

**1. Identification**

**Product identifier** Brandt Sequestar 14% Zn  
**Other means of identification** Not available.  
**Synonym(s)** DISODIUM ZINC EDTA  
**Recommended use** Agriculture - Chelated Micronutrient - Refer to product label for application instructions  
**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information****Manufacturer**

**Company name** Brandt Consolidated, Inc.  
**Address** 2935 South Koke Mill Road  
Springfield, IL 62711 US  
US  
**Telephone** 1-217-547-5800  
**Website** www.brandt.co  
**E-mail** msds@brandt.co  
**Contact person** EH&S / Regulatory Department  
**Emergency phone number** CHEMTREC (24 hours): 1-800-424-3900

**2. Hazard(s) identification**

**Physical hazards** Not classified.  
**Health hazards** Not classified.  
**OSHA defined hazards** Not classified.

**Label elements**

**Hazard symbol** None.  
**Signal word** None.  
**Hazard statement** The mixture does not meet the criteria for classification.  
**Precautionary statement**  
**Prevention** Observe good industrial hygiene practices.  
**Response** Wash hands after handling.  
**Storage** Store away from incompatible materials.  
**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** Not classified.

**Supplemental information**

Not applicable.

**3. Composition/information on ingredients****Mixtures**

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**4. First-aid measures**

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.  
**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.  
**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.  
**Ingestion** Rinse mouth. Get medical attention if symptoms occur.  
**Most important symptoms/effects, acute and delayed** Direct contact with eyes may cause temporary irritation.  
**Indication of immediate medical attention and special treatment needed** Treat symptomatically.

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

**Suitable extinguishing media** Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire-fighting equipment/instructions** In the event of fire, cool tanks with water spray.

**Specific methods** Cool containers exposed to flames with water until well after the fire is out.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep out of low areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the MSDS.

**Methods and materials for containment and cleaning up** Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the MSDS.

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling** Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the MSDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### U.S. - OSHA

| Material                                    | Type | Value                | Form                      |
|---|------|----------------------|---------------------------|
| Brandt Sequestar 14% Zn<br>(CAS 14025-21-9) | TWA  | 5 mg/m <sup>3</sup>  | DUST: Respirable fraction |
|   |      | 15 mg/m <sup>3</sup> | DUST: Total dust          |

#### ACGIH

| Material                                    | Type | Value                | Form                       |
|---|------|----------------------|----------------------------|
| Brandt Sequestar 14% Zn<br>(CAS 14025-21-9) | TWA  | 3 mg/m <sup>3</sup>  | DUST: Respirable particles |
|   |      | 10 mg/m <sup>3</sup> | DUST: Inhalable particles  |

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** If contact is likely, safety glasses with side shields are recommended.

#### Skin protection

**Hand protection** For prolonged or repeated skin contact use suitable protective gloves.

**Other** Wear suitable protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Solid.

**Form** Solid. Dry flowable granules.

|   |   |
|---|---|
| <b>Color</b>  | White   |
| <b>Odor</b>   | Odorless.                                       |
| <b>Odor threshold</b>                               | Not available.                                  |
| <b>pH</b>   | 5 - 9   |
| <b>Salt-Out / Crystallization Temp</b>              | Not available.                                  |
| <b>Melting point/freezing point</b>                 | Not available.                                  |
| <b>Initial boiling point and boiling range</b>      | Not available.                                  |
| <b>Flash point</b>                                  | Not available.                                  |
| <b>Evaporation rate</b>                             | Not available.                                  |
| <b>Flammability (solid, gas)</b>                    | Not available.                                  |
| <b>Upper/lower flammability or explosive limits</b> |   |
| <b>Flammability limit - lower (%)</b>               | Not available.                                  |
| <b>Flammability limit - upper (%)</b>               | Not available.                                  |
| <b>Explosive limit - lower (%)</b>                  | Not available.                                  |
| <b>Explosive limit - upper (%)</b>                  | Not available.                                  |
| <b>Vapor pressure</b>                               | Not available.                                  |
| <b>Vapor density</b>                                | Not available.                                  |
| <b>Relative density</b>                             | Not available.                                  |
| <b>Solubility(ies)</b>                              | 300 g/l Approximate                             |
| <b>Partition coefficient (n-octanol/water)</b>      | -8.8  |
| <b>Auto-ignition temperature</b>                    | > 986 °F (> 530 °C)                             |
| <b>Decomposition temperature</b>                    | Not available.                                  |
| <b>Viscosity</b>                                    | Not available.                                  |
| <b>Other information</b>                            |   |
| <b>Bulk density</b>                                 | 650 - 900 kg/m3                                 |
| <b>Particle size</b>                                | 123.66 µm D10<br>209.67 µm D50<br>333.51 µm D90 |
| <b>pH in aqueous solution</b>                       | 6 - 8 2% Solution                               |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.   |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.                                   |
| <b>Conditions to avoid</b>                | Contact with incompatible materials.  |
| <b>Incompatible materials</b>             | Strong oxidizing agents.  |
| <b>Hazardous decomposition products</b>   | No hazardous decomposition products are known.  |

## 11. Toxicological information

### Information on likely routes of exposure

|   |  |
|---|--|
| <b>Ingestion</b>  | Not available.   |
| <b>Inhalation</b>   | Due to lack of data the classification is not possible.  |
| <b>Skin contact</b>   | Due to lack of data the classification is not possible.  |
| <b>Eye contact</b>  | Due to lack of data the classification is not possible.  |
| <b>Symptoms related to the physical, chemical and toxicological characteristics</b> | Direct contact with eyes may cause temporary irritation. |

## Information on toxicological effects

### Acute toxicity

| Product                                  | Species | Test Results |
|--|---------|--------------|
| Brandt Sequestar 14% Zn (CAS 14025-21-9) |         |              |
| <b>Acute</b>                             |         |              |
| <i>Oral</i>                              |         |              |
| LD50                                     | Rat     | > 2000 mg/kg |

\* Estimates for product may be based on additional component data not shown.

|  |  |
|--|--|
| <b>Skin corrosion/irritation</b>                           | Due to lack of data the classification is not possible.  |
| <b>Irritation Corrosion - Skin</b><br>Result: non-irritant |  |
| <b>Serious eye damage/eye irritation</b>                   | Due to lack of data the classification is not possible.  |
| <b>Respiratory sensitization</b>                           | Due to lack of data the classification is not possible.  |
| <b>Skin sensitization</b>                                  | Due to lack of data the classification is not possible.  |
| <b>Germ cell mutagenicity</b>                              | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| <b>Carcinogenicity</b>                                     | Due to lack of data the classification is not possible.  |
| <b>Reproductive toxicity</b>                               | Due to lack of data the classification is not possible.  |
| <b>Specific target organ toxicity - single exposure</b>    | Due to lack of data the classification is not possible.  |
| <b>Specific target organ toxicity - repeated exposure</b>  | Due to lack of data the classification is not possible.  |
| <b>Aspiration hazard</b>                                   | Due to lack of data the classification is not possible.  |
| <b>Further information</b>                                 | This product has no known adverse effect on human health.  |

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Product                                  | Species | Test Results                  |
|--|---------|-------------------------------|
| Brandt Sequestar 14% Zn (CAS 14025-21-9) |         |                               |
| Fish                                     | LC50    | Fish                          |
|  |         | 500 mg/l, 96 hours, estimated |

\* Estimates for product may be based on additional component data not shown.

|  |   |
|--|---|
| <b>Persistence and degradability</b>                               | No data is available on the degradability of this product.  |
| <b>Bioaccumulative potential</b>                                   | Not available.  |
| <b>Partition coefficient n-octanol / water (log Kow)</b><br>-8.841 |   |
| <b>Mobility in soil</b>  | Not available.  |
| <b>Other adverse effects</b>                                       | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

## 13. Disposal considerations

|  |  |
|--|--|
| <b>Disposal instructions</b>                 | Collect and reclaim or dispose in sealed containers at licensed waste disposal site.   |
| <b>Hazardous waste code</b>                  | The waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Waste from residues / unused products</b> | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| <b>Contaminated packaging</b>                | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.       |

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**15. Regulatory information****US federal regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

|                          |   |
|--------------------------|---|
| <b>Hazard categories</b> | Immediate Hazard - No<br>Delayed Hazard - No<br>Fire Hazard - Yes<br>Pressure Hazard - No<br>Reactivity Hazard - No |
|--------------------------|---|

|   |    |
|---|----|
| <b>SARA 302 Extremely hazardous substance</b> | No |
|---|----|

|  |    |
|--|----|
| <b>SARA 311/312 Hazardous chemical</b> | No |
|--|----|

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

|                                       |                |
|---------------------------------------|----------------|
| <b>Safe Drinking Water Act (SDWA)</b> | Not regulated. |
|---------------------------------------|----------------|

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Not listed.

|   |                |
|---|----------------|
| <b>Food and Drug Administration (FDA)</b> | Not regulated. |
|---|----------------|

**US state regulations****US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

Not regulated.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**International Inventories**

| Country(s) or region | Inventory name   | On inventory (yes/no)* |
|----------------------|--|------------------------|
| Australia            | Australian Inventory of Chemical Substances (AICS)                     | Yes                    |
| Canada               | Domestic Substances List (DSL)   | Yes                    |
| Canada               | Non-Domestic Substances List (NDSL)                                    | No                     |
| China                | Inventory of Existing Chemical Substances in China (IECSC)             | Yes                    |
| Europe               | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |
| Europe               | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                | Inventory of Existing and New Chemical Substances (ENCS)               | No                     |
| Korea                | Existing Chemicals List (ECL)  | No                     |

| Country(s) or region        | Inventory name  | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| New Zealand                 | New Zealand Inventory   | Yes                    |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No                     |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                     | Yes                    |

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 05-03-2013

**Version #** 01

**Further information** Not available.

**Disclaimer** While the information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or information set forth, or that the products, or information may be used without infringing the intellectual property rights of others. In no case shall the information provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the information furnished by our company hereunder are given gratis and we assume no obligation or liability for the information given or results obtained, all such being given and accepted at your risk.