Section 1. Product and Company Identification

Product Name Disodium EDTA
CAS Number 60-00-4

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801
(914) 654-6800 **(914) 654-6899**
parchem.com **info@parchem.com**

EMERGENCY RESPONSE NUMBER
CHEMTEL
Toll Free US & Canada: 1 (800) 255-3924
All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture
Hazard classification: This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.
Acute toxicity - Category 4: Inhalation
Eye irritation: Category 2A

GHS Label Elements
Pictograms:

Signal word: WARNING

Hazard and precautionary statements
Hazards
Causes serious eye irritation.
Harmful if inhaled.

Precautionary statements
Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear eye protection/face protection.

Response
If Inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

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/attention.

Other hazards: No data available

Section 3. Composition / Information on Ingredients

Common Name
Synonym(s) Ethylenediamine Tetraacetic Acid; Edetic acid
CAS Number 60-00-4

COMPONENT	CAS NUMBER	CONCENTRATION
Ethylenediamine Tetraacetic Acid	60-00-4	99.0%
Water	7732-18-5	1.0%

Section 4. First Aid Measures

Description of first-aid measures
General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Inhalation: Move person to fresh air; if effects occur, consult a physician.
Skin contact: Wash off with plenty of water.
Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1 - 2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Suitable emergency eye wash facility should be available in work area.
Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed
Notes to physician: If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5. Firefighting Measures

Suitable extinguishing media: Water. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.

Unsuitable extinguishing media: no data available

Special hazards arising from the substance or mixture
Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Carbon monoxide. Carbon dioxide. Ammonia.
Unusual Fire and Explosion Hazards: Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, do not permit dust to accumulate.

Advice for firefighters
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires.
Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Spilled material may cause a slipping hazard. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Sweep up. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

Section 7. Handling and Storage

Precautions for safe handling: Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid breathing dust. Use with adequate ventilation. Keep container closed. Keep away from heat, sparks and flame. Good housekeeping and controlling of dusts are necessary for safe handling of product. See Section 8, Exposure Controls and Personal Protection.

Conditions for safe storage: Store in accordance with good manufacturing practices. Minimize sources of ignition, such as static build-up, heat, spark or flame. Do not store in: Opened or unlabeled containers. Zinc. Aluminum and its alloys. Carbon steel. Copper. Copper alloys. Galvanized containers. Nickel. Store in original unopened container. Additional storage and handling information on this product may be obtained by calling your sales or customer service contact. See Section 10 for more specific information.

Storage stability
Shelf life: Use within 24 Month
Storage temperature: -18 to +49°C (0 - 120°F)

Section 8. Exposure Controls / Personal Protection

Control parameters: None established

Exposure controls
Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposures limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Individual protection measures
Eye/face protection: Use chemical goggles.

Skin protection
Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.
The following should be effective types of air-purifying respirators: Particulate filter.

Section 9. Physical and Chemical Properties

Appearance: White solid

Odor: Mild
Odor Threshold: No test data available
pH: Not applicable
Melting point/range: > 220°C (> 428°F) Decomposes (Measured)
Freezing point: > 220°C (> 428°F) Decomposes (Measured)
Boiling point (760 mmHg): Not applicable
Flash point (Closed cup): Not applicable to solids
Evaporation Rate (Butyl Acetate = 1): Not applicable to solids
Flammability (solid, gas): Non-flammable
Lower explosion limit: Not applicable to solids
Upper explosion limit: Not applicable to solids
Vapor Pressure: < 0.01 mmHg (Literature)
Relative Vapor Density (air = 1): No test data available
Relative Density (water = 1): Not applicable to solids
Water solubility: 400 mg/l at 20°C (68°F) (Measured)
Partition coefficient (n-Octanol/Water): log Pow: -3.86 (Estimated)
Auto-ignition temperature: Not applicable
Decomposition temperature: No test data available
Kinematic Viscosity: Not applicable
Explosive properties: No data available
Oxidizing properties: No data available
Solid Density: 1.46 g/cm^3 at 20°C (Measured)
Bulk density: 54 lb/ft^3 (Literature)
Molecular weight: 292.24 g/mol (Literature)

Section 10. Stability and Reactivity

Reactivity: No data available
Chemical stability: Thermally stable at typical use temperatures.
Possibility of hazardous reactions: Polymerization will not occur.
Conditions to avoid: Exposure to elevated temperatures can cause product to decompose. Avoid static discharge.
Incompatible materials: Avoid contact with oxidizing materials. Avoid contact with: Strong bases. Avoid contact with metals such as: Carbon steel.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Ammonia. Nitrogen oxides.

Section 11. Toxicological Information

Acute toxicity
Acute oral toxicity: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may

cause injury. LD50, Rat, male and female, 4,500 mg/kg
Acute dermal toxicity: Prolonged skin contact is unlikely to result in absorption of harmful amounts. The dermal LD50 has not been determined.
Acute inhalation toxicity: Prolonged excessive exposure to dust may cause adverse effects. For narcotic effects: No relevant data found. LC50, Rat, male, 6 Hour, dust/mist, > 1 mg/

Skin corrosion/irritation: Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. May cause more severe response if skin is abraded (scratched or cut). May cause more severe response on covered skin (under clothing, gloves). Not classified as corrosive to the skin according to DOT guidelines.

Serious eye damage/eye irritation: May cause moderate eye irritation. May cause slight corneal injury. Effects may be slow to heal

Sensitization: For similar materials, did not cause allergic skin reactions when tested in guinea pigs.
For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure): Evaluation of available data suggests that this material is not an STOT-SE toxicant.
Specific Target Organ Systemic Toxicity (Repeated Exposure): Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Carcinogenicity: The trisodium salt of EDTA did not cause cancer in laboratory animals.
Teratogenicity: EDTA and its sodium salts have been reported to cause birth defects in laboratory animals only at exaggerated doses that were toxic to the mother. These effects are likely associated with zinc deficiency due to chelation.
Reproductive toxicity: Limited data in laboratory animals suggest that the material does not affect reproduction.

Mutagenicity: Most data indicate that EDTA and its salts are not mutagenic. Minimal effects reported are likely due to trace metal deficiencies resulting from chelating by EDTA.
Genetic Toxicity in vivo: Mouse Bone Marrow Micronucleus Test Mouse negative
Result: negative

Aspiration Hazard: Based on physical properties, not likely to be an aspiration hazard.

Components influencing toxicology: Ethylenediamine tetraacetic acid
Acute dermal toxicity: The dermal LD50 has not been determined

Section 12. Ecological Information

Toxicity
Acute toxicity to fish: Material is practically non-toxic to aquatic organisms on an acute basis

(LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50 Fish: 96 Hour, 1,000 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
EC50 Daphnia magna (Water flea): Static test, 48 Hour, 113 mg/l, OECD Test Guideline 202 or Equivalent

Persistence and degradability
Biodegradability: Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability).
10-day Window: Not applicable
Biodegradation: 37 %
Exposure time: 14 d
Method: OECD Test Guideline 302B or Equivalent
10-day Window: Fail
Biodegradation: 0 %
Exposure time: 30 d
Method: OECD Test Guideline 301D or Equivalent

Theoretical Oxygen Demand: 1.37 mg/mg

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitizer: OH radicals
Atmospheric half-life: 2.12 Hour
Method: Estimated.

Bioaccumulative potential
Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient (n-Octanol/Water): log Pow: -3.86 at 25°C (Estimated)
Bioconcentration factor (BCF): 1.1 Fish. 28 d (Measured)

Mobility in soil: Potential for mobility in soil is high (Koc between 50 and 150).
Partition coefficient (Koc): 98

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT (US): Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

Section 15. Regulatory Information

OSHA Hazard Communication Standard: This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312: This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Pennsylvania Worker and Community Right-To-Know Act:
To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):
This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute

United States TSCA Inventory (TSCA): All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory

NFPA
Health: 1
Flammability: 1
Reactivity: 0

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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