

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : Acide chlorhydrique 23% - Esprit de sel 23% / Zoutzuur salzsäure 23%

Product code : 0601014F.

UFI : 5800-A0Y6-8007-501J

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

Descaler, cleaner, pH regulator.

1.3. Details of the supplier of the safety data sheet

Registered company name : FOREVER PRODUCTS N.V..

Address : 122 rue de la Glacerie.6180.COURCELLES.Belgique.

Telephone : 071/46.85.15. Fax : 071/46.85.69.

Contactpersoon, personne à cont.: Christelle Hulin

1.4. Emergency telephone number : 070 245 245.

Association/Organisation : Antigifcentrum België, centre anti-poison.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Substance that is corrosive to metals, Category 1 (Met. Corr. 1, H290).

Skin corrosion, Category 1 (Skin Corr. 1, H314).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H335).

This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

Detergent mixture (see section 15).

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS05



GHS07

Signal Word :

DANGER

Product identifiers :

017-002-01-X

HYDROCHLORIC ACID

Hazard statements :

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

H335

May cause respiratory irritation.

Precautionary statements - General :

P101

If medical advice is needed, have product container or label at hand.

P102

Keep out of reach of children.

Precautionary statements - Prevention :

P260

Do not breathe vapours.

P271

Use only outdoors or in a well-ventilated area.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - 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].

P304 + P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor/...

Precautionary statements - Storage :

P405 Store locked up.

Precautionary statements - Disposal :

P501 Dispose of contents/container in compliance with regulations.

2.3. Other hazards

The substance does not fulfil the PBT or vPvP criteria in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 7732-18-5 EC: 231-791-2 EAU DEMINERALISEE			50 <= x % < 100
INDEX: 017-002-01-X EC: 231-595-7 REACH: 01-2119484862-27 HYDROCHLORIC ACID	GHS05, GHS07 Dgr Skin Corr. 1B, H314 STOT SE 3, H335	B	10 <= x % < 25

Specific concentration limits:

Identification	Specific concentration limits	ATE
INDEX: 017-002-01-X EC: 231-595-7 REACH: 01-2119484862-27 HYDROCHLORIC ACID	Skin Corr. 1B: H314 C>= 25% Skin Irrit. 2: H315 10% <= C < 25% Eye Dam. 1: H318 C>= 25% Eye Irrit. 2: H319 10% <= C < 25% STOT SE 3: H335 C>= 10%	

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

Never give anything by mouth to an unconscious person.

4.1. description of first aid measures

In the event of exposure by inhalation :

To immediately move away the person from the polluted atmosphere and to call a doctor.

In the event of splashes or contact with eyes :

Wash with plenty of clean, fresh water for several minutes.

If irritation persists, consult a Ophthalmology.

In the event of splashes or contact with skin :

Remove soaked clothing and wash skin thoroughly with water.

If irritation appears or if the contamination is extensive and prolonged, consult a doctor.

In the event of swallowing :

Do not induce vomiting.

Rinse mouth with water.

Consult a doctor showing the product label.

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

Irritating to respiratory tracts.

Causes severe skin burns and eye damage.

After ingestion: attack and lesions of the gastrointestinal tract.

Possible symptoms: stomach pain, nausea, diarrhea, cough, bloody vomiting, shortness of breath.

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

needed immediate medical attention.

To treat in a symptomatic way.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Use extinguishing measures appropriate to local circumstances and the surrounding environment.

Suitable methods of extinction

Cool containers exposed to fire by spraying water.

5.2. Special hazards arising from the substance or mixture

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

Reacts violently with water.

Liberates hydrogen in the presence of metals.

5.3. Advice for firefighters

Wear self contained breathing apparatus.

Cool containers / holding tank with water spray.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

For small spills, dilute and clean the area with water.

For large spills, neutralize with lime or sodium carbonate, and then clean the area with water.

6.4. Reference to other sections

See paragraphs 8 and 13 for more information.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the substance is handled.

7.1. Precautions for safe handling

Use in well ventilated areas.

In the event of dilution, to add the product in water and NEVER the reverse.

Recommended equipment and procedures :

For personal protection, see section 8.

7.2. Conditions for safe storage, including any incompatibilities

Keep container closed in a dry and well ventilated.

Storage

Keep only in the original container.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

HYDROCHLORIC ACID ...%

Final use:

Exposure method:

Potential health effects:

DNEL :

Exposure method:

Potential health effects:

DNEL :

Workers.

Inhalation.

Long term local effects.

8 mg of substance/m³

Inhalation.

Short term local effects.

15 mg of substance/m³

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Inhalation.
Long term local effects.
8 mg of substance/m3

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term local effects.
15 mg of substance/m3

Predicted no effect concentration (PNEC):

HYDROCHLORIC ACID ...%

Environmental compartment:

PNEC :

Fresh water.

0.036 mg/l

Environmental compartment:

PNEC :

Sea water.

0.036 mg/l

Environmental compartment:

PNEC :

Intermittent waste water.

0.045 mg/l

Environmental compartment:

PNEC :

Waste water treatment plant.

0.036 mg/l

8.2. Exposure controls**Personal protection measures, such as personal protective equipment**

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

**- Eye / face protection**

Before handling, it is necessary to wear protective glasses Side accordance with standard EN166.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- Neoprene® (Polychloroprene)
- Butyl Rubber (Isobutylene-isoprene copolymer)
- PVC (polyvinyl chloride)
- fluorinated rubber

Penetration time > 480 min

Thickness of gloves Polychloroprene, Butyl rubber, PVC: 0.5 mm.

Gloves thickness Nitrile rubber: 0.35 mm,

Fluorocarbon rubber gloves thickness: 0.4 mm.

- Body protection

Wear suitable protective clothing

- Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators (with filter cartridges E).

Respiratory system with combined vapor / particulate filter (EN141).

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties****Physical state**

Physical state :	Fluid liquid.
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Colour

Color:	colorless with slightly yellow
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Odour

Odour threshold :	Not stated.
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Melting point

Melting point/melting range :	-55°C à 25%
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Freezing point

Freezing point / Freezing range :	Not stated.
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Boiling point or initial boiling point and boiling range

Boiling point/boiling range :	99°C à 25%
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Flammability

Flammability (solid, gas) :	Not stated.
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Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) :	Not stated.
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Explosive properties, upper explosivity limit (%) :	Not stated.
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Flash point

Flash point interval :	Not relevant.
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Auto-ignition temperature

Self-ignition temperature :	Not specified.
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Decomposition temperature

Decomposition point/decomposition range :	Not specified.
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pH

pH :	Not stated.
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Strongly acidic.

pH (aqueous solution) :	< 1.0
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Kinematic viscosity

Viscosity :	Not stated.
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Solubility

Water solubility :	Soluble.
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Fat solubility :	Not stated.
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Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water :	Not stated.
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Vapour pressure

Vapour pressure (50°C) :	Below 110 kPa (1.10 bar).
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Density and/or relative density

Density :	1.113 +/- 0.010
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Relative vapour density

Vapour density :	Not stated.
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9.2. Other information

No data available.

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

In the case of dilution, put acid in water, never the opposite.

10.1. Reactivity

Substance which by chemical action can corrode and even destroy metals.

10.2. Chemical stability

This substance is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

Reacts violently with water.

Gives off hydrogen by reaction with metals.

10.4. Conditions to avoid

Avoid :

- frost
- heat
- humidity

10.5. Incompatible materials

Keep away from :

- water

- metals
- strong oxidising agents
- strong bases

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)
- hydrogen chloride (HCl)
- chlorine (Cl₂)
- hydrogen (H₂)

SECTION 11 : TOXICOLOGICAL INFORMATION**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure for up to three minutes.

Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

Respiratory tract irritation may occur, together with symptoms such as coughing, choking and breathing difficulties.

11.1.1. Substances**Skin corrosion/skin irritation :**

Causes severe skin burns.

(ECHA, OCDE 404, Hydrochloric acid 37%)

Serious damage to eyes/eye irritation :

Causes serious eye damage.

(ECHA, OCDE 405, Hydrochloric acid 10%)

Respiratory or skin sensitisation :

Not classified sensitizing.

(ECHA, OCDE 406, Hydrochloric acid 98%)

Specific target organ systemic toxicity - single exposure :

May irritate the respiratory tract.

11.2. Information on other hazards**SECTION 12 : ECOLOGICAL INFORMATION****12.1. Toxicity****12.1.1. Substances**

CL50 (Hydrochloric acid 36%, daphnia magna, 48h, ECHA OCDE 202) = 4.92 mg/l

CL50 (Hydrochloric acid 100%, fish, 96h, ECHA) = 3.25 - 35 mg/l

CL50 (Hydrochloric acid 36%, algae, 72h, ECHA OCDE 201) = 4.7 mg/l

12.2. Persistence and degradability

The methods to determine the biodeterioration are not valid for the inorganic substances.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Important solubility and mobility in water and the ground.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

May cause damage to vegetation.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the substance and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 [40-20] - ICAO/IATA 2022 [63]).

14.1. UN number or ID number

1789

14.2. UN proper shipping name

UN1789=HYDROCHLORIC ACID

14.3. Transport hazard class(es)

- Classification :



8

14.4. Packing group

II

14.5. Environmental hazards

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14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	8	C1	II	8	80	1 L	520	E2	2	E
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation	
	8	-	II	1 L	F-A. S-B	-	E2	Category C	SGG1a SG36 SG49	
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	8	-	II	851	1 L	855	30 L	A3 A803	E2	
	8	-	II	Y840	0.5 L	-	-	A3 A803	E2	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

- Container information:

Packaging to be fitted with child-resistant fastenings (see EC Regulation No. 1272/2008, Annex II, Part 3).

Containers to be fitted with a tactile warning of danger (see EC Regulation No. 1272/2008, Annex II, Part 3).

Substance not restricted under Annex XVII of Regulation (EC) no. 1907/2006 (REACH):

<https://echa.europa.eu/substances-restricted-under-reach>.

- Particular provisions :

No data available.

- Labelling for detergents (EC Regulation No. 648/2004, 907/2006) :

Product subject to Regulation (EC) No 648/2004 as amended.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the substance and not as a guarantee of the properties thereof.

This sheet complements the technical instructions for use, but does not replace them. The information it contains are based on our knowledge of the product concerned on the date indicated. They are given in good faith. The attention of users is also drawn to the possible risks incurred when a product is utilisé for purposes other than those for which it is designed.

It does in no way the user from knowing and applying all texts governing his activity. It will take under its sole responsibility the precautions related to the use he makes of the product.

The regulatory requirements referred merely to assist the recipient to fulfill its obligations when using the product dangerous. This list should not be considered exhaustive and does not ensure the recipient qu'éventuellement other obligations incumbent on him not because of texts other than those cited for the holding and handling of the product for which it is solely responsible .

Wording of the phrases mentioned in section 3 :

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

Abbreviations :

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

UFI : Unique formulation identifier.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

GHS05 : Corrosion

GHS07 : Exclamation mark

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.