SODIUM CHLORIDE

MSDS Number: S3338 --- Effective Date: 12/08/96

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, 3627, 3628, 3629, 4058, 4924, 5589, 5833
   Mallinckrodt: 4577, 5519, 7361, 7532, 7540, 7544, 7581, 7713, V482

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>99 - 100%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Hazards Identification

   Emergency Overview

   WARNING! CAUSES EYE IRRITATION.

   J.T. Baker SAF-T-DATA\textsuperscript{(tm)} 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
   Storage Color Code: Orange (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 the dust or mist is apparent, a half-face dust/mist respirator may be worn. 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 801°C (1474°F) 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 /H.
Skin rabbit LD50: > 10 gm/kg. Investigated as a mutagen, reproductive effector.

\begin{tabular}{|c|c|c|c|}
\hline
Ingredient & Known & Anticipated & IARC Category \\
\hline
Sodium Chloride (7647-14-5) & No & No & None \\
\hline
\end{tabular}

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

\begin{tabular}{|c|c|c|}
\hline
Ingredient & TSCA & EC \\
\hline
Sodium Chloride (7647-14-5) & Yes & Yes \\
\hline
\end{tabular}

\begin{tabular}{|c|c|c|}
\hline
Ingredient & Korea & DSL \\
\hline
Sodium Chloride (7647-14-5) & Yes & Yes \\
\hline
\end{tabular}

\begin{tabular}{|c|c|c|}
\hline
Ingredient & RQ & TPQ \\
\hline
Sodium Chloride (7647-14-5) & No & No \\
\hline
\end{tabular}

\begin{tabular}{|c|c|c|}
\hline
Ingredient & CERCLA & 261.33 \\
\hline
Sodium Chloride (7647-14-5) & No & No \\
\hline
\end{tabular}

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

Australian Hazchem Code: No information found.
Poison Schedule: No information found.
WHMIS:
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:**
New 16 section MSDS format, all sections have been revised.

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