Safety Data Sheet
EDTA 2Na

1. Identification

Product identifier used on the label

Disodium Ethylenediaminetetraacetate

Recommended use of the chemical and restriction on use
Recommended use: complexing agents
Printing inks Surface treatment agent
Suitable for use in industrial sector: printing ink industry; chemical industry

* The “Recommended use” identified for this product is provided solely to comply with a US Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
Global Chemical Resources
1925 Nebraska Avenue
Toledo, OH 43607

Telephone: 419-242-1004

Emergency telephone number

CHEMTREC: 1-800-424-9300

Other means of identification
Synonyms: EDTA-DIHYDROGEN DISODIUM SALT

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200

Classification of the product

Acute Tox. 4 (Inhalation - dust) Acute toxicity

Label elements (Emergency overview)

Pictogram:

Signal Word:
Warning

Hazard Statement:

H332	Harmful if inhaled.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P260	Do not breathe dust.

Precautionary Statements (Response):

P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Hazards not otherwise classified

The product is under certain conditions capable of dust explosion.

Emergency overview

According to Regulation 1994 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200

CAUTION:
INGESTION MAY CAUSE GASTRIC DISTURBANCES.
May cause irritation.
MAY CAUSE RESPIRATORY TRACT IRRITATION.
Avoid contact with the skin, eyes and clothing.
Avoid inhalation of dusts/mists/vapours.
Use with local exhaust ventilation.
Wear protective clothing.
Wear NIOSH-certified chemical goggles.
Wear a NIOSH-certified (or equivalent) particulate respirator.
Wear chemical resistant protective gloves.
Eye wash fountains and safety showers must be easily accessible.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200

CAS Number	Content (W/W)	Chemical name
139-33-3	85.0 - 100.0 %	Disodium ethylenediaminetetraacetate

According to Regulation 1994 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200

CAS Number	Content (W/W)	Chemical name
139-33-3	85.0 - 100.0 %	Disodium ethylenediaminetetraacetate

4. First-Aid Measures

Description of first aid measures

General advice:
Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

If on skin:
Wash thoroughly with soap and water.

If in eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:
Rinse mouth immediately and then drink plenty of water, induce vomiting, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: difficulty breathing, gastrointestinal complaints, irritation of the mucous membranes

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:	Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
dry powder, foam

Unsuitable extinguishing media for safety reasons:
carbon dioxide

Additional information:
Avoid whirling up the material/product because of the danger of dust explosion.

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

Impact Sensitivity:
Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Use personal protective clothing. Information regarding personal protective measures see, section 8.

Environmental precautions
Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up
For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Contain with dust binding material and dispose of.
Avoid raising dust. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling
Closed containers should only be opened in well-ventilated areas.

Protection against fire and explosion:
Avoid dust formation. The product is capable of dust explosion. Take precautionary measures against static discharges. Avoid all sources of ignition: heat, sparks, open flame.

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Low density polyethylene (LDPE), glass, paper, board, High density polyethylene (HDPE)

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

8. Exposure Controls/Personal Protection

Advice on system design:
Provide local exhaust ventilation to control dust.

Personal protective equipment

Respiratory protection:
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:
Chemical resistant protective gloves

Eye protection:
Safety glasses with side-shields.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:
Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. Wash soiled clothing immediately.

9. Physical and Chemical Properties

Form:	powder	
Odour:	product specific	
Odour threshold:	No data available.	
Colour:	white	
pH value:	4 - 5	(10 g/l, 23 °C) (DIN 19268)
Melting point:		The substance / product decomposes therefore not determined.
decomposition point:	252 °C	Literature data.
Boiling point:		The substance / product decomposes.
Flash point:		not applicable, the product is a solid
Flammability:	not highly flammable	
Lower explosion limit:		(20 - 24 °C, 1013.25 hPa) (DIN EN 14034-3) The lower explosion limit of dust has been determined.
Upper explosion limit:		For solids not relevant for classification and labelling.
Autoignition:	470 °C	(VDI 2263, sheet 1, 2.6)
Vapour pressure:	< 0.0000001 hPa	(25 °C) (calculated) Literature data.
Density:	1.77 g/cm3	(20 °C) Literature data.
Bulk density:	approx. 950 kg/m3	(DIN ISO 697)
Vapour density:		The product is a non-volatile solid.
Partitioning coefficient n-octanol/water (log Pow):	-4.3	(25 °C) (measured)
Self-ignition temperature:		not self-igniting
	> 400 °C	(Regulation 440/2008/EC, A.16) No self ignition was observed up to the specified temperature.
Viscosity, dynamic:		Study scientifically not justified.
Viscosity, kinematic:		not applicable, the product is a solid
Particle size:		(measured)
Solubility in water:	108 g/l	(20 °C) Literature data.
Solubility (qualitative):		
	solvent(s): alkalies, polar solvents,	

10. Stability and Reactivity

Reactivity

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

Minimum ignition energy:
> 4 J, 1,013.25 hPa, 20 °C (DIN EN 13821)

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Hazardous reactions:
Dust explosion hazard.

Conditions to avoid

Conditions to avoid:
Avoid humidity. Avoid dust formation.

Incompatible materials

Substances to avoid:
light metals

Hazardous decomposition products

Decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity:
Of low toxicity after single ingestion. Of moderate toxicity after short-term inhalation.

Oral
Type of value: LD50
Species: rat
Value: > 2,000 - < 5,000 mg/kg (BASF-Test)

Inhalation
Type of value: LC50
Species: rat
Value: > 1 - < 5 mg/l (OECD Guideline 403)

Exposure time: 6 h

Dermal

Study scientifically not justified.

Irritation / corrosion
Assessment of irritating effects:
Not irritating to the skin. Not irritating to the eyes.

Skin

Species: rabbit
Result: non-irritant
Method: BASF-Test

Eye
Species: rabbit
Result: non-irritant
Method: BASF-Test

Sensitization

Assessment of sensitization:
Skin sensitizing effects were not observed in animal studies.
Guinea pig maximization test
Species: guinea pig
Result: Non-sensitizing.
Method: OECD Guideline 406

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No adverse effects were observed after repeated exposure in animal studies.

Genetic toxicity

Assessment of mutagenicity: In the majority of tests performed (bacteria/microorganisms/cell cultures) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity
Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity
Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Teratogenicity
Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Symptoms ofExposure

difficulty breathing, gastrointestinal complaints, irritation of the mucous membranes

Medical conditions aggravated by overexposure
Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See MSDS section 11 - Toxicological information.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish
LC50 (96 h) > 100 mg/l, Lepomis macrochirus (OPP 72-1 (EPA-Guideline), static)
Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic invertebrates
EC50 (48 h) > 100 mg/l, Daphnia magna (DIN 38412 Part 11, static)
Nominal concentration.

Aquatic plants
EC50 (72 h) > 100 mg/l (growth rate), Scenedesmus subspicatus (Directive 88/302/EEC, part C, p. 89, static)
Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity to fish
No observed effect concentration (35 d) >= 36.9 mg/l, Brachydanio rerio (OECD Guideline 210, Flow through.)
The statement of the toxic effect relates to the analytically determined concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure orcomposition.

Soil living organisms

Toxicity to soil dwelling organisms:
LC50 (14 d) 156 mg/kg, Eisenia foetida (OECD Guideline 207, artificial soil)
The product has not been tested. The statement has been derived from substances/products of a similar structure orcomposition.

Other terrestrial non-mammals
Study scientifically notjustified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
OECD Guideline 209 aquatic
activated sludge, domestic/EC20 (30 min): > 500 mg/l
Nominal concentration. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Not readily biodegradable (by OECD criteria).

Elimination information

0 - 10 % BOD of the ThOD (30 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, municipal sewage treatment plant effluent)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment of stability in water
According to structural properties, hydrolysis is not expected/probable.

Bioaccumulative potential

Assessment bioaccumulation potential
Does not accumulate in organisms.

Bioaccumulation potential
Bioconcentration factor: approx. 1.8 (28 d), Lepomis macrochirus
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Mobility in soil

Assessment transport between environmental compartments
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

Additional information

Sum parameter

Theoretical Oxygen Demand (ThOD): 731 mg/g

Add. remarks environm. fate & pathway:
Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:
Do not release untreated into natural waters. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. Do not discharge into drains/surface waters/groundwater.

Container disposal:
Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport
USDOT

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Cosmetic	TSCA, US	released / exempt
Chemical	TSCA, US	released / listed

State regulations

CA Prop. 65:
THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

NFPA Hazard codes:
Health : 1 Fire: 1 Reactivity: 0 Special:

HMIS III rating
Health: 1 Flammability: 1 Physical hazard: 0

16. Other Information

SDS Prepared by:
SDS Prepared on: 5-1-2015

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