

# ETHYLENE DIAMINE TETRAACETIC ACID AR/ACS

## Safety Data Sheet

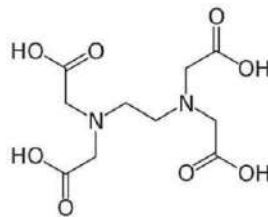
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
Trade name : ETHYLENE DIAMINE TETRAACETIC ACID AR/ACS  
EC Index-No. : 607-429-00-8  
EC-No. : 200-449-4  
CAS-No. : 60-00-4  
Product code : B-01163  
Formula : C<sub>10</sub>H<sub>16</sub>N<sub>2</sub>O<sub>8</sub>  
Chemical structure :



Synonyms : EDTA, Edathamil, Ethylenedinitrilotetraacetic acid

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only  
Use of the substance/mixture : Laboratory chemicals  
Manufacture of substances

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Bio-Chem Chemicals  
5455, Nicholson Road Science Market,  
Ambala Cantt. 133001 Haryana (India)  
+91-82952 41953  
[info@biofinechemical.com](mailto:info@biofinechemical.com) - [www.biofinechemical.com](http://www.biofinechemical.com)

#### 1.4. Emergency telephone number

Emergency number : +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 2 H319

Full text of H-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

Causes serious eye irritation.

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### 2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H319 - Causes serious eye irritation.

Precautionary statements (CLP)

: P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 - If eye irritation persists: Get medical advice/attention.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type

: Mono-constituent

Name

: ETHYLENE DIAMINE TETRAACETIC ACID

CAS-No.

: 60-00-4

EC-No.

: 200-449-4

EC Index-No.

: 607-429-00-8

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact

: Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. Wash skin with plenty of water.

First-aid measures after eye contact

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion

: Rinse mouth. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after eye contact

: Causes serious eye irritation. Eye irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media

: Dry powder. Water spray. Carbon dioxide. Foam.

Unsuitable extinguishing media

: Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire

: Toxic fumes may be released.

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### 5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes.

#### 6.1.2. For emergency responders

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

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. Collect spillage. On land, sweep or shovel into suitable containers.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapour. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Keep in fireproof place. Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

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### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

##### Hand protection:

Protective gloves

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline powder.
Molecular mass	: 292.25 g/mol
Colour	: White.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 2.5 at 10 g/l at 23 °C
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 250 °C (slow decomposition)
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: > 400 °C

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Decomposition temperature	: > 220 °C
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: 0,013 hPa at 20°C
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0,86 g/cm <sup>3</sup> at 20 °C
Solubility	: Water: 0.4 g/l at 20°C - Slightly soluble in water
Partition coefficient n-octanol/water (Log Pow)	: -3.34
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Air contact. Direct sunlight. Moisture.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
	pH: 2.5 at 10 g/l at 23 °C
Serious eye damage/irritation	: Causes serious eye irritation.
	pH: 2.5 at 10 g/l at 23 °C
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	: Not classified
Aspiration hazard	: Not classified

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Viscosity, kinematic	Not applicable

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Ecology - water	: May cause long lasting harmful effects to aquatic life.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

#### 12.2. Persistence and degradability

ETHYLENE DIAMINE TETRAACETIC ACID AR/ACS (60-00-4)	
Persistence and degradability	May cause long-term adverse effects in the environment.

#### 12.3. Bioaccumulative potential

ETHYLENE DIAMINE TETRAACETIC ACID AR/ACS (60-00-4)	
Partition coefficient n-octanol/water (Log Pow)	-3.34

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

### SECTION 14: Transport information

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

#### 14.1. UN number

UN-No. (ADR)	: Not regulated
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not regulated
UN-No. (RID)	: Not regulated

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### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated  
Proper Shipping Name (IMDG) : Not regulated  
Proper Shipping Name (IATA) : Not regulated  
Proper Shipping Name (ADN) : Not regulated  
Proper Shipping Name (RID) : Not regulated

### 14.3. Transport hazard class(es)

**ADR**  
Transport hazard class(es) (ADR) : Not regulated

**IMDG**  
Transport hazard class(es) (IMDG) : Not regulated

**IATA**  
Transport hazard class(es) (IATA) : Not regulated

**ADN**  
Transport hazard class(es) (ADN) : Not regulated

**RID**  
Transport hazard class(es) (RID) : Not regulated

### 14.4. Packing group

Packing group (ADR) : Not regulated  
Packing group (IMDG) : Not regulated  
Packing group (IATA) : Not regulated  
Packing group (ADN) : Not regulated  
Packing group (RID) : Not regulated

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

**Overland transport**  
Not regulated

**Transport by sea**  
Not regulated

**Air transport**  
Not regulated

**Inland waterway transport**  
Not regulated

**Rail transport**  
Not regulated

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

ETHYLENE DIAMINE TETRAACETIC ACID AR/ACS is not on the REACH Candidate List

ETHYLENE DIAMINE TETRAACETIC ACID AR/ACS is not on the REACH Annex XIV List

ETHYLENE DIAMINE TETRAACETIC ACID AR/ACS is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

ETHYLENE DIAMINE TETRAACETIC ACID AR/ACS is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

##### 15.1.2. National regulations

###### Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 104)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

###### 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 : The substance is not listed

giftige stoffen – Borstvoeding

NIET-limitatieve lijst van voor de voortplanting : The substance is not listed

giftige stoffen – Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting : The substance is not listed

giftige stoffen – Ontwikkeling

###### Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration



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Abbreviations and acronyms	
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.