## MATERIAL SAFETY DATA SHEET (MSDS)



# **PRODUCT NAME-** ETHYLENE DIAMINE TETRA ACETIC ACID DISODIUM SALT CAS No.: 6381-92-6

SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1. Product identifier Product form : SUBSTANCE Product name ETHYLENE DIAMINE TETRA ACETIC ACID DISODIUM SALT Type of product : BUFFER Product Grades (Applicable) E0024A (Pack size(s) :- 0.5KG, 1KG, 5KG, 25KG E0024L (Pack size(s) :- 0.5KG, 1KG, 5KG, 25KG E0024H (Pack size(s) :- 0.5KG, 1KG Product Code : E0024 CAS No 6381-92-6 Formula : C10H14N2Na2O8 · 2H2O 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. Relevant identified uses : Industrial For professional use only 1.2.2. Uses advised against No additional information available : 1.3. Details of the supplier of the safety data sheet **RYZE CHEMIE** W-68, Mankivli MIDC Badlapur (E), Thane, Maharashtra-421503 www.ryzechemie.com 1.4. Emergency Telephone Number +91-99-3006-04-04 ÷ **SECTION 2: Hazards Identification** 

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

Classification according to Regulation (EC) No. 1272/2008 [CLP] Not classified

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

#### 2.2. Label Elements

#### No labelling applicable

#### 2.3. Other hazards

No additional information available

#### **SECTION 3: Composition/information on ingredients**

| 3.1. Substance |  |
|----------------|--|
| Name           | ETHYLENE DIAMINE TETRA ACETIC ACID DISODIUM SALT |
| CAS-No.        | 6381-92-6  |
| EC-No          | NA   |
| EC Index-No.   | NA   |

#### 3.2. Mixture

Not applicable

| SECTION 4: : First aid measures        |   |
|--|---|
|  |   |
| 4.1. Description of first aid measures |   |
| First-aid measures general             | <ul> <li>Remove person to fresh air and keep comfortable for<br/>breathing. Allow affected person to breathe fresh air.</li> <li>Allow the victim to rest.</li> </ul>           |
| First-aid measures after inhalation    | <ul> <li>Wash with plenty of water/ Wash contaminated clothing<br/>before reuse. Wash skin with plenty of water.</li> </ul>   |
| First-aid measures after skin contact  | breathing. Immediately call a POISON CENTER/doctor.   |
| First-aid measures after eye contact   | <ul> <li>Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>Get medical advice/attention.</li> </ul> |
| First-aid measures after ingestion     | <ul> <li>Rinse mouth. Do not induce vomiting. Get medical advice/<br/>attention. Call a poison center or a doctor if you feel<br/>unwell.</li> </ul>                            |

| 4.2. Most important symptoms and effects, both acute and delayed |   |                |
|--|---|----------------|
| Symptoms/effects   | : | Not applicable |
| SymptoSymptoms/effects after inhalation                          | : | Not applicable |
| Symptoms/effects after skin contact                              |   | Not applicable |
| Symptoms/effects after ingestion                                 |   | Not applicable |
| SymptoSymptoms/effects after eye contact                         | : | Not applicable |

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

Treat symptomatically

#### 5.1. Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media : Water spray. Dry powder. Carbon dioxide. Foam.

: Do not use a heavy water stream.

| 5.2. Special hazards arising from the subst      | ance or mixture   |
|--|---|
| Fire hazard                                      | : No additional information available.  |
| Explosion hazard                                 | <ul> <li>No additional information available.</li> </ul>  |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released.  |
| 5.3. Advice for firefighters                     |   |
| Protection during firefighting                   | Do not enter fire area without proper protective<br>equipment,<br>including respiratory protection. Do not attempt to take<br>action without suitable protective equipment.<br>Self-contained breathing apparatus. Complete protective<br>clothing. |
| SECTION 6: Accidental release measu              | res   |
| 6.1. Personal precautions, protective equip      | mont and omorgoney procedures   |
| General measures                                 | : Remove ignition sources. Use special care to avoid static   |
|  | electric charges. No open flames. No smoking.   |
| 6.1.1. For non-emergency personnel               |   |
| Emergency procedures                             | : Ventilate spillage area. Evacuate unnecessary personnel.  |
| 6.1.2. For emergency responders                  |   |
| Protective equipment                             | <ul> <li>Do not attempt to take action without suitable protective<br/>equipment. Use personal protective equipment as<br/>required.</li> <li>For further information refer to section 8: "Exposure<br/>controls/personal protection".</li> </ul>   |
| Emergency procedures                             | : Ventilate area.   |
| 6.2. Environmental precautions                   |   |
| Avoid release to the environment.                |   |
| 6.3. Methods and material for containment        | and cleaning up   |
|  | Mechanically recover the product. Collect spillage. On land,  |

| 0.5. Methods and material for containment and |   |   |
|---|---|---|
| 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  |   |
| Additional hazards when processed : | No additional information available.  |
| Precautions for safe handling :     | Ensure good ventilation of the work station. Wear personal<br>protective equipment. Avoid contact with skin and eyes. Do<br>not<br>breathe vapours. Provide good ventilation in process area to<br>prevent formation of vapour. |
| Hygiene measures :                  | Wash hands and other exposed areas with mild soap and   |

water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

| 7.2. Conditions for safe storage, including any incompatibilities |   |   |  |
|---|---|---|--|
| Technical measures  | : | No additional information available.                      |  |
| Storage conditions  | : | Keep container tightly closed. Store in a well-ventilated |  |
|   |   | place. Keep cool.   |  |
| Packaging materials   | : | No additional information available.                      |  |

#### 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

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 |  |
|------------------------|--|
|------------------------|--|

Hand protection Eye protection Skin and body protection Respiratory protection : Protective gloves

: Chemical goggles or face shield

: Wear fire/flame resistant/retardant clothing

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

#### **SECTION 9: Physical and chemical properties**

| 9.1. Information on basic physical and chemical properties |  |  |  |
|--|--|--|--|
| Physical state   | : Solid                                |  |  |
| Appearance   | Crystalline powder.                    |  |  |
| Molecular mass   | : 372.24 g/mol                         |  |  |
| Colour   | : White.                               |  |  |
| Odour  | : Odourless.                           |  |  |
| Odour threshold  | : No data available                    |  |  |
| рН   | : 4 – 5 (5% Solution in water at 25°C) |  |  |
| pH solution concentration                                  | : No data available                    |  |  |
| Relative evaporation rate                                  | : No data available                    |  |  |

| Freezing point:No data availableBoiling point:No data availableFlash point:> 100 °C |
|---|
|   |
| Flash point:> 100 °C  |
|   |
| Auto-ignition temperature : > 252 °C  |
| Decomposition temperature : No data available                                       |
| Flammability (solid, gas) : No data available                                       |
| Vapour pressure : No data available   |
| Relative vapour density at 20 °C : No data available                                |
| Relative density : No data available  |
| Density : No data available   |
| Relative gas density : No data available  |
| Solubility : Water: 100 g/l at 20 °C  |
| Partition coefficient n-octanol/water (Log Pow) : No data available                 |
| Viscosity, kinematic : No data available  |
| Viscosity, dynamic : No data available  |
| Explosive properties : No data available  |
| Oxidising properties : No data available  |
| Explosive limits : No data available  |

#### 9.2. Other information

| 9.2.1. Information with regard to physical hazard classes |          |                               |  |  |
|---|----------|-------------------------------|--|--|
| Explosion limits  | : No add | itional information available |  |  |
| 9.2.2. Other safety characteristics                       |          |                               |  |  |
| Relative evaporation rate                                 | : No add | itional information available |  |  |
| Miscibility   | : No add | itional information available |  |  |
| Refractive index  | : No add | itional 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

Direct sunlight. Extremely high or low temperatures.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. fume.

#### **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                  | : pH: 4 – 5 (5% Solution in water at 25°C) |
| Serious eye damage/irritation              | : pH: 4 – 5 (5% Solution in water at 25°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                           |
| Potential adverse human health             | : Not classified                           |
| effects and symptoms                       |  |

#### **SECTION 12: Ecological information**

| 12.1. Toxicity   |   |
|--|---|
| Ecology - general  | <ul> <li>The product is not considered harmful to aquatic organisms<br/>nor to cause long-term adverse effects in the environment.</li> </ul> |
| Ecology - Water  | No additional information available   |
| Hazardous to the aquatic environment, short–term(acute)      | : No additional information available   |
| Hazardous to the aquatic environment,<br>long–term (chronic) | : No additional information available   |

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#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 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

#### Sewage disposal recommendations

Product/Packaging disposal recommendations

- Dispose of contents/container in accordance with licensed collector's sorting instructions. 2
  - No additional information available

| Additional information                           | : | Dispose of contents/container to a licensed hazardous<br>-waste disposal contractor or collection site except for<br>empty<br>clean containers which can be disposed of as nonhazardous<br>waste. |
|--|---|---|
| SECTION 14: Transport information                |   |   |
| In accordance with ADR / RID / IMDG / IATA / ADN |   |   |
| 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   |
| 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   |
| Transport document description (ADR)             | : | Not regulated   |
| Transport document description (IMDG)            | : | Not regulated   |
| Transport document description (IATA)            |   | Not regulated   |
| Transport document description (ADN)             |   | Not regulated   |
| Transport document description (RID)             | : | Not regulated   |
| 14.3. Transport hazard class(es)                 |   |   |
| ADR  |   |   |
| Transport hazard class(es) (ADR)                 | : | Not regulated   |
| Danger labels (ADR)                              | : | Not regulated   |
| IMDG   |   |   |
| Transport hazard class(es) (IMDG)                | : | Not regulated   |
| Danger labels (IMDG)                             | : | Not regulated   |
| ΙΑΤΑ   |   |   |
| Transport hazard class(es) (IATA)                | : | Not regulated   |
| Hazard labels (IATA)                             | : | Not regulated   |
| ADN  |   |   |
| Transport hazard class(es) (ADN)                 | : | Not regulated   |
| Hazard labels (ADN)                              | : | Not regulated   |
| RID  |   |   |
| Transport hazard class(es) (RID)                 |   |   |
|  | • | Not regulated   |
| Hazard labels (RID)                              | : | Not regulated   |
|  |   |   |

| 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**

| Classification code (ADR)  | : | Not regulated |
|--|---|---------------|
| Limited quantities (ADR)   | : | Not regulated |
| Excepted quantities (ADR)  | : | Not regulated |
| Packing instructions (ADR)   | : | Not regulated |
| Special packing provisions (ADR)   | : | Not regulated |
| Mixed packing provisions (ADR)   | : | Not regulated |
| Portable tank and bulk container instructions<br>(ADR)<br>Portable tank and bulk container special | : | Not regulated |
| provisions (ADR)   | : | Not regulated |
| Tank code (ADR)  | : | Not regulated |
| Vehicle for tank carriage  | : | Not regulated |
| Transport category (ADR)   | : | Not regulated |
| Special provisions for carriage - Bulk (ADR)   | : | Not regulated |
| Special provisions for carriage - Loading,<br>unloading<br>and handling (ADR)                      | : | Not regulated |
| Special provisions for carriage - Operation (ADR)  | : | Not regulated |
| Hazard identification number (Kemler No.)  | : | Not regulated |
| Orange plates  | : | Not regulated |
| Tunnel restriction code (ADR)  | : | Not regulated |
| EAC code   | : | Not regulated |
| - Transport by sea   |   |               |
| Limited quantities (IMDG)  | : | Not regulated |
| Excepted quantities (IMDG)   | : | Not regulated |
| Packing instructions (IMDG)  | : | Not regulated |
| IBC packing instructions (IMDG)  | : | Not regulated |
| Tank instructions (IMDG)   | : | Not regulated |
| Tank special provisions (IMDG)   | : | Not regulated |
| EmS-No. (Fire)   | : | Not regulated |
|  |   |               |

| EmS-No. (Spillage)<br>Stowage category (IMDG)<br>Properties and observations (IMDG)<br>MFAG-No<br><b>- Air transport</b> | : | Not regulated<br>Not regulated<br>Not regulated<br>Not regulated |
|--|---|--|
| PCA Excepted quantities (IATA)   | : | Not regulated  |
| PCA Limited quantities (IATA)  | : | Not regulated  |
| PCA limited quantity max net quantity (IATA)   | : | Not regulated  |
| PCA packing instructions (IATA)  | : | Not regulated  |
| PCA max net quantity (IATA)  | : | Not regulated  |
| CAO packing instructions (IATA)  | : | Not regulated  |
| CAO max net quantity (IATA)  | : | Not regulated  |
| ERG code (IATA)  | : | Not regulated  |
| <ul> <li>Inland waterway transport</li> </ul>  |   |  |
| Classification code (ADN)  | : | Not regulated  |
| Limited quantities (ADN)   | : | Not regulated  |
| Excepted quantities (ADN)  | : | Not regulated  |
| Equipment required (ADN)   | : | Not regulated  |
| Special provisions (AND)   | : | Not regulated  |
| Number of blue cones/lights (ADN)  | : | Not regulated  |
| - Rail transport   |   |  |
| Classification code (RID)  | : | Not regulated  |
| Limited quantities (RID)   | : | Not regulated  |
| Excepted quantities (RID)  | : | Not regulated  |
| Packing instructions (RID)   | : | Not regulated  |
| Mixed packing provisions (RID)   | : | Not regulated  |
| Special provisions (RID)   |   | Not regulated  |
| Portable tank and bulk container instructions  | • | Not regulated  |
| (RID)  | : | Not regulated  |
| Portable tank and bulk container special<br>provisions (RID)   | : | Not regulated  |
| Tank codes for RID tanks (RID)   | : | Not regulated  |
| Transport category (RID)   | : | Not regulated  |
| Colis express (express parcels) (RID)  | : | Not regulated  |
| Hazard identification number (RID)   | : | Not regulated  |
|  |   |  |

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable

#### **SECTION 15:** Regulatory information

## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture 15.1.1. EU-Regulations

#### **REACH Annex XVII (Restriction List)**

No REACH Annex XVII restrictions

ETHYLENE DIAMINE TETRA ACETIC ACID DISODIUM SALT EXTRA PURE is not on the REACH Candidate List ETHYLENE DIAMINE TETRA ACETIC ACID DISODIUM SALT EXTRA PURE is not on the REACH Annex XIV List ETHYLENE DIAMINE TETRA ACETIC ACID DISODIUM SALT EXTRA PURE 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 TETRA ACETIC ACID DISODIUM SALT EXTRA PURE 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

#### **REACH Candidate List (SVHC)**

Not applicable

#### **PIC Regulation (Prior Informed Consent)**

Not applicable

POP Regulation (Persistent Organic Pollutants) Not applicable

## Ozone Regulation (1005/2009)

Not applicable

#### Explosives Precursors Regulation (2019/1148) Not applicable

### Drug Precursors Regulation (273/2004)

Not applicable

#### 15.1.2. National regulations

#### Germany

| : | Water hazard class (WGK) 1, slightly hazardous to water<br>(Classification according to AwSV, Annex 1)<br>Is not subject of the 12. BImSchV (Hazardous Incident<br>Ordinance) |
|---|---|
|   |   |
| : | The substance is not listed   |
| : | The substance is not listed   |
| : | The substance is not listed   |
| : | The substance is not listed   |
| : | The substance is not listed   |
|   |   |
| : | Emergency management guidelines for the storage of<br>flammable liquids must be followed  |
| : | 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 a | Abbreviations and acronyms   |  |  |
|---------------------|--|--|--|
| ADN                 | European Agreement concerning the International Carriage of Dangerous Goods by Inland<br>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  |  |  |
| 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  |  |  |
| РВТ                 | Persistent Bioaccumulative Toxic   |  |  |
| PNEC                | Predicted No-Effect Concentration  |  |  |
| RID                 | Regulations concerning the International Carriage of Dangerous Goods by Rail                       |  |  |

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.