SAFETY DATA SHEET
DISODIUM EDTA

1. PRODUCT INFORMATION AND COMPANY IDENTIFICATION

Product Name:	Disodium EDTA
INCI Name:	Disodium EDTA
CAS Number:	139-33-3
Recommended Use:	Manufacture of cosmetic products, cleaning and maintenance products.
Company:	Chemistry Connection 253 Sturgis Road, Conway, AR 72034 (501) 470-9689 contact@thechemistryconnection.com
Emergency Contact:	888-583-9689

2. HAZARD IDENTIFICATION

Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (inhal.), Category 4	H332
Specific target organ toxicity — Repeated exposure, Category 2	H373

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects
No information available.

Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

GHS07 GHS08

Signal word (CLP)	Warning
Hazard statements (CLP)	H332 - Harmful if inhaled. H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements (CLP)	P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P271 - Use only outdoors or in a well-ventilated area. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 - Call a POISON CENTRE or doctor if you feel unwell. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Other hazards
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

INCI NAME	CAS NO.	CONCENTRATION (%)
Disodium EDTA	139-33-3	99.1 - 99.2

(EC-No.) 205-358-3

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acute Tox. 4 H332
STOT RE 2 H373

Mixtures
Not applicable

4. FIRST AID MEASURES

Description of first aid measures

First-aid measures general	Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	Wash off immediately with soap and plenty of water removing at the same time all contaminated

	clothes. Wash contaminated clothing before reuse. Get medical advice if skin irritation persists.
First-aid measures after eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
First-aid measures after ingestion	Rinse mouth out with water. Call a poison center or a doctor if you feel unwell. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms/effects	Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	No information available.

Special hazards arising from the substance or mixture

Fire hazard	Thermal decomposition generates toxic vapours.

Hazardous decomposition products in case of fire
Toxic fumes may be released.

Advice for firefighters

Protection during firefighting	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures	Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Evacuate personnel to a safe area. Avoid contact with skin and eyes.

For emergency responders

Protective equipment	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Environmental precautions
Avoid release to the environment. Do not allow into drains or water courses.

Methods and material for containment and cleaning up

Methods for cleaning up	Collect spillage. Sweep or shovel spills into appropriate container for disposal. Avoid dust formation.
Other information	Dispose of materials or solid residues at an authorized site.

Reference to other sections
For further information refer to section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Avoid dust formation.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Conditions for safe storage, including any incompatibilities

Storage conditions	Store in a well-ventilated place. Keep cool.

Specific end use(s)
No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

disodium dihydrogen ethylenediaminetetraacetate	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	3 mg/m³
Long-term - local effects, inhalation	1.5 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	1.2 mg/m³
Long-term - systemic effects,oral	25 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.6 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	2.2 mg/l
PNEC aqua (marine water)	0.22 mg/l

PNEC aqua (intermittent, freshwater)	1.2 mg/l
PNEC (Soil)	
PNEC soil	0.72 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	43 mg/l

Exposure controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Hand protection:
PPE18 - Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Eye protection:
Wear safety glasses with side shields (or goggles).

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Environmental exposure controls:
Avoid release to the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid, crystalline
Colour	White.
Odour	Odorless
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	Decomposed at 252 °C
Freezing point	No data available
Boiling point	Substance decomposes before boiling.
Flash point	Not Relevant
Auto-ignition temperature	> 400 °C
Decomposition temperature	252 °C
Flammability (solid, gas)	Non flammable
Vapour pressure	2E-012 hPa at 25°C
Relative vapour density at 20°C	No data available
Relative density	No data available
Density	1.767 g/cm³ at 20°C
Solubility	Water: 108 g/l at 20°C

Log Pow	-4.3 at 25 °C / pH = 4.5
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Explosive properties	Non explosive
Oxidising properties	no oxidising properties
Explosive limits	No data available

Other information
No additional information available

10. STABILITY AND REACTIVITY

Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

Chemical stability
Stable under normal conditions.

Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

Conditions to avoid
Avoid dust formation.

Incompatible materials
Strong oxidizing agent.

Hazardous decomposition products
Ammonia. Carbon oxides. Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Inhalation: Harmful if inhaled.

Disodium EDTA (139-33-3)

LD50 oral rat	2800 mg/kg bw (male/female)
LOAEC inhalation rat	ca. 30 mg/m³ air(male) based on: act. ingr. (Na2H2EDTA)

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard	Not classified

12. ECOLOGICAL INFORMATION

Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	Not classified
Chronic aquatic toxicity	Not classified

Disodium EDTA (139-33-3)	
Short-term effects on fish	
Lepomis macrochirus freshwater static The static water acute toxicity tests followed the methods described in the EPA publication, "Methods for Acute Toxicity Tests with Fish, Macroinvertebrates, and Amphibians" (COMMITTEE ON METHODS FOR TOXICITY WITH AQUATIC ORGANISMS, 1975).	LC50 (96 h): 41 mg/L test mat. (nominal) based on: mortality (34 - 62 mg/L, very soft water) LC50 (96 h): 159 mg/L test mat. (nominal) based on: mortality (136-204 mg/L, medium hard water) LC50 (96 h): 532 mg/L test mat. (nominal) based on: mortality (473-598 mg/L, very hard water)
Lepomis macrochirus freshwater static The static water acute toxicity tests followed the methods described in the EPA publication, "Methods for Acute Toxicity Tests with Fish, Macroinvertebrates, and Amphibians" (COMMITTEE ON METHODS FOR TOXICITY WITH AQUATIC ORGANISMS, 1975).	LC50 (96 h): 121 mg/L act. ingr. (Na4EDTA) (nominal) based on: mortality (113-130, very soft water) LC50 (96 h): 792 mg/L act. ingr. (Na4EDTA) (nominal) based on: mortality (754-831, medium hard water) LC50 (96 h): 1592 mg/L act. ingr. (Na4EDTA) (nominal) based on: mortality (1493-1678, hard water)
Lepomis macrochirus freshwater static The static water acute toxicity tests followed the methods described in the EPA publication, "Methods for Acute Toxicity Tests with Fish, Macroinvertebrates, and	LC50 (96 h): 705 mg/L test mat. (nominal) based on: mortality (623-795)

Amphibians" (COMMITTEE ON METHODS FOR TOXICITY WITH AQUATIC ORGANISMS, 1975).	
Salmo gairdneri (new name: Oncorhynchus mykiss) freshwater static Method: other Fish, Acute Toxicity Test	LC100 (24 h): 860 mg/L test mat. (nominal) based on: mortality
Long-term effects on fish	
Brachydanio rerio (new name: Danio rerio) freshwater early-life stage: reproduction, (sub)lethal effects flow-through OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test)	NOEC (35 d): >= 25.7 mg/L act. ingr. (H4EDTA) (meas. (not specified))
Short-term effects on aquatic invertebrates	
Daphnia magna freshwater static DIN 38412, part 11	EC50 (48 h): 140 mg/L test mat. (nominal) based on: mobility (100-180 mg/L)
Disodium EDTA (139-33-3)	
Daphnia magna freshwater static ISO 6341 15 (Water quality - Determination of the Inhibition of the Mobility of Daphnia magna Straus (Cladocera, Crustacea))	EC50 (24 h): 610 mg/L test mat. (nominal) based on: mobility
Daphnia magna freshwater static equivalent or similar to DIN 38412, part 11	EC50 (24 h): 625 mg/L test mat. (nominal) based on: mobility
Long-term effects on aquatic invertebrates	
Daphnia magna freshwater	NOEC (21 d): 25 mg/L test mat. (nominal) based on: reproduction LOEC (21 d): 50 mg/L test mat. (nominal)

semi-static EEC Guideline XI/681/86, Draft 4: "Prolonged toxicity study with Daphnia magna: Effects on reproduction"	
Effects on algae and aquatic plants	
Pseudokirchnerella subcapitata (algae) freshwater static OECD Guideline 201 (Alga, Growth Inhibition Test) (1984)	EC50 (72 h): > 100 mg/L test mat. (nominal) based on: growth rate EC50 (72 h): > 60 mg/L test mat. (meas. (geom. mean)) based on: growth rate NOEC (72 h): 79.4 mg/L test mat. (nominal) based on: growth rate NOEC (72 h): 48.4 mg/L test mat. (meas. (geom. mean)) based on: growth rate LOEC (72 h): 99.9 mg/L test mat. (nominal) based on: growth rate LOEC (72 h): 60.6 mg/L test mat. (meas. (geom. mean)) based on: growth rate
Pseudokirchnerella subcapitata (algae) freshwater static OECD Guideline 201 (Alga, Growth Inhibition Test)	EC50 (72 h): > 1000 mg/L test mat. (nominal) based on: growth rate NOEC (72 h): 100 mg/L test mat. (nominal) based on: growth rate LOEC (72 h): 1000 mg/L test mat. (nominal) based on: growth rate EC10 (72 h): 307.63 mg/L test mat. (nominal) based on: growth rate
Scenedesmus subspicatus (new name: Desmodesmus subspicatus) (algae) freshwater static EU Method C.3 (Algal Inhibition test)	EC50 (72 h): > 100 mg/L test mat. (nominal) based on: growth rate NOEC (72 h): 100 mg/L test mat. (nominal) based on: growth rate LOEC (72 h): > 100 mg/L test mat. (nominal) based on: growth rate EC10 (72 h): > 100 mg/L test mat. (nominal) based on: growth rate
Scenedesmus subspicatus (new name: Desmodesmus subspicatus) (algae) freshwater static EEC guideline 79/831/EEC, Annexe V, part C: Methods for the determination of ecotoxicity, algae: Test of growth inhibition, May 1988	EC50 (72 h): 2.77 mg/L test mat. based on: growth rate NOEC (72 h): 0.39 mg/L test mat. based on: growth rate LOEC (72 h): 0.78 mg/L test mat. based on: growth rate EC10 (72 h): 0.7 mg/L test mat. based on: growth rate

Persistence and degradability

disodium dihydrogen ethylenediaminetetraacetate

Persistence and degradability EDTA is not readily biodegradable according to OECD

criteria.

Bioaccumulative potential
disodium dihydrogen ethylenediaminetetraacetate

Log Pow	-4.3
Bioaccumulative potential	Material does not bioaccumulate.

Mobility in soil
disodium dihydrogen ethylenediaminetetraacetate

Ecology - soil	No information available.

Results of PBT and vPvB assessment
disodium dihydrogen ethylenediaminetetraacetate
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Other adverse effects

Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.

14. TRANSPORT INFORMATION

In accordance with ADR / RID / IMDG / IATA / AND

ADR	IMDG	IATA	ADN	RID
UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

Inland waterway transport
Not applicable

Rail transport
Not applicable

Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

15. REGULATORY INFORMATION

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

EU-Regulations
No REACH Annex XVII restrictions
disodium dihydrogen ethylenediaminetetraacetate is not on the REACH Candidate List
disodium dihydrogen ethylenediaminetetraacetate is not on the REACH Annex XIV List

National regulations

Germany
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV
Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	The substance is not listed
SZW-lijst van mutagene stoffen	The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding
The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid
The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling
The substance is not listed

Denmark

Recommendations Danish Regulation	Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

International Inventories

Component	TSCA	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Disodium EDTA 139-33-3	X	X	X	X	X	X	X	X

"-" Not Listed
"X" Listed

Chemical safety assessment
A chemical safety assessment has been carried out

16. OTHER INFORMATION

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