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

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

· **1.1 Product identifier**

· **Trade name: HYDROCHLORIC ACID 35%**

· **Article number:** 20-5502-05
· **Registration number** Hydrogen chloride: 01-2119484862-27
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Product category**
PC2 Adsorbents
PC4 Anti-Freeze and de-icing products
PC7 Base metals and alloys
PC8 Biocidal products
PC9b Fillers, putties, plasters, modelling clay
PC12 Fertilisers
PC13 Fuels
PC14 Metal surface treatment products
PC15 Non-metal-surface treatment products
PC17 Hydraulic fluids
PC19 Intermediate
PC21 Laboratory chemicals
PC23 Leather treatment products
PC24 Lubricants, greases, release products
PC25 Metal working fluids
PC26 Paper and board treatment products
PC27 Plant protection products
PC29 Pharmaceuticals
PC30 Photo-chemicals
PC32 Polymer preparations and compounds
PC33 Semiconductors
PC34 Textile dyes, and impregnating products
PC35 Washing and cleaning products (including solvent based products)
PC37 Water treatment chemicals
PC38 Welding and soldering products, flux products
PC 0: Other: catalyst regenerator, metal treatment, electroning component manufacture, calibration gas
PC 0: Other: wood products
PC 0: Other: Processing aid
PC 0: Other: Intermediate
· **Article category**
AC2 Machinery, mechanical appliances, electrical/electronic articles
AC3 Electrical batteries and accumulators
AC4 Stone, plaster, cement, glass and ceramic articles
AC7 Metal articles
AC8 Paper articles
AC35 Scented paper articles
· **Application of the substance / the mixture**
A strong acid widely used in industrial applications and in food processing (E507: acidity regulator).
· **Uses advised against**
Any use involving aerosol formation or vapour or dust release in excess of the assigned workplace exposure limits where workers are exposed without suitable respiratory protective equipment (RPE).
Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).
Processes involving the use of incompatible substances - refer to section 10.
Processes involving extreme heat use advised against.
The product is stictly intended for industrial or professional use only.

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Severn Biotech Ltd.
Unit 2,
Park Lane,
Kidderminster,
Worcestershire.

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DY11 6TJ
UK
Tel: 0044 1562 825286
Fax: 0044 1562 825284
email: info@severnbiotech.com

· **Further information obtainable from:** Product safety department.
· **1.4 Emergency telephone number:**
UK National Poisons Information Service. E-mail: npis.birmingham@nhs.net; Tel: +44 (0)344 892 0111

SECTION 2: Hazards identification

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

corrosion

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.
· **Hazard pictograms** GHS05, GHS07
· **Signal word** Danger

· **Hazard-determining components of labelling:**
hydrogen chloride
· **Hazard statements**
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
· **Precautionary statements**
P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
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.
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**
· **Description:** An aqueous solution of hydrogen chloride.

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· **Dangerous components:**

CAS: 7647-01-0 EINECS: 231-595-7	hydrogen chloride Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; STOT SE 3, H335	≥25-36%

· **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.
Irritating to respiratory system. May cause delayed pulmonary oedema.
Corrosive to eyes,skin and upper respiratory tract.
Causes injury to the cornea and eyelids.
· **After inhalation:**
DO NOT DELAY!
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 rinse with water.
If skin irritation continues, consult a doctor.
DO NOT DELAY!
· **After eye contact:**
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. Then consult a doctor.
DO NOT DELAY!
· **After swallowing:**
Drink plenty of water and provide fresh air. Call for a doctor immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Give milk of magnesia if available.
DO NOT DELAY!
· **Information for doctor:**
Treat symptomatically and supportively.
Following high inhalative exposure to hydrochloric acid vapours prolonged monitoring of the lung functions is recommended because of possible persisting disorders.
Refer to section 11.
· **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**
In case of fire, the following can be released:
Hydrogen chloride (HCl)
Substance itself is not flammable or explosive. The product reacts with metals with evolution of highly flammable hydrogen.
· **5.3 Advice for firefighters** Suppress gases/mists with water spray jet.
· **Protective equipment:**
Wear fully protective suit.
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.

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· **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Keep people at a distance and stay on the windward side.
Wear protective equipment. Keep unprotected persons away.
· **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow product to reach sewage system or any water course in the undiluted form.
· **6.3 Methods and material for containment and cleaning up:**
Use neutralising agent.
Ensure adequate ventilation.
Avoid release to the environment.
Collect leaking substance with suited acid proof containers. Do not allow to enter into drain or surface waters. Retain material with earth, diatomeous earth and universal absorbant. Collect contaminated material in suited acid proof containers. Dispose of contaminated material and its container as hazardous waste according to local regulations.

Neutralise small spillages with lime or soda ash. Rinse remnant with plenty of water.
· **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.
Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.
This product must only be handled by experienced workers who have been provided with suitable and sufficient training to ensure safe working.
Work areas must be provided with suitable emergency eye wash/shower facilities.
· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Prevent any seepage into the ground.
PVC and polyester are not fully resistant.
Store in steel tanks lined with hard rubber or other resitant inliner, or in plastic containers made of PE or PP or other resistant materials
· **Information about storage in one common storage facility:**
Store away from metals.
Store away from foodstuffs.
· **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Store in a bunded area.
· **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**
· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**	
7647-01-0 hydrogen chloride	
WEL	Short-term value: 8 mg/m³, 5 ppm Long-term value: 2 mg/m³, 1 ppm

· **DNELs**
HYDROGEN CHLORIDE
Workers
Acute / short-term exposure - local effects
Inhalation DN(M)EL
- DNEL (Derived No Effect Level): 15 mg/m³
Long-term exposure - local effects
Inhalation DN(M)EL
- DNEL (Derived No Effect Level): 8 mg/m³
· **PNECs**
HYDROGEN CHLORIDE
PNEC aqua (freshwater): 36 µg/L
PNEC aqua (marine water): 36 µg/L
PNEC aqua (intermittent releases): 45 µg/L
PNEC STP: 36 µg/L
PNEC sediment (freshwater): No exposure of sediment expected
PNEC sediment (marine water): No exposure of sediment expected
PNEC soil: No exposure of soil expected
PNEC oral: No potential for bioaccumulation
· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Do not eat, drink, smoke or sniff while working.
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.
A safe system of work must be formulated and followed to ensure safe working with this product. Relevant workers must receive suitable and sufficient training and supervision.
Take note of assigned Workplace Exposure Limits.
Ensure that eyewash stations and safety showers are close to the workstation location.
Depending on the degree of exposure, periodic medical examination is suggested.
· **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.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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· **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.
· **Eye protection:**

Tightly sealed goggles

· **Body protection:**
Acid resistant protective clothing
Body protection must be chosen depending on product properties, activity and possible exposure.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Fluid
Colour:	Colourless
· **Odour:**	Characteristic
· **pH-value at 20 °C:**	1.0
· **Change in condition**	
Melting point/freezing point:	approx. -70 °C
Initial boiling point and boiling range:	80-110 °C
· **Flash point:**	Not applicable.
· **Auto-ignition temperature:**	Product is not self-igniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Vapour pressure at 20 °C:**	21.3 hPa
· **Density at 20 °C:**	1.12-1.18 g/cm³
· **Solubility in / Miscibility with water:**	Fully miscible.
· **9.2 Other information**	NOTE: The physical data presented above are typical values and should not be construed as a specification.

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 and stored according to specifications.
· **10.3 Possibility of hazardous reactions**
The solution in water is a strong acid, it reacts violently with bases and is corrosive. Reacts violently with oxidants forming toxic gas (chlorine). Attacks many metals in the presence of water forming flammable/ explosive gas (hydrogen).

Risk of explosion in contact with: alkali metals; conc. sulphuric acid.

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The substance can react dangerously with: aluminium; alkali hydroxides; amines; ammonia; fluorine; bases; oxidizing agentsmetal; carbides; calcium hydride; formaldehyde; copper sulphide; lithium silicide; metals; sodium hydride; sodium hypochlorite and its solutions; natron bleaching solution; silanes; silicon dioxide; vinyl methyl ether; zinc.

· **10.4 Conditions to avoid** No further relevant information available.

· **10.5 Incompatible materials:**
Strong bases.
Finely powdered metals.
Substances specificaly listed in section 10.3 as incompatible.

· **10.6 Hazardous decomposition products:**
Hydrogen chloride (HCl)
Chlorine
Hydrogen

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
7647-01-0 hydrogen chloride		
Oral	LD50	900 mg/kg (rabbit)

· **Primary irritant effect:**

· **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.

· **Subacute to chronic toxicity:**
EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: The substance may have effects on the lungs, resulting in chronic bronchitis. The substance may have effects on the teeth, resulting in erosion.

· **Additional toxicological information:**
ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation of gas (HCl) and mist.

Inhalation of high concentrations of the gas (HCl) or mist may cause pneumonitis and lung oedema, resulting in reactive airways dysfunction syndrome (RADS). The effects may be delayed. Medical observation is indicated.
The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor or a person authorised by him/her, should be considered.

· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**

· **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.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.

· **12.4 Mobility in soil** No further relevant information available.

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· **Additional ecological information:**
· **General notes:**
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.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
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.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Recommended Hierarchy of Controls:
- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).
Contact waste processors for recycling information.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· **Uncleaned packaging:**
· **Recommendation:**
Disposal must be made according to official regulations.
Container remains hazardous when empty. Continue to observe all precautions.
Containers, even those that are “empty,” may contain residues that can develop hazardous gases and vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.
· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· **14.1 UN-Number**	
· **ADR, IMDG, IATA**	1789
· **14.2 UN proper shipping name**	
· **ADR**	1789 HYDROCHLORIC ACID, solution
· **IMDG, IATA**	HYDROCHLORIC ACID, solution
· **14.3 Transport hazard class(es)**	
· **ADR, IMDG, IATA**	

· **Class**	8 Corrosive substances.
· **Label**	8
· **14.4 Packing group**	
· **ADR, IMDG, IATA**	II

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· **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
· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	1 litre
· **Tunnel restriction code**	E
· **UN "Model Regulation":**	UN1789, HYDROCHLORIC ACID, solution, 8, II

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has 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**
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

· **Department issuing SDS:** Product safety department.
· **Abbreviations and acronyms:**
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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
· *** Data compared to the previous version altered.**

Annex: Exposure scenario

· **Sector of Use** SU5 Manufacture of textiles, leather, fur
· **Product category**
PC2 Adsorbents
PC4 Anti-Freeze and de-icing products

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PC7 Base metals and alloys
PC8 Biocidal products
PC9b Fillers, putties, plasters, modelling clay
PC12 Fertilisers
PC13 Fuels
PC14 Metal surface treatment products
PC15 Non-metal-surface treatment products
PC17 Hydraulic fluids
PC19 Intermediate
PC21 Laboratory chemicals
PC23 Leather treatment products
PC24 Lubricants, greases, release products
PC25 Metal working fluids
PC26 Paper and board treatment products
PC27 Plant protection products
PC29 Pharmaceuticals
PC30 Photo-chemicals
PC32 Polymer preparations and compounds
PC33 Semiconductors
PC34 Textile dyes, and impregnating products
PC35 Washing and cleaning products (including solvent based products)
PC37 Water treatment chemicals
PC38 Welding and soldering products, flux products
PC 0: Other: catalyst regenerator, metal treatment, electroning component manufacture, calibration gas
PC 0: Other: wood products
PC 0: Other: Processing aid
PC 0: Other: Intermediate

· **Article category**
AC2 Machinery, mechanical appliances, electrical/electronic articles
AC3 Electrical batteries and accumulators
AC4 Stone, plaster, cement, glass and ceramic articles
AC7 Metal articles
AC8 Paper articles
AC35 Scented paper articles

· **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.

· **Conditions of use**

· **Duration and frequency** 5 workdays/week.

· **Physical parameters**

· **Physical state** Fluid

· **Concentration of the substance in the mixture** The substance is main component.

· **Used amount per time or activity** According to directions for use.

· **Other operational conditions**

· **Other operational conditions affecting environmental exposure**
Observe section 6 of the Safety Data Sheet (Accidental release measures).

· **Other operational conditions affecting worker exposure**
Avoid contact with eyes.
Avoid contact with the skin.
Observe first aid measures (for treatment of exposure due to accidents).
Do not breathe gas/fume/vapour/aerosol.
Keep container tightly closed and in a well-ventilated place.
Ensure adequate ventilation, especially in closed rooms.
Prohibit storage of food in work areas.
Avoid direct contact with the chemical /product / preparation by organisational measures.
Observe section 6 of the Safety Data Sheet (Accidental release measures).

· **Other operational conditions affecting consumer exposure** Keep out of the reach of children.

· **Other operational conditions affecting consumer exposure during the use of the product** Not applicable.

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· **Risk management measures**
· **Worker protection**
· **Organisational protective measures**
Deploy only trained chemical workers.
Provide Internal Plant Instruction.
Employment restrictions concerning juveniles must be observed.
Handling procedures must be well documented.
Ensure that activities are executed by specialists or authorised personnel only.
Keep away from food, beverages and animal feed.
Provide washing facilities in the workplace.
Read first aid measures for treatment prior to contact with the product.
Make sure that the workplace is well-lit and organised.
Provide emergency eye wash station and mark its location clearly.
· **Technical protective measures**
Ensure that suitable extractors are available on processing machines
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
Restrict the quantity stored at the work place.
Use only in well ventilated areas.
Washing facilities / Water for cleaning eyes and skin should be available.
· **Personal protective measures**
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
Avoid contact with the eyes.
Tightly sealed goggles
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.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not eat or drink while working.
Be sure to clean skin thoroughly after work and before breaks.
Ensure that washing facilities are available at the work place.
Use suitable respiratory protective device in case of insufficient ventilation.
Acid resistant protective clothing
· **Measures for consumer protection**
Ensure adequate labelling.
Provide instructions for use.
Keep locked up and out of the reach of children.
· **Environmental protection measures**
· **Air** Exhaust air is introduced into the adsorption tower.
· **Water**
Do not allow to reach ground water, water bodies or sewage system.
Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.
· **Soil** Prevent contamination of soil.
· **Disposal measures**
Ensure that waste is collected and contained.
Must not be disposed of with household waste. Do not allow to reach sewage system.
Disposal must be made according to official regulations.

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Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· **Disposal procedures**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Containers, even those that are “empty,” may contain residues that can develop hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

· **Waste type** Partially emptied and uncleaned packaging

· **Exposure estimation**

· **Consumer** Not relevant for this Exposure Scenario.

· **Guidance for downstream users** No further relevant information available.