerland: x/2 inhalable aerosol (MAK)

USA – OSHA: x/2

Limit Value – Short Term

(ppm)/(mg/m<sup>3</sup>)

Australia: x/2(1)

Austria: x/4 inhalable aerosol

Canada - Ontario: x/2(1)

Canada – Québec: x/2(1)

Denmark: x/2

Finland: x/2(1)

Hungary: x/2

Ireland: x/2(1)

New Zealand: x/2(1)

People's Republic of China: x/2(1)

Poland: x/1

Romania: x/3(1)

Singapore: x/2

South Korea: x/2(1)

Sweden: x/2(1)(2)

Switzerland: x/2 inhalable aerosol (MAK)

USA – NIOSH: x/2(1)

United Kingdom: x/2

Remarks:

Australia: (1) Ceiling limit value

Canada – Ontario: (1) Ceiling limit value

Canada – Québec: (1) Ceiling limit value  
Finland: (1) Ceiling limit value  
Ireland: (1) 15 minutes reference period  
Japan: (1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day  
New Zealand: (1) Ceiling limit value  
People's Republic of China: (1) Ceiling limit value  
South Korea: (1) Ceiling limit value  
Romania: (1) 15 minutes average value  
Sweden: (1) Inhalable dust (2) Ceiling limit value  
USA – NIOSH: (1) Ceiling limit value (15 min)  
Argentine: CMP-C: 2 mg/m<sup>3</sup>  
Czech Republic: PEL 1 mg/m<sup>3</sup>/ NPK-P 2 mg/m<sup>3</sup>  
Italy: OEL: ACGIH -STEL: C 2.0 mg/m<sup>3</sup>; Tipo OEL: ACGIH - STEL: C2 mg/m<sup>3</sup> - Note: URT, eye, and skin irr  
Estonia: short-term exposure limit (maximum chemical substance average allowable concentration in inhaled air - 15 minutes) 2 mg/m<sup>3</sup>(Ceiling limit" means a maximum permissible continuous concentration of 15 minutes in the air for rapidly acting substances)  
Norway: ceiling value (a moment value that indicates the maximum concentration of a chemical in the breathing zone that should not be exceeded) 2 mg/m<sup>3</sup>  
Lithuania: NRD 2 mg/m<sup>3</sup>  
Slovakia: NPEL 2 mg/m<sup>3</sup>  
South Africa: Short Term OEL-CL 2 mg/m<sup>3</sup>

- Substance: Sodium hydroxide

DNEL

Systemic effects Short term Workers inhalation = 1 (mg/m<sup>3</sup>)

Systemic effects Short term Consumers inhalation = 1 (mg/m<sup>3</sup>)

Local effects Short term Workers inhalation = 1 (mg/m<sup>3</sup>)

Local effects Short term Consumers inhalation = 1 (mg/m<sup>3</sup>)

- Substance: Tetrasodium (1-hydroxyethylidene)bisphosphonate

DNEL

Systemic effects Long term Workers inhalation = 16,9 (mg/m<sup>3</sup>)

Systemic effects Long term Workers dermal = 48 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 4,2 (mg/m<sup>3</sup>)

Systemic effects Long term Consumers dermal = 24 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 2,4 (mg/kg bw/day)

Local effects Long term Workers inhalation = 10 (mg/m<sup>3</sup>)

Local effects Long term Consumers inhalation = 10 (mg/m<sup>3</sup>)

PNEC

Sweet water = 0,096 (mg/l)

sediment Sweet water = 193 (mg/kg/sediment)

Sea water = 0,01 (mg/l)

sediment Sea water = 19,3 (mg/kg/sediment)

STP = 58 (mg/l)

ground = 14 (mg/kg ground)

## 8.2. Exposure controls

Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

**8.2.2 Individual protection measures:**

## (a) Eye / face protection

Wear protective goggles (EN 166).

## (b) Skin protection

## (i) Hand protection

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

## (ii) Other

During working operation wear protective clothing (generic workwear / antacid, safety shoes or other protective equipment) according to the instructions of the employer

## (c) Respiratory protection

Not needed for normal use.

During manual operations, in the event of insufficient ventilation and/or employer's instructions and/or environmental hygiene investigations, use a mask with universal filters type ABEK (UNI EN 405). None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements (89/656/EEC, 245/2016 UE), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

## (d) Thermal hazards

No hazard to report

**Environmental exposure controls:**

Use according to good working practices and avoid to disperse the product into the environment.

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

Physical and chemical properties	Value	Determination method
Physical state	Clear liquid	
Colour	amber	
Odour	not determined as considered not relevant for the characterization of the product	
Odour threshold	not determined as considered not relevant for the characterization of the product	
Melting point/freezing point	not determined as considered not relevant for the characterization of the product	
Boiling point or initial boiling point and boiling range	not determined as considered not relevant for the characterization of the product	
Flammability	not determined as considered not relevant for the characterization of the product	
Lower and upper explosion limit	not determined as considered not relevant for the characterization of the product	
Flash point	not determined as considered not relevant for the characterization of the product	
Auto-ignition temperature	not determined as considered not relevant for the characterization of the product	

Physical and chemical properties	Value	Determination method
Decomposition temperature	not determined as considered not relevant for the characterization of the product	
pH	12,5 ± 0,5 (20°C; sol. 1%)	
Kinematic viscosity	not determined as considered not relevant for the characterization of the product	
Solubility	in water	
Water solubility	miscible in all proportions	
Partition coefficient n-octanol/water (log value)	not determined as considered not relevant for the characterization of the product	
Vapour pressure	not determined as considered not relevant for the characterization of the product	
Density and/or relative density	1,27 - 1,29 g / ml (20°C)	
Relative vapour density	not determined as considered not relevant for the characterization of the product	
Particle characteristics	not determined as considered not relevant for the characterization of the product	

## 9.2. Other information

### 9.2.1 Information with regard to physical hazard classes

No data available.

### 9.2.2 Other safety characteristics

No data available.

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

Base. It can be corrosive to metals.

### 10.2. Chemical stability

Stable under recommended storage and handling conditions

### 10.3. Possibility of hazardous reactions

Possible dangerous reaction with acids.

### 10.4. Conditions to avoid

Avoid prolonged contact with air and as provided in 10.3

### 10.5. Incompatible materials

Acids

### 10.6. Hazardous decomposition products

Thermally stable product. In the event of a fire, dangerous oxides may be formed

## SECTION 11. Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

ATE(mix) oral = 19.685,0 mg/kg

(a) acute toxicity: Sodium hydroxide: Ingestion - LD50 rat (mg / kg / 24h bw): nd

Skin contact - LC50 rabbit (mg / kg / 24h bw): 1350

Inhalation - LD50 rat (mg / l / 4h): nd

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Ingestion - LD50 rat (mg / kg / 24h bw):> 2850

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw):> 5000

Inhalation - LD50 rat (mg / l / 4h): nd

(b) skin corrosion/irritation: Corrosive product: causes severe skin burns and eye damage.

Sodium hydroxide: Corrosive

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Not corrosive

Sodium hydroxide: Irritating

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Not irritating

(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

Sodium hydroxide: Corrosive

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Not corrosive

Sodium hydroxide: Irritating

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Irritating

(d) respiratory or skin sensitisation: Sodium hydroxide: Not sensitizing

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Not sensitizing

(e) germ cell mutagenicity: Sodium hydroxide: NaOH did not induce mutagenicity in in vitro and in vivo studies (EU RAR, 2007; section 4.1.2.7, page 73).

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Not mutagenic

(f) carcinogenicity: Sodium hydroxide: Systemic carcinogenicity is not expected to occur as NaOH is not expected to be systemically available in the body under normal conditions of handling and use. Finally, adequate studies are not available to assess the risk on local carcinogenic effects.

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Not carcinogenic

(g) reproductive toxicity: Sodium hydroxide: NaOH is not expected to be systemically available in the body under normal conditions of handling and use and for this reason it can be said that the substance will neither reach the fetus nor reach the male and female reproductive organs (EU RAR Sodium Hydroxide (2007), section 4.1.2.8, page 73). It can be concluded that a specific study is not required to determine reproductive toxicity.

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Non toxic

(h) specific target organ toxicity (STOT) single exposure: Sodium hydroxide: The substance can be absorbed into the body by inhalation of its aerosol, by ingestion and by contact with the skin causing corrosion

Tetrasodium (1-hydroxyethylidene)bisphosphonate: Non toxic

(i) specific target organ toxicity (STOT) repeated exposure: Sodium hydroxide: The introductory sections of Annexes

VII-X indicate a specific adaptation to standard information requirements as in vivo testing should be avoided with corrosive substances at concentration / dose levels causing corrosivity. However, NaOH is not expected to be systemically available in the body under normal conditions of handling and use and therefore no systemic effects of NaOH are expected after repeated exposure (EU RAR sodium hydroxide (2007); section 4.1.3.1.4, page 76 ).

Tetrasodium (1-hydroxyethylidene)bisphosphonate: NOAEL 41 mg / kg bw / day (subchronic, rat). Non toxic  
 (j) aspiration hazard: Sodium hydroxide: Not available  
 Tetrasodium (1-hydroxyethylidene)bisphosphonate: Not available

**11.2. Information on other hazards**

No data available.

**SECTION 12. Ecological information**

**12.1. Toxicity**

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Related to contained substances:

Sodium hydroxide:

- Acute toxicity - fish LC50 (mg / l / 96h): 45
- Acute toxicity - crustaceans EC50 (mg / l / 48h): 40
- Acute toxicity to algae ErC50 (mg / l / 72-96h): n.d
- Chronic toxicity - fish NOEC (mg / l): n.d
- Chronic toxicity - crustaceans NOEC (mg / l): n.d
- Chronic toxicity to algae NOEC (mg / l): n.d

Available data indicate that NaOH concentrations of approximately 20 to 40 mg / L may be acutely toxic to fish and invertebrates (single species test). There is a lack of data on the increase in pH due to the addition of these quantities of NaOH in the test waters used. In waters with relatively low buffering capacity, NaOH concentrations of 20-40 mg / L may lead to an increase in pH with one or more pH units (EU RAR, 2007; section 3.2.1.1.3, page 30).

The OECD SIDS (2002) assigned a low reliability code ("invalid" or "not assignable") to all available tests, since in general the tests were not conducted according to current guidelines (EU RAR, 2007 ; section 3.2. 1.1.4, page 30). Furthermore, in many test reports there were no data on pH, buffer capacity and / or composition of the test medium, although this is essential information for NaOH toxicity testing. This is the most important reason why most of the tests were considered "invalid". Despite this lack of valid data, it is not necessary to perform further aquatic toxicity tests with NaOH, as all available tests have resulted in a rather small range of toxicity values (acute toxicity test: 20 to 450 mg / L; test chronic toxicity:> or = 25 mg / L) and there are sufficient data on the pH ranges tolerated by the main taxonomic groups.

Furthermore, a generic PNEC cannot be derived from the single species toxicity data for NaOH, as the pH of natural waters and the buffering capacity of natural waters show considerable differences and aquatic organisms / ecosystems are adapted to these specific natural conditions, with resulting in different pH optima and tolerated pH ranges (EU RAR, 2007; section 3.2.1.1.4, page 30). According to the OECD SIDS (2002), a lot of information is available on the relationship between pH and ecosystem structure, and natural changes in the pH of aquatic ecosystems have also been quantified and widely reported in ecological publications and manuals.

- Tetrasodium (1-hydroxyethylidene)bisphosphonate:
- Acute toxicity - fish LC50 (mg / l / 96h): 278
  - Acute toxicity - crustaceans EC50 (mg / l / 48h): 754
  - Acute toxicity algae ErC50 (mg / l / 72-96h): na
  - Chronic toxicity - fish NOEC (mg / l): nd
  - Chronic toxicity - crustaceans NOEC (mg / l): 9.63
  - Chronic toxicity algae NOEC (mg / l): nd

Microorganism toxicity: EC10 / NOEC 286 mg / L

Use according to good working practices and avoid to disperse the product into the environment.

**12.2. Persistence and degradability**

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Related to contained substances:

Sodium hydroxide:

according to REACH regulation, it is not necessary to conduct the study if the substance is inorganic (Annex VII, adaptation column 2).

Tetrasodium (1-hydroxyethylidene)bisphosphonate:

Half-life in fresh water 10 d (12 ° C)

**12.3. Bioaccumulative potential**

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Related to contained substances:

Sodium hydroxide:

According to REACH, it is not necessary to conduct the study if the substance has a low bioaccumulation potential (Annex IX, adaptation column 2). Considering its high water solubility, NaOH should not bioconcentrate in organisms. Log Pow is not applicable for an inorganic compound that dissociates (EU RAR 2007, section 3.1.1 page 19 and section 3.1.3.4, page 26). Furthermore, sodium is an element present in nature prevalent in the environment and to which organisms are regularly exposed, for which they have a certain ability to regulate the concentration of the organism.

Tetrasodium (1-hydroxyethylidene)bisphosphonate:

Koc at 20 ° C 40 000

**12.4. Mobility in soil**

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Related to contained substances:

Sodium hydroxide:

According to the REACH regulation, it is not necessary to conduct an adsorption / desorption study if, based on the physicochemical properties, the substance can be expected to have a low adsorption potential (Annex VIII, adaptation column 2).

Considering its high water solubility, NaOH should not bioconcentrate in organisms. The high water solubility and low vapor pressure indicate that NaOH will be found primarily in the aquatic environment.

The 73% aqueous NaOH solution at room temperature is a highly viscous gelatinous material and without additional dilution (precipitation), it is not expected to infiltrate the soil to any significant extent. The 50% aqueous NaOH solution is liquid and is expected to infiltrate the soil to a measurable extent. As a dilution of NaOH increases, increases its speed of movement through the ground. During movement through the ground, some ion exchange will occur.

Also, part of the hydroxide can remain in the aqueous phase and will move down through the soil in the direction of groundwater flow (EU RAR 2007, section 3.1.3, page 24).

Tetrasodium (1-hydroxyethylidene)bisphosphonate:

Log Kow (Log Pow) -3 (23 ° C)

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

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

**12.6. Endocrine disrupting properties**

No data available.

**12.7. Other adverse effects**

No adverse effects

Regulation (EC) No 2006/907 - 2004/648

The (l) surfactant (s) content (s) in this preparation complies (comply) with (i) the biodegradability criteria as laid down in Regulation CE/648/2004 on detergents. All data are held at the disposal of the competent authorities of Member States and will be provided, at their direct request or at the request of a detergent manufacturer, to those authorities.

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

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.

Recover if possible. Operate according to local or national regulations

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

ADR/RID/IMDG/ICAO-IATA: 3266

If subject to the following characteristics is ADR exempt:

Combination packagings: per inner packaging 1 L per package 30 Kg

Inner packaging placed in shrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg

**14.2. UN proper shipping name**

ADR/RID/IMDG: LIQUIDO INORGANICO CORROSIVO, BASICO, N.A.S. (Idrossido di sodio in mixture)

ADR/RID/IMDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide in mixture)

ICAO-IATA: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide in mixture)

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

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

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

ADR: Tunnel restriction code : E

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

IMDG - EmS : F-A, S-B

**14.4. Packing group**

ADR/RID/IMDG/ICAO-IATA: II

**14.5. Environmental hazards**

ADR/RID/ICAO-IATA: Product is not environmentally hazardous

IMDG: Marine polluting agent : No

**14.6. Special precautions for user**

The transport must be carried out by authorized vehicles for the transport of dangerous goods in accordance with the requirements of the applicable Edition of the agreement A.D.R. and national provisions. The transport must be carried

out in the original packaging and in packages that are made from materials resistant to content and not likely to generate with this dangerous reactions. The process of loading and unloading of dangerous goods have received adequate training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

#### 14.7. Maritime transport in bulk according to IMO instruments

Transport in bulk is not foreseen

### SECTION 15. Regulatory information

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

Restrictions relating to the product or contained substances (All. XVII Reg. EC 1907/2006): not applicable  
Substances in Candidate List (art. 59 Reg. EC 1907/2006): the product does not contain SVHC in a proportion  $\geq 0.1\%$ .  
Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC in a proportion  $\geq 0.1\%$ .

Reg. EC 648/04: see 2.2

Reg. (EU) n. 1169/2011: see 2.2

Reg (UE) 528/2012: see.to 2.2

REGULATION (EU) No 1357/2014 - waste:  
HP8 - Corrosive

#### 15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

### SECTION 16. Other information

#### 16.1. Other information

Points modified compared to previous release: 7.1. Precautions for safe handling, 7.3. Specific end use(s), 8.1. Control parameters, 8.2. Exposure controls, 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 12.1. Toxicity, 12.2. Persistence and degradability, 12.3. Bioaccumulative potential, 12.4. Mobility in soil, 12.5. Results of PBT and vPvB assessment, 12.6. Endocrine disrupting properties, 14.2. UN proper shipping name, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Description of hazard statements set out in paragraph 3

H290 = May be corrosive to metals.

H314 = Causes severe skin burns and eye damage.

H318 = Causes serious eye damage.

H302 = Harmful if swallowed.

H319 = Causes serious eye irritation.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008

- H290 - May be corrosive to metals. Classification procedure: On basis of test data  
H314 - Causes severe skin burns and eye damage. Classification procedure: Calculation method  
H318 - Causes serious eye damage. Classification procedure: Calculation method

**Main normative references:**

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.  
Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.  
Regulation (EC) n. 648 of 31/03/04 (on detergents) et seq.  
Regulation (UE) n. 1169/2011 (on the provision of food information to consumers)  
Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.  
Regulation (UE) 528/2012 (Biocides) et seq.

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable

n.d.: not available

ADR: Accord européen relative au transport International des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimati

BFC: BioconCentration Factor

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50

COD: Chemical Oxygen Demand

DNEL: Derived No Effect Level

EC50: half maximal Effective Concentration

ERC: Environment Release Classes

EU/UE: European Union

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods code

Kow: Octanol water partition coefficient

NOEC: No Observed Effect Concentration

OEL: Occupational Exposure Limit

PBT: Persistent Bioaccumulative and Toxic

PC: Product Categories

PNEC: Predicted No Effect Concentration

PROC: Process Categories

RID: Règlement concernant le transport International ferroviaire des marchandises dangereuses (Regulations concerning International rail transport of dangerous goods)

STOT: Target Organ Systemic Toxicity

STOT (RE): Repeated Exposure

STOT (SE): Single Exposure

STP: Sewage Treatment Plants

SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very Persistent Very Bioaccumulative

**References and Sources:**

- ECHA Registered Substances:
- <https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

- SDS supplier
- GESTIS DNEL Database: <http://www.dguv.de/ifa/gestis/gestis-dnel-datenbank/index-2.jsp>
- GESTIS International Limit Value: <http://limitvalue.ifa.dguv.de>

This msds was made in good faith by technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

\*\*\* this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: updating to reg.878/2020

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**SUMI****Safe Use of Mixtures Information****AISE\_SUMI\_IS\_4\_2**

Version 1.1, August 2018

***Industrial uses; Automated task; Semi-automated task; Dedicated equipment***

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.*

**General description of the process covered**

The SUMI applies to industrial uses where products are used in closed process where opportunity for exposure arises. This Safe Use Information is based on the **AISE\_SWED\_IS\_4\_2**.

**Operational Conditions**

<b>Maximum duration</b>	480 minutes per day.
<b>Range of application / Process conditions</b>	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
<b>Air exchange rate</b>	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

**Risk Management Measures**

<b>Measures related to personal protective equipment (PPE), hygiene and health evaluation</b>	Wear suitable gloves. See section 8 of the SDS of this product for specifications. 
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
<b>Environmental measures</b>	Prevent that undiluted product reaches surface waters. <b>If appropriate AISE SPERC 8a.1.a.v2 may apply:</b> wide dispersive use resulting in release to municipal sewage treatment plant.

**Additional good practice advice**

<p><b>Don't eat or drink.</b>  <b>Don't smoke.</b>  <b>Don't use in proximity of open flame.</b></p>	
<p><b>Wash hands after use.</b>  <b>Avoid contact with damaged skin.</b>  <b>Do not mix with other products.</b></p>	
<p><b>Spillage instructions</b></p>	<p>Dilute with fresh water and mop up.</p>
<p><b>Hygiene practices</b></p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

**Additional information depending on product composition**

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

**Disclaimer**

*This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.*

*If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.*

*Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.*

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**SUMI**

**Safe Use of Mixtures Information**



**AISE\_SUMI\_IS\_8b\_1**

*Version 1.1, August 2018*

***Transfer and dilution of concentrated product by using dedicated dosing system***

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.*

**General description of the process covered**

This SUMI applies to industrial uses where products are transferred to or diluted in a dedicated dosing system. This Safe Use Information is based on the **AISE\_SWED\_IS\_8b\_1\_L** and **AISE\_SWED\_IS\_8b\_1\_S**

**Operational Conditions**

<b>Maximum duration</b>	60 minutes per day.
<b>Range of application / Process conditions</b>	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
<b>Air exchange rate</b>	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

**Risk Management Measures**

<b>Measures related to personal protective equipment (PPE), hygiene and health evaluation</b>	Wear suitable gloves. See section 8 of the SDS of this product for specifications.
	 Training of workers in relation to proper use and maintenance of PPEs must be ensured.
<b>Environmental measures</b>	Prevent that undiluted product reaches surface waters.
	<b>If appropriate AISE SPERC 8a.1.a.v2 may apply:</b> wide dispersive use resulting in release to municipal sewage treatment plant.

**Additional good practice advice**

<p><b>Don't eat or drink.</b>  <b>Don't smoke.</b>  <b>Don't use in proximity of open flame.</b></p>	
<p><b>Wash hands after use.</b>  <b>Avoid contact with damaged skin.</b>  <b>Do not mix with other products.</b></p>	
<p><b>Spillage instructions</b></p>	<p>Dilute with fresh water and mop up.</p>
<p><b>Hygiene practices</b></p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

**Additional information depending on product composition**

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

**Disclaimer**

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*Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.*

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**SUMI**

**Safe Use of Mixtures Information**



**AISE\_SUMI\_PW\_4\_1**

*Version 1.1, August 2018*

***Professional uses; Semi-closed system***

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.*

**General description of the process covered**

The SUMI applies to professional uses where products are used in closed process where opportunity for exposure arises. This Safe Use Information is based on the **AISE\_SWED\_PW\_4\_1**.

**Operational Conditions**

<b>Maximum duration</b>	480 minutes per day.
<b>Range of application / Process conditions</b>	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
<b>Air exchange rate</b>	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

**Risk Management Measures**

<b>Measures related to personal protective equipment (PPE), hygiene and health evaluation</b>	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
<b>Environmental measures</b>	Prevent that undiluted product reaches surface waters.
	<b>If appropriate AISE SPERC 8a.1.a.v2 may apply:</b> wide dispersive use resulting in release to municipal sewage treatment plant.

**Additional good practice advice**

<p><b>Don't eat or drink.</b>  <b>Don't smoke.</b>  <b>Don't use in proximity of open flame.</b></p>	
<p><b>Wash hands after use.</b>  <b>Avoid contact with damaged skin.</b>  <b>Do not mix with other products.</b></p>	
<p><b>Spillage instructions</b></p>	<p>Dilute with fresh water and mop up.</p>
<p><b>Hygiene practices</b></p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

**Additional information depending on product composition**

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

**Disclaimer**

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**SUMI**

**Safe Use of Mixtures Information**



**AISE\_SUMI\_PW\_8a\_1\_G**

*Version 1.1, August 2018*

***Transfer of product to a container (bottle/bucket/machine)***

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.*

**General description of the process covered**

This SUMI applies to professional uses where the product is transferred to or diluted in a container, such as a dispenser, bottle or bucket. Safe Use Information is based on the **AISE\_SWED\_PW\_8a\_1\_L** and **AISE\_SWED\_PW\_8a\_1\_S**.

**Operational Conditions**

<b>Maximum duration</b>	60 minutes per day.
<b>Range of application / Process conditions</b>	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
<b>Air exchange rate</b>	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

**Risk Management Measures**

<b>Measures related to personal protective equipment (PPE), hygiene and health evaluation</b>	Wear suitable gloves and eye protection. See section 8 of the SDS of this product for specifications.
	  Training of workers in relation to proper use and maintenance of PPEs must be ensured.
<b>Environmental measures</b>	Prevent that undiluted product reaches surface waters.
	<b>If appropriate AISE SPERC 8a.1.a.v2 may apply:</b> wide dispersive use resulting in release to municipal sewage treatment plant.

**Additional good practice advice**

<p><b>Don't eat or drink.</b>  <b>Don't smoke.</b>  <b>Don't use in proximity of open flame.</b></p>	
<p><b>Wash hands after use.</b>  <b>Avoid contact with damaged skin.</b>  <b>Do not mix with other products.</b></p>	
<p><b>Spillage instructions</b></p>	<p>Dilute with fresh water and mop up.</p>
<p><b>Hygiene practices</b></p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

**Additional information depending on product composition**

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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