SAFETY DATA SHEET
generated by the SBLCore software

SAFETY DATA SHEET
according to Regulation (EC) No 1907/2006 (REACH) as amended

Ethylenediaminetetraacetic acid

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

1.1. Product identifier

Substance / mixture: Ethylenediaminetetraacetic acid
Chemical name: (EDTA)
CAS number: 60-00-4
Index number: 607-429-00-8
EC (EINECS) number: 200-449-4
Registration number: 01-2119486399-18-xxxx
Other substance name: EDTA

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

Substance's intended use: Chemical production, analytical chemistry, laboratory synthesis, industrial applications.
Substance uses advised against: The product should not be used in ways other than those referred in Section 1.

Chemical safety report

1.3. Details of the supplier of the safety data sheet

Supplier
Name or trade name: Ing. Petr Švec - PENTA s.r.o.
Address: Radiová 1122/1, Praha 10, 102 00 Czech Republic
Identification number (CRN): 02096013
VAT Reg No: CZ02096013
Phone: +420 226 060 681
E-mail: info@pentachemicals.eu
Web address: www.pentachemicals.eu

Competent person responsible for the safety data sheet
Name: Ing. Petr Švec - PENTA s.r.o.
E-mail: info@pentachemicals.eu

1.4. Emergency telephone number

National Health Service (NHS) 111
National poisoning information centre Scotland, NHS 24: 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the substance in accordance with Regulation (EC) No 1272/2008
The substance is classified as dangerous.

Eye Irrit. 2, H319

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse effects on human health and the environment
Causes serious eye irritation.

2.2. Label elements

Hazard pictogram

Signal word
Warning
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Dangers substance
(EDTA) (Index: 607-429-00-8; CAS: 60-00-4)

Hazard statements
H319 Causes serious eye irritation.

Precautionary statements
P280 Wear 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.

2.3. Other hazards
Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients
3.1. Substances
Chemical characterization
The substance specified below.

<table>
<thead>
<tr>
<th>Identification numbers</th>
<th>Substance name</th>
<th>Content in % weight</th>
<th>Classification according to Regulation (EC) No 1272/2008</th>
<th>Note.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index: 607-429-00-8</td>
<td>substance main component (EDTA)</td>
<td>&gt;99</td>
<td>Eye Irrit. 2, H319</td>
<td></td>
</tr>
<tr>
<td>CAS: 60-00-4</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures
4.1. Description of first aid measures
Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled
Terminate the exposure immediately; move the affected person to fresh air.

If on skin
Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

If in eyes
Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. Provide medical treatment, specialized if possible.

If swallowed
DO NOT INDUCE VOMITING! Rinse out the mouth with water and provide 2-5 dL of water. Provide medical treatment if the person has any health problems.
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4.2. Most important symptoms and effects, both acute and delayed
   If inhaled
   Not expected.
   If on skin
   Not expected.
   If in eyes
   Causes serious eye irritation.
   If swallowed
   Irritation, nausea.

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

SECTION 5: Firefighting measures
5.1. Extinguishing media
   Suitable extinguishing media
   Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.
   Unsuitable extinguishing media
   Water - full jet.

5.2. Special hazards arising from the substance or mixture
   In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters
   Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
   Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Prevent contact with skin and eyes.

6.2. Environmental precautions
   Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up
   Place the product mechanically in an appropriate manner. Dispose of the collected material according to the instructions in the section 13.

6.4. Reference to other sections
   See the Section 7, 8 and 13.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
   Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

7.2. Conditions for safe storage, including any incompatibilities
   Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose.

7.3. Specific end use(s)
   not available

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
   none
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8.2. Exposure controls
Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection
Protective goggles.

Skin protection
Hand protection: Protective gloves resistant to the product. Contaminated skin should be washed thoroughly.

Respiratory protection
It is not needed.

Thermal hazard
Not available.

Environmental exposure controls
Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Appearance
- Physical state: solid at 20°C
- Color: white
Odour: without fragrance
Odour threshold: data not available
pH: 2.5 (10g/l% solution at 23 °C)
Melting point/freezing point: 250 °C
Initial boiling point and boiling range: data not available
Flash point: data not available
Evaporation rate: data not available
Flammability (solid, gas): data not available
Upper/lower flammability or explosive limits: data not available
Flammability limits: data not available
explosive limits: data not available
Vapour pressure: data not available
Vapour density: data not available
Relative density: data not available
Solubility(ies)
- solubility in water: data not available
- solubility in fats: data not available
Partition coefficient: n-octanol/water: -3.34
Auto-ignition temperature: data not available
Decomposition temperature: data not available
Viscosity: data not available
Explosive properties: data not available
Oxidising properties: data not available

9.2. Other information
Density: 0.86 g/cm³ at 20 °C
Ignition temperature: data not available

SECTION 10: Stability and reactivity

10.1. Reactivity
The substance is non-flammable.

10.2. Chemical stability
The product is stable under normal conditions.
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10.3. Possibility of hazardous reactions
Unknown.

10.4. Conditions to avoid
The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials
Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products
Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
No toxicological data is available for the substance.

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

Skin corrosion/irritation
Based on available data the classification criteria are not met.

Serious eye damage/irritation
Causes serious eye irritation.

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.

Toxicity for specific target organ - single exposure
Based on available data the classification criteria are not met.

Toxicity for specific target organ - 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

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

12.2. Persistence and degradability
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<table>
<thead>
<tr>
<th>Component</th>
<th>Data available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethylenediaminetetraacetic acid</strong></td>
<td>Data not available.</td>
</tr>
</tbody>
</table>

**12.3. Bioaccumulative potential**
Not available.

**12.4. Mobility in soil**
Not available.

**12.5. Results of PBT and vPvB assessment**
Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

**12.6. Other adverse effects**
Not available.

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**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**
Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

**Waste management legislation**

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**SECTION 14: Transport information**

**14.1. UN number**
Not subject to ADR

**14.2. UN proper shipping name**
Not available

**14.3. Transport hazard class(es)**
Not available

**14.4. Packing group**
Not available

**14.5. Environmental hazards**
Not available

**14.6. Special precautions for user**
Not available

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**
Not available

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**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
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SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H319 Causes serious eye irritation.

Guidelines for safe handling used in the safety data sheet

P280 Wear 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.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR European agreement concerning the international carriage of dangerous goods by road
BCF Bioconcentration Factor
CAS Chemical Abstracts Service
CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL Derived no-effect level
EC Identification code for each substance listed in EINECS
EC50 Concentration of a substance when it is affected 50% of the population
EINECS European Inventory of Existing Commercial Chemical Substances
EmS Emergency plan
EU European Union
IATA International Air Transport Association
IBC International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC50 Concentration causing 50% blockade
ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
INCI International Nomenclature of Cosmetic Ingredients
ISO International Organization for Standardization
IUPAC International Union of Pure and Applied Chemistry
LC50 Lethal concentration of a substance in which it can be expected death of 50% of the population
LD50 Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC Lowest observed adverse effect concentration
LOAEL Lowest observed adverse effect level
log Kow Octanol-water partition coefficient
MARPOL International Convention for the Prevention of Pollution From Ships
NOAEC No observed adverse effect concentration
NOAEL No observed adverse effect level
NOEC No observed effect concentration
NOEL No observed effect level
OEL Occupational Exposure Limits
PBT Persistent, Bioaccumulative and Toxic
PNEC Predicted no-effect concentration
ppm Parts per million
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals
RID Agreement on the transport of dangerous goods by rail
UN Four-figure identification number of the substance or article taken from the UN Model Regulations
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<table>
<thead>
<tr>
<th>Substance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UVCB</td>
<td>Substances of unknown or variable composition, complex reaction products or biological materials</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile organic compounds</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

Eye Irrit. Eye irritation

Training guidelines
Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use
not available

Information about data sources used to compile the Safety Data Sheet

More information
Classification procedure - calculation method.

Statement
The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.