



SAFETY DATA SHEET

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : E 10177
Product Name : EDTA ACID

Manufacturer/supplier identification

Company : NICE Chemicals (P) Ltd., Cochin, India
Tel - 0484 2800212, 2802755

Contact for information : Tel. No.- 0484 2802536 Fax : 0484 2802483
Emergency Telephone No. : 0484 2801583 Tele fax No. : 0484 2802483

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Ethylene diamine tetraacetic acid,
Ethylene dinitrilo tetra acetic acid

CAS-No : 60-00-4 EC-Index No. : -----
Molar Mass : 292.25 EC-No. : 200-449-4
Molecular Formula : $C_{10}H_{16}N_2O_8$

3. HAZARDS INDEX : Irritating to eyes. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES : After inhalation : Fresh air.
After skin contact : Wash off with plenty of water.
Remove contaminated clothing.



SAFETY DATA SHEET

Catalogue No. : **E 10177**
Product Name : **EDTA ACID**

After eye contact : Rinse out with plenty of water with the eyelid held wide open. Summon eye specialist.

After swallowing : Make victim drink plenty of water, induce vomiting, summon doctor.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water, CO₂, foam, powder

Special risks : Combustible. Danger of dust explosion. Development of hazardous combustion gases or vapours possible in event of fire.

Special protective equipment for fire fighting : Do not stay in dangerous zone without self-contained breathing apparatus.

Other information : Prevent fire-fighting water from entering surface water or groundwater.

6. ACCIDENTAL RELEASE MEASURES

Person - related precautionary measures : Avoid generation of dusts;
do not inhale dusts.

Procedures for cleaning/absorption : Take up dry. Forward for disposal.
Clean up affected area.

7. HANDLING AND STORAGE : Handling - No further requirements.

Storage - Tightly closed. Dry.

Storage temperature : No restrictions.



SAFETY DATA SHEET

Catalogue No. : **E 10177**
Product Name : **EDTA ACID**

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection : Required when dust are generated.

Eye Protection : Required

Hand Protection : Required

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Industrial hygiene : Change contaminated clothing. Wash hands after working with substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Solid
Colour : Colourless to White
Odour : Odourless
pH value at 10 g/l H₂O(23° C) : ~2.5 (slurry)
Melting temperature : 220 °C (Decomposition)
Boiling temperature : Not applicable
Ignition temperature : >200 °C (DIN 51794)
Flash Point : >100 °C c.c.
Explosion limit lower : Not applicable
upper : Not applicable
Vapour pressure (20 °C) : <0.013 hPa
Relative vapour density : Not available
Density (20 °C) : 0.86 gm/cm³
Bulk Density : ~600 kg/m³
Solubility in Water (20 °C) : ~0.5 gm/l.



SAFETY DATA SHEET

Catalogue No. : **E 10177**
Product Name : **EDTA ACID**

Water (80 ° C) : ~2.2 gm/lit. (slurry)
Organic solvents : Insoluble
Thermal decomposition : >150 ° C
Log P (oct) : -3.34
Bioconcentration factor : 19 (calculated)
0.8 - 1.9

10. STABILITY AND REACTIVITY : Conditions to be avoided : Heating
Substances to be avoided : Strong oxidizing agents
Hazardous decomposition products :
In the event of fire : Nitrous gases
Further information : Dust explosion possible.

11. TOXICOLOGICAL INFORMATION : Acute toxicity : LD₅₀ : (oral, rat) : >2000 mg/kg
L (i.p., rat) : 397 mg/kg
Subacute to chronic toxicity : Sensitization test
(guinea pig) : Negative (sodium salt)

Non carcinogenic in animal experiments.(sodium salt). The available investigational results provide no indication of any toxic effects or mutagenic properties.

No teratogenic effect in animal experiments.

Bacterial mutagenicity : Salmonella typhimurium : Negative

Ames-Test : Negative.



SAFETY DATA SHEET

Catalogue No. : **E 10177**
Product Name : **EDTA ACID**

Further toxicological information :

Skin irritation test (rabbit) : Draize test
(Skin irritation) : Irritations. (Sodium Salt).
Eye irritation test (rabbit) : Irritations.
After skin contact : Irritations
After eye contact : Irritations
After swallowing : We have no description of any toxic symptoms. Property which must be anticipated on the basis of structure - effect considerations : disturbed electrolyte balance.
No sensitizing effect (Sodium Salt).

Further data : Further hazardous properties cannot be excluded.

12. ECOLOGICAL INFORMATION

Abiotic degradation : Rapid degradation. (air)

Biologic degradation : Slightly biodegradable.
Slightly eliminable (DOC reduction <20%).

Behavior in environmental compartments : Slightly bio accumulative (BCF <30).

No bio accumulation is to be expected (log P(o/w)<1).

Ecotoxic effects : Biological effects : Harmful effect on aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Fish toxicity : *L. macrochirus* LC₅₀ : 41 mg/l./96 h (in soft water)

Daphnia toxicity :

Daphnia magna EC₅₀ : 625 mg/l./24 h (EDTA Sodium salt)

Bacterial toxicity : *Ps. putida* EC₅₀ : 28 mg/l./16 h.



SAFETY DATA SHEET

Catalogue No. : **E 10177**
Product Name : **EDTA ACID**

Maximum permissible toxic concentration :

Ps.putida EC₅ : 105 mg/lt.

Sc.quadricauda IC₅ : 11 mg/lt./8 d (EDTA Sodium Salt)

E.sulcatum EC₅ : 36 mg/lt./72 h (EDTA sodium salt).

Further ecologic data : Degradability :

BOD₅ : 0.01 mg/kg BOD<1% of ThOD/5 d

Biodegradation : 0%/28 d COD : 0.85 mg/mg

COD₂₈ : <20% of ThOD/28 d

Do not allow to enter waters, waste water, or soil !

13. DISPOSAL METHOD

Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled. There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. Approved waste disposal companies which will advise you on how to dispose of special waste.

14. TRANSPORT INFORMATION : GGVS/GGVE class : 9 Number and letter :
12c

Transport over land ADR/RID class : 9 Number and letter : 12c

ADR/RID & GGVS/GGVE : Name of material : EDTA ACID

Sea Transport IMDG : IMDG class : UN No. : Packing group :

Ems : MFAG :

Correct Technical Name : EDTA ACID



SAFETY DATA SHEET

Catalogue No. : **E 10177**
Product Name : **EDTA ACID**

Air Transport ICAO-TI

and IATA-DGR : ICAO/IATA class : 9 UN No. : 3077

Packaging group : III

Correct Technical Name : EDTA ACID

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : Xi Irritant

R-phrases : 36-52/53 Irritating to eyes. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases : 61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Water pollution class : 2 (polluting substance)

16. OTHER INFORMATION

Reason for alteration :

General update.

Change in supplement to physical/chemical parameters.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.
