

Form No HR088A v.1 Mar-24	UNCONTROLLED IF PRINTED		TECHNICAL & SAFETY DATA SHEET	
 	CREATION DATE	08/05/2025	Trident Salt Tablets	TSD001W
	VERSION NO.	2		
	REVIEWED BY	M Heffernan		
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**SECTION A: TECHNICAL DATA**

Trident Salt Tablets are high quality compacted salt tablets produced for both industrial and domestic water softener regeneration. All production processes are accredited to ISO 9001, 14001 and 45001.

Composition		
Sodium Chloride	99.50% Min	as NaCl
Moisture	0.05 % Max	as H <sub>2</sub> O
Insoluble Matter	30mg/kg	
Calcium	<100mg/kg	as Ca
Arsenic	<0.5 mg/kg	as As
Cadium	<0.5 mg/kg	as Cd
Mercury	<0.2 mg/kg	As Hg
Nickel	<1 mg/kg	as Ni
Lead	<1 mg/kg	as Pb
Magnesium	<10 mg/kg Max	as Mg
Selenium	<2.5 mg/kg Max	as Cu
Iron	<5 mg/kg	as Fe
Anti Caking Agent (E535/536) *	8.4 mg/kg Max	as [Fe(CN <sub>6</sub> ) <sup>4-</sup>
	11.9 mg/kg Max	as Na <sub>4</sub> Fe <sup>1</sup> CN <sub>6</sub>
Typical Weight per Tablet	11.2g Approx.	
Typical Tablet Dimensions	24mm x 24mm x 13mm	



**Trident Tablets are available in 3 pack options:**

- 25 kg packs (49 x 25Kg)
- 10 kg packs (100 x 20kg)
- 1000Kg pack (4-loop top lift pack with chute)

Trident Tablets are compliant with BS EN 973:2009 *Chemicals used for treatment of water intended for human consumption.*



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## SECTION B: SAFETY DATA

## 1. Identification

<b>1.1</b>	<b>Identification of the substance or preparation</b>	Trident Salt Tablets
	<b>Identification on the label / trade name</b>	Sodium Chloride
<b>1.2</b>	<b>Use of the substance / preparation</b>	Various Uses
	<b>Uses advised against</b>	N/A
<b>1.3</b>	<b>Company undertaking / identification</b>	Wilson Salt Ltd 27 Duncrue Street Belfast County Antrim BT3 9AR
	<b>E-mail</b>	info@wilsonsalt.co.uk
<b>1.4</b>	<b>Emergency telephone</b>	028 9074 8551

## 2. Hazards Identification

## 2.1 Classification

## 2.1.1 Classification according to EC Directive 93/112/EEC

Classification	Category	Risk Phrases
None	-	None

## 3. Composition / Information on Ingredients

Chemical Name	CAS No	EINECS No	Amount (%)	Classification according to EC Directive 93/112/EEC
Sodium Chloride	7647-14-5	213-598-3	100	Non-Hazardous

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**Toxicological Data on Ingredients:** Sodium chloride: ORAL (LD50): Acute: 3000 mg/kg [Rat.]. 4000 mg/kg [Mouse]. DERMAL (LD50): Acute: >10000 mg/kg [Rabbit]. DUST (LC50): Acute: >42000 mg/m 1 hours [Rat].

#### 4. First Aid Measures

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Serious Skin Contact:** Not available.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

**Serious Inhalation:** Not available.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Serious Ingestion:** Not available.

#### 5. Fire Fighting Measures

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not applicable.

**Explosion Hazards in Presence of Various Substances:** Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:** Not applicable.



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**Special Remarks on Fire Hazards:** When heated to decomposition it emits toxic fumes.

**Special Remarks on Explosion Hazards:** Electrolysis of sodium chloride in presence of nitrogenous compounds to produce chlorine may lead to formation of explosive nitrogen trichloride. Potentially explosive reaction with dichloromaleic anhydride + urea.

## 6. Accidental Release

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

## 7. Handling & Storage

**Precautions:** Keep locked up. Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

## 8. Exposure Controls / Personal Protection

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Splash goggles. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Exposure Limits:

Long Term Exposure Limit  
(8hr time weighted average)



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**Total Inhalable Dust:** 10mg/m<sup>3</sup>

**Respirable Dust:** 4mg/m<sup>3</sup>

## 9. Physical & Chemical Properties

- **Physical state and appearance:** Solid. (Solid crystalline powder.)
- **Odour:** Slight.
- **Taste:** Saline.
- **Molecular Weight:** 58.44 g/mole
- **Colour:** White.
- **pH (1% solution/water):** 7 [Neutral.]
- **Boiling Point:** 1413°C (2575.4°F)
- **Melting Point:** 801°C (1473.8°F)
- **Critical Temperature:** Not available.
- **Specific Gravity:** 2.165 (Water = 1)
- **Bulk Density:** 1.2 – 1.5
- **Vapour Pressure:** Not applicable.
- **Vapour Density:** Not available.
- **Volatility:** Not available.
- **Odour Threshold:** Not available.
- **Water/Oil Dist. Coeff.:** Not available.
- **Ionicity (in Water):** Not available.
- **Dispersion Properties:** See solubility in water.
- **Solubility:** Easily soluble in cold water, hot water.
- Soluble in glycerol, and ammonia. Very slightly soluble in alcohol. Insoluble in Hydrochloric Acid.

## 10. Stability & Reactivity

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials, high temperatures.

**Incompatibility with various substances:** Reactive with oxidizing agents, metals, acids. **Corrosivity:** Not considered to be corrosive for metals and glass.

**Special Remarks on Reactivity:** Hygroscopic. Reacts with most nonnoble metals such as iron or steel, building materials (such as cement) Sodium chloride is rapidly attacked by bromine trifluoride. Violent reaction with lithium.

**Special Remarks on Corrosivity:** Not available. Polymerization: Will not occur.

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## 11. Toxicology Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:** WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 3000 mg/kg [Rat.]. Acute dermal toxicity (LD50): >10000 mg/kg [Rabbit]. Acute toxicity of the dust (LC50): >42000 mg/m<sup>3</sup> 1 hours [Rat].

**Chronic Effects on Humans:** MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/ or yeast.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Lowest Published Lethal Dose (LDL) [Man] - Route: Oral; Dose: 1000 mg/kg

**Special Remarks on Chronic Effects on Humans:** Causes adverse reproductive effects in humans (fetotoxicity, abortion,) by intraplacental route. High intake of sodium chloride, whether from occupational exposure or in the diet, may increase risk of TOXEMIA OF PREGNANCY in susceptible women (Bishop, 1978). Hypertonic sodium chloride solutions have been used to induce abortion in late pregnancy by direct infusion into the uterus (Brown et al, 1972), but this route of administration is not relevant to occupational exposures. May cause adverse reproductive effects and birth defects in animals, particularly rats and mice (fetotoxicity, abortion, musculoskeletal abnormalities, and maternal effects (effects on ovaries, fallopian tubes) by oral, intraperitoneal, intraplacental, intrauterine, parenteral, and subcutaneous routes. While sodium chloride has been used as a negative control in some reproductive studies, it has also been used as an example that almost any chemical can cause birth defects in experimental animals if studied under the right conditions (Nishimura & Miyamoto, 1969). In experimental animals, sodium chloride has caused delayed effects on newborns, has been fetotoxic, and has caused birth defects and abortions in rats and mice (RTECS, 1997). May affect genetic material (mutagenic)

**Special Remarks on other Toxic Effects on Humans:** Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: Causes eye irritation. Ingestion: Ingestion of large quantities can irritate the stomach (as in overuse of salt tablets) with nausea and vomiting. May affect behaviour (muscle spasticity/contraction, somnolence), sense organs, metabolism, and cardiovascular system. Continued exposure may produce dehydration, internal organ congestion, and coma. Inhalation: Material is irritating to mucous membranes and upper respiratory tract.

## 12. Ecological Information

**Ecotoxicity:** Not available.

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**BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

### 13. Disposal Information

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### 14. Transport Information

Not classified as dangerous for transport.

### 15. Regulatory Information

**Federal and State Regulations:** TSCA 8(b) inventory: Sodium chloride

**Other Regulations:** EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications:** WHMIS (Canada): Not controlled under WHMIS (Canada). DSCL (EEC): R40- Possible risks of irreversible effects. S24/25- Avoid contact with skin and eyes. HMIS (U.S.A.):

- Health Hazard: 1
- Fire Hazard: 0
- Reactivity: 0
- Personal Protection: E
- National Fire Protection Association (U.S.A.):
- Health: 1
- Flammability: 0
- Reactivity: 0
- Specific hazard:
- Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

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## 16. Other Information

**References:** -Hawley, G.G. The Condensed Chemical Dictionary, 11e ed., New York N.Y., Van Nostrand Reinold, 1987. -SAX, N.I. Dangerous Properties of Industrial Materials. Toronto, Van Nostrand Reinold, 6e ed. 1984. -The Sigma-Aldrich Library of Chemical Safety Data, Edition II.

**Other Special Considerations:** Not available.