

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.11.2012

Revision: 01.11.2012

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

· **Product identifier**

· **Trade name:** EDTA acid

· **Article number:** 30-231-10

· **CAS Number:**

60-00-4

· **EC number:**

200-449-4

· **Index number:**

607-429-00-8

· **Registration number** 01-2119486762-27

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

Intermediate; production of chelates; chelating agent; use of chelates in building and construction; manufacture of H4EDTA ; use of chelates in spraying formulations; in Adhesives and Sealants; Use of H4EDTA in Air Care products; Use of H4EDTA in Biocidal products; Use of H4EDTA in Coatings, paints, thinners, paint removers and fillers, putties, plasters, modelling clay; Use of H4EDTA in Metal surface treatment products; use of H4EDTA in Non-metal surface treatment products; use of H4EDTA in Photo-chemicals; Use of H4EDTA in Polishes and wax blends; Use of H4EDTA in Textile dyes, finishing and impregnating products; Use of H4EDTA in Washing and cleaning products; Use of chelates in consumer products.

· **Sector of Use**

SU0 Other

SU1 Agriculture, forestry, fishery

SU2a Mining, (without offshore industries)

SU2b Offshore industries

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

SU4 Manufacture of food products

SU5 Manufacture of textiles, leather, fur

SU6a Manufacture of wood and wood products

SU6b Manufacture of pulp, paper and paper products

SU7 Printing and reproduction of recorded media

SU8 Manufacture of bulk, large scale chemicals (including petroleum products)

SU9 Manufacture of fine chemicals

SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU11 Manufacture of rubber products

SU12 Manufacture of plastics products, including compounding and conversion

SU13 Manufacture of other non-metallic mineral products, e.g. plasters, cement

SU14 Manufacture of basic metals, including alloys

SU15 Manufacture of fabricated metal products, except machinery and equipment

SU16 Manufacture of computer, electronic and optical products, electrical equipment

SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment

SU18 Manufacture of furniture

SU19 Building and construction work

SU20 Health services

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

SU23 Electricity, steam, gas water supply and sewage treatment

SU24 Scientific research and development

· **Product category**

PC0 Other

PC1 Adhesives, sealants

PC2 Adsorbents

PC3 Air care products

PC4 Anti-Freeze and de-icing products

PC7 Base metals and alloys

PC8 Biocidal products (e.g. Disinfectants, pest control)

PC9a Coatings and paints, thinners, paint removers

PC9b Fillers, putties, plasters, modelling clay

PC9c Finger paints

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PC10: Building and construction preparations
 PC11 Explosives
 PC12 Fertilizers
 PC13 Fuels
 PC14 Metal surface treatment products, including galvanic and electroplating products
 PC15 Non-metal-surface treatment products
 PC16 Heat transfer fluids
 PC17 Hydraulic fluids
 PC18 Ink and toners
 PC19 Intermediate
 PC20 Products such as ph-regulators, flocculants, precipitants, neutralization agents
 PC21 Laboratory chemicals
 PC23 Leather tanning, dye, finishing, impregnation and care products
 PC24 Lubricants, greases, release products
 PC25 Metal working fluids
 PC26 Paper and board dye, finishing and impregnation products: including bleaches and other processing aids
 PC27 Plant protection products
 PC28 Perfumes, fragrances
 PC29 Pharmaceuticals
 PC30 Photo-chemicals
 PC31 Polishes and wax blends
 PC32 Polymer preparations and compounds
 PC33 Semiconductors
 PC34 Textile dyes, finishing and impregnating products; including bleaches and other processing aids
 PC35 Washing and cleaning products (including solvent based products)
 PC36 Water softeners
 PC37 Water treatment chemicals
 PC38 Welding and soldering products (with flux coatings or flux cores.), flux products
 PC39 Cosmetics, personal care products
 PC40 Extraction agents

Process category

PROC1 Use in closed process, no likelihood of exposure
 PROC2 Use in closed, continuous process with occasional controlled exposure
 PROC3 Use in closed batch process (synthesis or formulation)
 PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises
 PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
 PROC6 Calendering operations
 PROC7 Industrial spraying
 PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
 PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
 PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
 PROC10 Roller application or brushing
 PROC11 Non industrial spraying
 PROC12 Use of blowing agents in manufacture of foam
 PROC13 Treatment of articles by dipping and pouring
 PROC14 Production of preparations or articles by tableting, compression, extrusion, pelletisation
 PROC15 Use as laboratory reagent
 PROC17 Lubrication at high energy conditions and in partly open process
 PROC18 Greasing at high energy conditions
 PROC19 Hand-mixing with intimate contact and only PPE available

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- PROC21 Low energy manipulation of substances bound in materials and/or articles
- PROC22 Potentially closed processing operations with minerals/metals at elevated temperature - Industrial setting
- PROC23 Open processing and transfer operations with minerals/metals at elevated temperature
- PROC24 High (mechanical) energy work-up of substances bound in materials and/or articles

- **Environmental release category**

- ERC1 Manufacture of substances
- ERC2 Formulation of preparations
- ERC3 Formulation in materials
- ERC4 Industrial use of processing aids in processes and products, not becoming part of articles
- ERC5 Industrial use resulting in inclusion into or onto a matrix
- ERC6a Industrial use resulting in manufacture of another substance (use of intermediates)
- ERC6b Industrial use of reactive processing aids
- ERC6c Industrial use of monomers for manufacture of thermo-plastics
- ERC6d Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
- ERC7 Industrial use of substances in closed systems
- ERC8a Wide dispersive indoor use of processing aids in open systems
- ERC8b Wide dispersive indoor use of reactive substances in open systems
- ERC8c Wide dispersive indoor use resulting in inclusion into or onto a matrix
- ERC8d Wide dispersive outdoor use of processing aids in open systems
- ERC8e Wide dispersive outdoor use of reactive substances in open systems
- ERC8f Wide dispersive outdoor use resulting in inclusion into or onto a matrix
- ERC9a Wide dispersive indoor use of substances in closed systems
- ERC9b Wide dispersive outdoor use of substances in closed systems
- ERC10a Wide dispersive outdoor use of long-life articles and materials with low release
- ERC10b Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)
- ERC11a Wide dispersive indoor use of long-life articles and materials with low release
- ERC11b Wide dispersive indoor use of long-life articles and materials with high or intended release (including abrasive processing)
- ERC12a Industrial processing of articles with abrasive techniques (low release)
- ERC12b Industrial processing of articles with abrasive techniques (high release)

- **Article category**

- AC0 Other
- AC4 Stone, plaster, cement, glass and ceramic articles

- **Application of the substance / the preparation**

EDTA is used as a chelating agent and is widely used to sequester di- and trivalent metal ions.

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Severn Biotech Ltd.
 Unit 2,
 Park Lane,
 Kidderminster,
 Worcestershire.
 DY11 6TJ
 UK
 Tel: 0044 1562 825286
 Fax: 0044 1562 825284
 email: info@severnbiotech.com

- **Further information obtainable from:** Product safety department.

- **Emergency telephone number:** Tel: 0044 1562 825286 (not 24 hours)

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2 Hazards identification

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



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36: Irritating to eyes.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms** GHS07

- **Signal word** Warning

- **Hazard statements**

H319 Causes serious eye irritation.

- **Precautionary statements**

P101

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

P102

Keep out of reach of children.

P103

Read label before use.

P260

Do not breathe dust.

P280

Wear protective gloves and eye protection.

P305+P351+P338

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

P337+P313

If eye irritation persists: Get medical advice/attention.

P401

Store in accordance with local/regional/national/international regulations.

P501

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

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

60-00-4 Edetic acid

- **Identification number(s)**

- **EC number:** 200-449-4

- **Index number:** 607-429-00-8

4 First aid measures

- **Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:**

Immediately rinse with water.

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If skin irritation continues, consult a doctor.

- **After eye contact:**

DO NOT DELAY!

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Call a doctor immediately.

- **Information for doctor:** Treat symptomatically and supportively.

- **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:**

Fire-extinguishing powder

Foam

- **For safety reasons unsuitable extinguishing agents:** Carbon dioxide

- **Special hazards arising from the substance or mixture**

Combustible. Gives off irritating or toxic fumes (or gases) in a fire.

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

- **Advice for firefighters**

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Avoid formation of dust.

Ensure adequate ventilation

Keep ignition sources away - no smoking.

- **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to penetrate the ground/soil.

- **Methods and material for containment and cleaning up:**

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

- **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.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Prevent formation of dust.
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Dust explosion possible if in powder or granular form, mixed with air.
Avoid whirling up the material/product because of the danger of dust explosion.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Prevent any seepage into the ground.
Suitable materials for containers: Low density polyethylene (LDPE), glass, paper, board, High density polyethylene (HDPE).
- **Information about storage in one common storage facility:**
Store away from oxidizing agents.
Store away from metals.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **DNELs**
WORKERS
Acute / short-term exposure - systemic effects
Inhalation DN(M)EL
- DNEL (Derived No Effect Level): 2.5 mg/m³

Acute / short-term exposure - local effects
Inhalation DN(M)EL
- DNEL (Derived No Effect Level): 2.5 mg/m³

GENERAL POPULATION
Acute / short-term exposure - systemic effects
Inhalation DN(M)EL
- DNEL (Derived No Effect Level): 1.5 mg/m³

Acute / short-term exposure - local effects
Inhalation DN(M)EL
- DNEL (Derived No Effect Level): 1.5 mg/m³

Long-term exposure - systemic effects
Oral DN(M)EL
- DNEL (Derived No Effect Level): 25 mg/kg bw/day
- **PNECs**
PNEC aqua (freshwater): 2.2 mg/L
PNEC aqua (marine water): 0.22 mg/L

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PNEC aqua (intermittent releases): 1.2 mg/L

PNEC STP: 43 mg/L

PNEC soil: 0.72 mg/kg soil dw

· **Additional information:** The lists valid during the making were used as basis.· **Exposure controls**· **Personal protective equipment:**

Select PPE appropriate for the operations taking place taking into account the product properties.

· **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.

Avoid contact with the eyes.

Avoid close or long term contact with the skin.

Do not eat, drink, smoke or sniff while working.

Do not breath dust

· **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.

Suitable respiratory protection for lower concentrations or short-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

· **Protection of hands:**

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

Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

· **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.

· **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

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:****Form:**

Crystalline powder

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· Colour:	White
· Odour:	Odourless
· pH-value (0.5 g/l) at 20 °C:	2.5
· Change in condition	
Melting point/Melting range:	220 °C (decomp)
Boiling point/Boiling range:	Undetermined.
· Flash point:	> 100 °C
· Flammability (solid, gaseous):	Product is not flammable.
· Ignition temperature:	>400 °C
· Danger of explosion:	Product is not explosive. However, formation of explosive air/dust mixtures are possible.
· Density at 20 °C:	1.46 g/cm ³
· Solubility in / Miscibility with water at 20 °C:	400 mg/l
· Partition coefficient (n-octanol/water) at 25 °C:	-3.86 log POW
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Decarboxylates above 150 degs. C.

Combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Finely dispersed particles form explosive mixtures in air.

- **Possibility of hazardous reactions**
Reacts with strong oxidants.
Attacks some forms of metals and rubber.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
Strong oxidising agents.
Strong bases.
Finely powdered metals.
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

60-00-4 EDTA acid

Oral	LD50	4500 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.

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- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation of the dust or aerosol and by ingestion.
- **INHALATION RISK:** A nuisance-causing concentration of airborne particles can be reached quickly.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** biodegradable
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** Product is not expected to bioaccumulate.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Contact waste processors for recycling information.
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.
- **European waste catalogue**
Waste key numbers in accordance with the European Waste catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier.
The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|----------------------------------|------|
| · UN-Number | |
| · ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | |
| · ADR, ADN, IMDG, IATA | Void |

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· Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	-

15 Regulatory information

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

- **Department issuing MSDS:** Product safety department.

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