

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. **Product identifier:** Silver Ionic Strength Adjustment Buffer (ISAB) 500ml - Product Code: 30308

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

Use of substance / mixture: PC21: Laboratory chemicals.

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

Company name: EDT DirectiON Ltd, The Old Silo Store, St. Radigund's Abbey Farm, Dover, CT15 7DL UK

Tel: +44(0)1304 829960

Email: Info@edt.co.uk

1.4. **Emergency telephone number -Emergency tel:** +44(0)1304 829960

Section 2: Composition/information on ingredients

* **Chemical characterization**

* **Description:** Sodium Nitrate (4M) in de-ionised water.

* **Additional information:** For the wording of the listed risk phrases refer to section 16.

Section 3: Hazards identification

* **Hazard description:** Clear liquid, no odor. HMIS (0 to 4) WARNING! Strong oxidizing agent and slightly toxic by ingestion.

* **Information concerning to particular hazards to man and environment:** Target organs: Red blood cells.

* **Classification system:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Section 4: First-aid measures

* **General information:** Always seek professional medical attention after first aid measures are provided.

* **After inhalation:** Remove to fresh air. If not breathing, give artificial respiration.

* **After skin contact:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.

* **After eye contact:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.

* **After swallowing:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.

Section 5: Fire-fighting measures

Oxidizer. When heated to decomposition, emits acrid fumes of Nox (Nitrous Oxides).

* **Suitable extinguishing agents:** Use foam or dry chemical to extinguish fire.

* **Protective equipment:** Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. No sensitive to static discharge.

Section 6: Accidental release measures

* **Person-related safety precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

* **Measures for environmental protection:**

* **Measures for cleaning/collecting:** Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See section 13 or disposal formaaation.

* **Additional information:**

Section 7: Handling and storage

- * **Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling. Shock and friction may cause material to explode (only applies to crystalline source material).
- * **Information for safe handling:** No special measures required.
- * **Information about fire - and explosion protection:** See item 5.
- * **Storage:** Store in Oxidizer Storage Area [Yellow Storage] with other oxidizers and away from any combustible materials. Store in a cool, dry, well ventilated, locked store room away from incompatible materials.
- * **Requirements to be met by storerooms and receptacles:** No special requirements.
- * **Information about storage in one common storage facility:** Not required.
- * **Further information about storage conditions:** None.

Section 8: Exposure controls/personal protection

- * **Ingredients with limit values that require monitoring at the workplace:**
- * **Additional information:**
- * **Personal protective equipment:** Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons.
- * **General protective and hygienic measures:** Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower and fire extinguishers readily available. Wash hands thoroughly after handling material and before eating or drinking.
- * **Protection of hands:** The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- * **Material of gloves:** The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
- * **Penetration time of glove material:** The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- * **Eye protection:** Not required.

Section 9: Physical and chemical properties*** General Information**

Form:	Liquid
Colour:	Colourless
Odour:	Odourless

*** Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

* **Flash point:** Not applicable.

* **Self-igniting:** Product is not selfigniting.

* **Danger of explosion:** Product does not present an explosion hazard.

* **Density at 20°C:** 1.00 g/cm³.

* **Solubility/ miscibility with water:** Soluble.

* **pH-value at 20°C:** Undetermined.

* **Solvent content:**
Organic solvents: 0.0 %

Section 10: Stability and reactivity

- * **Stability:** Stable under normal conditions of use and storage.
- * **Incompatibility:** Reducing agents, acids combustables, and flammable materials.
- * **Shelf Life:** Indefinite if stored properly.

Section 11: Toxicological information

- * **Acute symptoms/ signs of exposure:**
- * **Primary irritant effect:**
- * **On the skin:** Redness, itching.
- * **On the eye:** Redness, tearing, itching, burning, conjunctivitis.
- * **Ingestion:** Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain.
- * **Inhalation:** Irritation of mucous membranes, coughing, wheezing and shortness of breath.
- * **Sensitization:** No sensitizing effects known.
- * **Additional toxicological information:** Material has not been found to be a carcinogen, nor produce genetic reproductive or developmental effects.

Section 12: Ecological information

- * **General notes:** Ecological impact has not been determined.

Section 13: Disposal considerations

- * **Product:**
- * **Recommendation:** Check with all applicable local, legal, national regulations. Small amounts of this material may be suitable for sanitary sewer or waste disposal

Section 14: Transport information

- * **Land transport:** Not regulated by DOT.
- Maritime transport IMDG:** Not regulated.
- * **Air transport ICAO-TI and IATA-DGR:** Not regulated.
- * **Transport/Additional information:** Not dangerous according to the above specifications.

Section 15: Regulatory information

- * **Labelling according to EU guidelines:** Observe the general safety regulations when handling chemicals.
- * **EINECS:** Listed (231-554-3). WHMIS Canada; not WHMIS controlled.

Section 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with local or national laws.

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