SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2019
Date Updated: January 23, 2019

SECTION 1. - - - - - - - - - PRODUCT AND COMPANY IDENTIFICATION- - - - - - - - - -

Product Name	EDTA, disodium salt, dihydrate
Product Code(s)	EB0185
Recommended Use	For Laboratory Research Use Only Not for Human or Animal Drug Use
Supplier	Bio Basic Inc.
Address	20 Konrad Crescent, Markham, Ontario, Canada, L3R 8T4
Telephone	(905) 474 4493
Fax	(905) 474 5794
For Chemical Emergency Phone#	(416) 995 9730

SECTION 2. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - -

GHS Classification

Classification (REGULATION (EC) No 1272/2008)
Acute toxicity, Inhalation (Category 4), H332
Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Respiratory Tract,
H373 For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram

Signal word: Warning

Hazard statement(s)

H332	Harmful if inhaled.
H373	May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

Precautionary statement(s)
Response

P314	Get medical advice/ attention if you feel unwell.

Other hazards

None known.

SECTION 3. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -

Chemical Name	EC No.	CAS-No	Weight %
EDTA disodium salt	205-358-3	6381-92-6	<100

SECTION 4. - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - - -

Description of first aid measures
After inhalation: fresh air. Call in physician.
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
After eye contact: rinse out with plenty of water. Remove contact lenses.
After swallowing: immediately make victim drink water (two glasses at most).
Consult a physician.

Most important symptoms and effects, both acute and delayed
We have no description of any symptoms of toxicity.

Indication of any immediate medical attention and special treatment needed
No information available.

SECTION 5. - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -

Extinguishing media
Suitable extinguishing media
Water, Foam, Carbon dioxide (CO2), Dry powder
Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture
Combustible.
Development of hazardous combustion gases or vapours possible in the event of fire. Fire may cause evolution of:
nitrogen oxides

Advice for firefighters
Special protective equipment for firefighters
In the event of fire, wear self-contained breathing apparatus.
Further information

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - - -

Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:
Protective equipment see section 8.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections
Indications about waste treatment see section 13.

SECTION 7. - - - - - - - - - - HANDLING AND STORAGE- - - - - - - - - - -

Precautions for safe handling
Advice on safe handling
Work under hood. Do not inhale substance/mixture.
Observe label precautions.
Hygiene measures
Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers
No aluminium, tin, or zinc containers.
Storage conditions
Tightly closed. Dry.
Recommended storage temperature see product label.

Specific end use(s)
See exposure scenario in the Annex to this SDS.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

Control parameters
Derived No Effect Level (DNEL)

Worker DNEL, acute	Local effects	inhalation	3 mg/m³
Worker DNEL, longterm	Local effects	inhalation	1,5 mg/m³
Consumer DNEL, acute	Local effects	inhalation	1,2 mg/m³
Consumer DNEL, longterm	Local effects	inhalation	0,6 mg/m³
Consumer DNEL, longterm	Systemic effects	oral	25 mg/kg Body weight

Predicted No Effect Concentration (PNEC)

PNEC Fresh water	2,2 mg/l
PNEC Marine water	0,22 mg/l
PNEC Aquatic intermittent release	1,2 mg/l
PNEC Sewage treatment plant	43 mg/l
PNEC Soil	0,72 mg/kg

Exposure controls
Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7.1.

Individual protection measures
Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye/face protection
Safety glasses
Hand protection
full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment protective clothing
Respiratory protection required when dusts are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls
Do not let product enter drains.

SECTION 9. - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - -

Appearance

Form	solid
Colour	colourless

Safety data

pH	4.0 - 5.5 at 10 g/l at 23 °C (73 °F)
Melting	Melting point/range: 248 °C (478 °F)

point/freezing point	
Boiling point	No data available
Flash point	> 100 °C (> 212 °F) - DIN 51758
Ignition temperature	> 100 °C (> 212 °F)
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Density	No data available
Water solubility	ca.100 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water	No data available
Relative vapour density	No data available
Odour	odourless
Odour Threshold	No data available
Evaporation rate	No data available

SECTION 10. - - - - - - - - -STABILITY AND REACTIVITY - - - - - - - - -

Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

Chemical stability

Releases water of crystallization when heated.

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

Conditions to avoid

Strong heating.

Incompatible materials

Aluminium, Copper, Copper alloys, Nickel, Zinc

Hazardous decomposition products

in the event of fire: See section 5.

SECTION 11. - - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - -

Information on toxicological effects

Acute oral toxicity

LD50 Rat: 2.800 mg/kg

OECD Test Guideline 401

(anhydrous substance)

Acute inhalation toxicity

Acute toxicity estimate: 1,6 mg/l; dust/mist

Expert judgement

Acute dermal toxicity

This information is not available.

Skin irritation

Rabbit

Result: No irritation

OECD Test Guideline 404

(anhydrous substance)

Eye irritation

Rabbit

Result: No eye irritation

(ECHA) (anhydrous substance)

Sensitisation

This information is not available.

Germ cell mutagenicity

Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

(anhydrous substance) (Lit.)

Mouse lymphoma test

Result: negative

(ECHA) (anhydrous substance)

Carcinogenicity

This information is not available.

Reproductive toxicity

This information is not available.

Teratogenicity

This information is not available.

Specific target organ toxicity - single exposure

This information is not available.

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Exposure routes: Inhalation

Target Organs: Respiratory Tract

Repeated dose toxicity

Rat male

Inhalation aerosol

5 d

daily

LOAEL: 0,03 mg/l

OECD Test Guideline 412 Target Organs: Lungs, larynx

Rat

male and female Inhalation dust/mist

90 d daily

NOAEL: 0,003 mg/l OECD Test Guideline 413 Target Organs: larynx

Rat male Oral

13 Weeks daily

NOAEL: >= 500 mg/kg (ECHA)

Aspiration hazard

This information is not available.

SECTION 12. - - - - - - - - - ECOLOGICAL INFORMATION - - - - - - - - - -

Toxicity

Toxicity to fish
LC50 Poecilia reticulata (guppy): ca. 320 mg/l;
96 h (anhydrous substance) (IUCLID)
Toxicity to bacteria

EC50 activated sludge: 403 mg/l; 3 h

OECD Test Guideline 209
EC50 Pseudomonas putida: 56 mg/l;
8 h (anhydrous substance) (IUCLID)

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

Other adverse effects

Discharge into the environment must be avoided.

SECTION 13. - - - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - - - -

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

SECTION 14. - - - - - - - - - - TRANSPORT INFORMATION - - - - - - - - -

TDG (Canada)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15. - - - - - - - - - REGULATORY INFORMATION - - - - - - - - - -

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

EU regulations

Major Accident Hazard	SEVESO III
Legislation	Not applicable
Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	not regulated
Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC	not regulated

Substances of very high concern (SVHC)
This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of ≥0.1 % (w/w).
National legislation

Storage class	10 - 13

Chemical safety assessment
A Chemical Safety Assessment has been carried out according to regulation (EC) No. 1907/2006 (REACH) for this substance.

SECTION 16. - - - - - - - - - - OTHER INFORMATION- - - - - - - - - - -

Full text of H-Statements referred to under sections 2 and 3.

H332	Harmful if inhaled.

H373	May cause damage to organs through prolonged or repeated exposure if inhaled.

Training advice

Provide adequate information, instruction and training for operators.

Labelling

Hazard pictograms

Signal word

Warning

Hazard statements

H332 Harmful if inhaled.

H373 May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

Precautionary statements

Response

P314 Get medical advice/ attention if you feel unwell.

Contains: Disodium dihydrogen ethylenediaminetetraacetate dihydrate

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Regional representation

This information is given on the authorised Safety Data Sheet for your country.

Further information: no limited for paper copy, just for internal uses.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS