Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Common Name/Trade Name: Sodium Chloride 5M
Catalog Number(s): S-186
CAS#: 7647-14-5
RTECS: Mixture.
TSCA: TSCA 8(b) inventory: Water; Sodium chloride
CI#: Not applicable.

Manufacturer: SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Commercial Name(s): Not available.
Synonym: Sodium Chloride 5M Ionic Strength Adjustor for Potassium Ion Selective Electrode
Chemical Name: Chloride salt. (Salt.)
Chemical Family: Not applicable.
Chemical Formula: Not applicable.

Supplier: SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Water</td>
<td>7732-18-5</td>
<td></td>
<td></td>
<td></td>
<td>70-71</td>
</tr>
<tr>
<td>2) Sodium chloride</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td>29-30</td>
</tr>
</tbody>
</table>

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/m³ 1 hours [Rat].

Section 3. Hazards Identification

Potential Acute Health Effects: Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of ingestion.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Sodium chloride]. Mutagenic for bacteria and/or yeast. [Sodium chloride].
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.

Continued on Next Page
### Section 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 | In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. |
| Serious Skin Contact | Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention. |
| 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. |

### Section 5. Fire and Explosion Data

| 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 | Non-explosive in presence of open flames and sparks, of shocks. |
| Fire Fighting Media and Instructions | Not applicable. |
| Special Remarks on Fire Hazards | Not available. |
| 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. (Sodium chloride) |

### Section 6. Accidental Release Measures

| Small Spill | Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements. |
| Large Spill | Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. |

**Continued on Next Page**
Section 7. Handling and Storage

Precautions
Keep locked up. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

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

Section 8. Exposure Controls/Personal Protection

Engineering Controls
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protection
Safety glasses. Synthetic apron. Gloves (impervious).

Personal Protection in Case of a Large Spill
Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits
Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance
Liquid.

Molecular Weight
Not applicable.

pH (1% soln/water)
Not available

Boiling Point
The lowest known value is 100°C (212°F) (Water).

Melting Point
Not available.

Critical Temperature
Not available.

Specific Gravity
Weighted average: 1.19 (Water = 1)

Vapor Pressure
The highest known value is 2.3 kPa (@ 20°C) (Water).

Vapor Density
The highest known value is 0.62 (Air = 1) (Water).

Volatility
Not available.

Odor 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.

Section 10. Stability and Reactivity Data

Stability
The product is stable.

Instability Temperature
Not available.

Conditions of Instability
Incompatible materials

Incompatibility with various substances
Slightly reactive to reactive with oxidizing agents, metals, acids.

Corrosivity
Non-corrosive in presence of glass.

Continued on Next Page
### Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Skin Contact. Eye contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to Animals</td>
<td>Acute oral toxicity (LD50): 10169 mg/kg (Rat) (Calculated value for the mixture). Acute dermal toxicity (LD50): 37288 mg/kg (Rabbit) (Calculated value for the mixture).</td>
</tr>
<tr>
<td>Chronic Effects on Humans</td>
<td>MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Sodium chloride]. Mutagenic for bacteria and/or yeast. [Sodium chloride].</td>
</tr>
<tr>
<td>Other Toxic Effects on Humans</td>
<td>Hazardous in case of skin contact (irritant). Slightly hazardous in case of ingestion, inhalation.</td>
</tr>
<tr>
<td>Special Remarks on Toxicity to Animals</td>
<td>Lowest Published Lethal Dose (LDL) [Man] - Route: Oral; Dose: 1000 mg/kg (Sodium chloride)</td>
</tr>
<tr>
<td>Special Remarks on Chronic Effects on Humans</td>
<td>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, arrestion, 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 n 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 &amp; 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) (Sodium chloride)</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>Acute Potential Health Effects: Skin: May cause mild skin irritation. Eyes: Causes mild to moderate eye irritation. Ingestion: Ingestion of large quantities can irritate the stomach (as in overuse of salt tablets) with nausea and vomiting. May affect behavior (muscle spasticity/contraction, somnolence), metabolism, and cardiovascular system. Continued exposure may produce dehydration, internal organ congestion, and coma. Inhalation: Inhalation of mist may cause respiratory tract irritation.</td>
</tr>
</tbody>
</table>

### Section 12. Ecological Information

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Not available.</th>
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<tbody>
<tr>
<td>BOD5 and COD</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of Biodegradation</td>
<td>Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.</td>
</tr>
<tr>
<td>Toxicity of the Products of Biodegradation</td>
<td>The product itself and its products of degradation are not toxic.</td>
</tr>
</tbody>
</table>

Special Remarks on the Products of Biodegradation | Not available. |
### Section 13. Disposal Considerations

**Waste Disposal**

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

### Section 14. Transport Information

**DOT Classification**

Not a DOT controlled material (United States).

**Identification**

Not applicable.

**Special Provisions for Transport**

Not applicable.

**DOT (Pictograms)**

![Pictogram](image)

### Section 15. Other Regulatory Information and Pictograms

**Federal and State Regulations**

TSCA 8(b) inventory: Water; Sodium chloride

**California Proposition 65**

- Warnings
  - California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
  - California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

**Other Regulations**

Not available.

**Other Classifications**

- WHMIS (Canada) CLASS D-2B: Material causing other toxic effects (TOXIC).
- DSCL (EEC) R36- Irritating to eyes.
- S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**HMIS (U.S.A.)**

<table>
<thead>
<tr>
<th></th>
<th>Health Hazard</th>
<th>Fire Hazard</th>
<th>Reactivity</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>C</td>
</tr>
</tbody>
</table>

**National Fire Protection Association (U.S.A.)**

- Health: 2
- Flammability: 0
- Reactivity: 0
- Specific hazard: 0

**WHMIS (Canada) (Pictograms)**

![Pictogram](image)

**DSCL (Europe) (Pictograms)**

![Pictogram](image)

**TDG (Canada) (Pictograms)**

![Pictogram](image)

*Continued on Next Page*
Section 16. Other Information

| MSDS Code | S186S |
| References | Not available. |
| Other Special Considerations | Not available. |

Verified by Sonia Owen. |

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user’s responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.