Printing date 14.10.2021 Version: 4 (replaces version 3) Revision: 14.10.2021

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

- · 1.1 Product identifier
- · Trade name: BETOMEX PLUS LP
- · Article number: 16000001
- · UFI: 64E3-H0N2-K00K-80UA
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Life cycle stages PW Widespread use by professional workers
- · Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

- **Product category** PC35 Washing and cleaning products (including solvent based products)
- · Process category

PROC7 Industrial spraying

PROC11 Non industrial spraying

- · Application of the substance / the mixture Deliming agent
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

ZEP ITALIA SRL

Piazzale Luigi Cadorna, 2

20123 Milano (MI) - Italy;

Via Nettunense Km. 25.000

04011 Aprilia (LT) - Italy

T: +39.06.926691

F: +39.06.92747061

@: tecnico@zepeurope.com

Sito: www.zep.it

ZEP Industries BV

Vierlinghweg 30

4612 PN Bergen op Zoom

The Netherlands

Tel: (NL) + 31 164 250 100 (B) + 32 2 347 0117

 $Fax:(NL) + 31\ 164\ 266\ 710\ (B) + 32\ 2\ 347\ 1395$

@: info@zepbenelux.com

Distributed in the UK by:

ZEP UK Ltd

Tanhouse Lane

Widnes Cheshire, WA8 0RD

United Kingdom

Tel: +44 (0)151 422 1000

Fax: +44 (0)151 422 1011

@: info@zep.co.uk

web: www.zep.co.uk

Further information obtainable from:

Customer Service

NL: Tel: +31 164 250 100 Fax: +31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

· 1.4 Emergency telephone number:

NHS +44 0845 46 47 (England or Wales); +44 08454 24 24 24 (Scotland)

emergency number (europe): 112

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

STOT SE 3 H335 May cause respiratory irritation.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

 (Contd. on page 2)

age 2)

Version: 4 (replaces version 3) Printing date 14.10.2021 Revision: 14.10.2021

Trade name: BETOMEX PLUS LP

· Hazard pictograms

(Contd. of page 1)





GHS05

- · Signal word Danger
- Hazard-determining components of labelling:

hydrochloric acid

Hazard statements

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Precautionary statements

P260 Do not breathe mist/vapours/spray.

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.

Immediately call a POISON CENTER/doctor. P310

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations. P501 2.3 Other hazards The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds.

· Results of PBT and vPvB assessment

· PBT: Not applicable. · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

Dangerous comp	ponents:
----------------	----------

CAS: 7647-01-0 hydrochloric acid 25-50% EINECS: 231-595-7 🚱 Met. Corr.1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318 Index number: 017-002-01-X STOT SE 3, H335 Reg.nr.: 01-2119484862-27-xxxx | Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eve Irrit. 2; H319: $10 \% \le C < 25 \%$

STOT SE 3; H335: C ≥ 10 %

Additional Information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment.

- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:

Do not induce vomiting; call for medical help immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced.

(Contd. on page 3)

Version: 4 (replaces version 3) Revision: 14.10.2021 Printing date 14.10.2021

Trade name: BETOMEX PLUS LP

(Contd. of page 2)

- · 5.3 Advice for firefighters
- · Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear fully protective suit.

Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, universal binders).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Use only in well ventilated areas.

- Information about fire and explosion protection: Keep respiratory protective device available.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Do not store together with alkalis (caustic solutions).
- Further information about storage conditions: Keep receptacle tightly sealed.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

CAS: 7647-01-0 hydrochloric acid

IOELV Short-term value: 15 mg/m³, 10 ppm Long-term value: 8 mg/m³, 5 ppm

- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see item 7.
- Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 4)

Printing date 14.10.2021 Version: 4 (replaces version 3) Revision: 14.10.2021

Trade name: BETOMEX PLUS LP

· Hand protection

(Contd. of page 3)



Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Fluid

- · Not suitable are gloves made of the following materials: Strong material gloves
- · Eye/face protection



Tightly sealed goggles

· Body protection: Acid resistant protective clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on	basic physical	and chemical	l properties
----------------------	----------------	--------------	--------------

· General Information · Physical state

· Colour: Red · Odour: Acrid

Odour threshold:
 Melting point/freezing point:
 Boiling point or initial boiling point and boiling range
 Flammability
 Not determined.
 100 °C
 Not applicable.

Lower and upper explosion limit

Lower: Not determined.
Upper: Not determined.
Flash point: Not applicable.

· Auto-ignition temperature: Product is not selfigniting.

• **Decomposition temperature:** Not determined.

• pH at 20 °C 0.5

· Viscosity:

• Kinematic viscosity Not determined. • Dynamic: Not determined.

Solubility

• water: Fully miscible.
• Partition coefficient n-octanol/water (log value)
• Vapour pressure at 20 °C: 23 hPa

· Density and/or relative density

Density at 20 °C:
Relative density
Vapour density

1.136 g/cm³
Not determined.
Not determined.

· 9.2 Other information

· Appearance:

Fluid

· Important information on protection of health and

environment, and on safety.

Explosive properties: Product does not present an explosion hazard.

Not determined.

· Solvent content:

Organic solvents: 0.0 %
Swiss VOC: 0.02 %

(Contd. on page 5)

Printing date 14.10.2021 Version: 4 (replaces version 3) Revision: 14.10.2021

Trade name: BETOMEX PLUS LP

		(Contd. of page
· Change in condition		
Evaporation rate	Not determined.	
Information with regard to physical hazard clas	ses	
· Explosives	Void	
· Flammable gases	Void	
· Aerosols	Void	
· Oxidising gases	Void	
Gases under pressure	Void	
· Flammable liquids	Void	
· Flammable solids	Void	
· Self-reactive substances and mixtures	Void	
Pyrophoric liquids	Void	
· Pyrophoric solids	Void	
· Self-heating substances and mixtures	Void	
· Substances and mixtures, which emit flammabl	e gases in	
contact with water	Void	
· Oxidising liquids	Void	
· Oxidising solids	Void	
· Organic peroxides	Void	
· Corrosive to metals	Void	
Desensitised explosives	Void	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions Reacts with alkali (lyes).
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Based on available data, the classification criteria are not met.
- LD/LC50 values relevant for classification:

CAS: 7647-01-0 hydrochloric acid

Inhalative LC50/8 h 46.5 mg/m3 (Rat)

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure

May cause respiratory irritation.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards
- Endocrine disrupting properties

None of the ingredients is listed.

FH

Printing date 14.10.2021 Version: 4 (replaces version 3) Revision: 14.10.2021

Trade name: BETOMEX PLUS LP

(Contd. of page 5)

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity:

CAS: 7647-01-0 hydrochloric acid

LC50 / 96 h 20.5 mg/ltr (fish)

EC 50 / 72 H 0.73 (Daphnia magna (water flea))

- · 12.2 Persistence and degradability No further relevant information available.
- Other information: The product is biodegradable.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.
- · 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

Must not reach sewage water or drainage ditch undiluted or unneutralised.

In accordance with the requirements of the RVO in the Act on Detergents and Cleansing Agents, tensides are biodegradable up to at least 90 %.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation Disposal must be made according to official regulations
- · European waste catalogue

HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP8 Corrosive

- Uncleaned packaging:
- · Recommendation: Disposal in accordance with administrative provisions

SECTION 14: Transport information

	14.1	UN	number	or ID	number
--	------	----	--------	-------	--------

· ADR, IMDG, IATA UN3264

· 14.2 UN proper shipping name

· ADR 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

(HYDROCHLORIC ACID)

· IMDG, IATA CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC

ACID)

- · 14.3 Transport hazard class(es)
- \cdot ADR



Class 8 (C1) Corrosive substances.

(Contd. on page 7)

Printing date 14.10.2021 Version: 4 (replaces version 3) Revision: 14.10.2021

Trade name: BETOMEX PLUS LP

	(Contd. of page
· Label	8
· IMDG, IATA	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Corrosive substances.
Hazard identification number (Kemler code):	80
EMS Number:	F-A,S-B
Segregation groups Stowage Category	Acids B
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Maritime transport in bulk according to IM	
instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
. Tugaspout ogtagowy	Maximum net quantity per outer packaging: 500 ml 2
· Transport category · Tunnel restriction code	E E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Ü	(HYDROCHLORIC ACID), 8, II

SECTION 15: Regulatory information

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

Reg. (EC) n. 1272/2008 - CLP;

Reg. (EC) n. 2015/830 annex II of REACH; Dir. 06/08 ADR – RID - IMDG - IATA;

Dir. 12/18 (Seveso III);

Dir. 2008/98/CE and Reg. (EC) n.1357/2014 (Waste management)

- · Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.
- · Hazard pictograms





GHS05 GHS07

- · Signal word Danger
- · Hazard-determining components of labelling:

hydrochloric acid

· Hazard statements

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

(Contd. on page 8)

Printing date 14.10.2021 Version: 4 (replaces version 3) Revision: 14.10.2021

Trade name: BETOMEX PLUS LP

(Contd. of page 7)

Precautionary statements

P260 Do not breathe mist/vapours/spray.

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.

P310 Immediately call a POISON CENTER/doctor.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment

- Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

- · National regulations:
- · Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

· Classification according to Regulation (EC) No 1272/2008 Calculation method

Department issuing SDS:

Customer Service

NL: Tel: +31 164 250 100 Fax: +31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

Contact:

Customer Service

NL: Tel: +31 164 250 100 Fax: +31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

- Date of previous version: 14.10.2021
- Version number of previous version: 3
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

(Contd. on page 9)

Page 9/9

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 14.10.2021 Version: 4 (replaces version 3) Revision: 14.10.2021

Trade name: BETOMEX PLUS LP

WELL: The highest acceptable concentration IOELV: Indicative occupational exposure limit values Met. Corr. I: Corrosive to metals – Category I Skin Corr. IB: Skin corrosion/irritation – Category IB Eye Dam. I: Serious eye damage/eye irritation – Category I STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 * Data compared to the previous version altered.

(Contd. of page 8)