

MSDS Number: **S3338** \* \* \* \* \* *Effective Date: 08/17/09* \* \* \* \* \* *Supercedes: 11/09/06*



# SODIUM CHLORIDE

## 1. Product Identification

**Synonyms:** Salt; Rock Salt; Saline; Table Salt  
**CAS No.:** 7647-14-5  
**Molecular Weight:** 58.44  
**Chemical Formula:** NaCl  
**Product Codes:**  
J.T. Baker: 3624, 3625, 3626, 3627, 3628, 3629, 4058, 4924  
Mallinckrodt: 4577, 5519, 7361, 7503, 7532, 7534, 7540, 7544, 7576, 7581, 7713, V482

## 2. Composition/Information on Ingredients

| Ingredient      | CAS No    | Percent   | Hazardous |
|-----------------|-----------|-----------|-----------|
| Sodium Chloride | 7647-14-5 | 99 - 100% | Yes       |

## 3. Hazards Identification

**Emergency Overview**  
-----  
**WARNING! CAUSES EYE IRRITATION.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)  
-----  
Health Rating: 1 - Slight  
Flammability Rating: 0 - None  
Reactivity Rating: 0 - None  
Contact Rating: 1 - Slight  
Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES  
Storage Color Code: Green (General Storage)  
-----

**Potential Health Effects**  
-----

**Inhalation:**

May cause mild irritation to the respiratory tract.

**Ingestion:**

Very large doses can cause vomiting, diarrhea, and prostration. Dehydration and congestion occur in most internal organs. Hypertonic salt solutions can produce violent inflammatory reactions in the gastrointestinal tract.

**Skin Contact:**

May irritate damaged skin; absorption can occur with effects similar to those via ingestion.

**Eye Contact:**

Causes irritation, redness, and pain. (For salt concentrations greater than the normal saline present.)

**Chronic Exposure:**

No information found.

**Aggravation of Pre-existing Conditions:**

No information found.

---

4. First Aid Measures

**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

If large amounts were swallowed, give water to drink and get medical advice.

**Skin Contact:**

Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

---

5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

---

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Small amounts of residue may be flushed to sewer with plenty of water.

---

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

None established.

**Ventilation System:**

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

**Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear protective gloves and clean body-covering clothing.

**Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

**Appearance:**

White crystals.

**Odor:**

Odorless.

**Solubility:**

36g/100cc water @ 20C (68F)

**Specific Gravity:**

2.16

**pH:**

6.7 - 7.3 (aqueous solution)

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

1413C (2575F)

**Melting Point:**

801C (1474F)

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

1.0 @ 865C (1589F)

**Evaporation Rate (BuAc=1):**

No information found.

---

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage. Hygroscopic.

**Hazardous Decomposition Products:**

When heated to above 801C (1474F) it emits toxic fumes of chloride and sodium oxide.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Lithium, bromine trifluoride.

**Conditions to Avoid:**

Incompatibles.

## 11. Toxicological Information

Oral rat LD50: 3000 mg/kg.

Inhalation rat LC50: > 42 gm/m3 /1H.

Skin rabbit LD50: > 10 gm/kg. Investigated as a mutagen, reproductive effector.

|                             |                      |             |               |
|-----------------------------|----------------------|-------------|---------------|
| -----\Cancer Lists\-----    |                      |             |               |
| Ingredient                  | ---NTP Carcinogen--- |             | IARC Category |
|                             | Known                | Anticipated |               |
| Sodium Chloride (7647-14-5) | No                   | No          | None          |

## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

15. Regulatory Information

|   |                  |                  |                    |                |
|---|------------------|------------------|--------------------|----------------|
| -----\Chemical Inventory Status - Part 1\-----                  |                  |                  |                    |                |
| Ingredient  | TSCA             | EC               | Japan              | Australia      |
| Sodium Chloride (7647-14-5)                                     | Yes              | Yes              | Yes                | Yes            |
| -----\Chemical Inventory Status - Part 2\-----                  |                  |                  |                    |                |
| Ingredient  | Korea            | DSL              | Canada<br>NDSL     | Phil.          |
| Sodium Chloride (7647-14-5)                                     | Yes              | Yes              | No                 | Yes            |
| -----\Federal, State & International Regulations - Part 1\----- |                  |                  |                    |                |
| Ingredient  | -SARA 302-<br>RQ | TPQ              | -SARA 313-<br>List | Chemical Catg. |
| Sodium Chloride (7647-14-5)                                     | No               | No               | No                 | No             |
| -----\Federal, State & International Regulations - Part 2\----- |                  |                  |                    |                |
| Ingredient  | CERCLA           | -RCRA-<br>261.33 | -TSCA-<br>8 (d)    |                |
| Sodium Chloride (7647-14-5)                                     | No               | No               | No                 |                |

Chemical Weapons Convention: No TSCA 12 (b): No CDTA: No  
SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No  
Reactivity: No (Pure / Solid)

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0

Label Hazard Warning:

WARNING! CAUSES EYE IRRITATION.

Label Precautions:

Avoid contact with eyes.

Wash thoroughly after handling.

Label First Aid:

In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Product Use:

Laboratory Reagent.

Revision Information:

No Changes.

Disclaimer:

\*\*\*\*\*

Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY

**WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH  
HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE  
RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.**

\*\*\*\*\*

**Prepared by:** Environmental Health & Safety  
Phone Number: (314) 654-1600 (U.S.A.)