Eastern Salt Company, Inc.

Safety Data Sheet

SECTION 1. Identification

COMMON PRODUCT NAMES:	Road Salt, De-Icing Salt, Sodium Chloride, Salt
RECOMMENDED USE:	Lowering the freezing point of snow and ice in order to remove it from roads and highways.
RECOMMENDED RESTRICTIONS:	None known. Use prudently in fresh water ecologies.
MANUFACTURER:	Eastern Salt Company, Inc. 134 Middle Street, Suite 210 Lowell, MA 01852, USA Ph.: 978-251-8553
EMERGENCY:	CHEMTREC (800) 424-9300

SECTION 2. Hazards Identification

PHYSICAL HAZARDS:	Not classified
HEALTH HAZARDS:	Not classified
ENVIRONMENTAL HAZARDS:	Use prudently in fresh water areas
OSHA DEFINED HAZARDS:	Not classified
LABEL ELEMENTS	
HAZARD SYMBOL:	None
SIGNAL WORD:	None
HAZARD STATEMENT:	The product does not meet the criteria for classification
PRECAUTIONARY STATEMENT	
PREVENTION:	Observe good industrial hygiene practices
RESPONSE:	Wash hands after handling
STORAGE:	Soluble in water. Store away from oxidizing agents
DISPOSAL:	Dispose of waste and residues in accordance with local authority requirements
HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)	None Known
SUPPLEMENTAL INFORMATION:	Not applicable

SECTION 3. Composition/Information on Ingredients

VISUAL APPEARANCE:	White solid of small, pebble-sized crystals
INGREDIENTS	Sodium Chloride (NaCl) concentrated from 95.99 to 99.99. Trace amounts of calcium, magnesium, potassium. CAS No. 7647-14-5.
	Sodium Ferrocyanide Decahydrate (CAS No. 13601-19-9) concentrated from 50 ppm to 100 ppm is added at the mine or the load port as an anticaking additive to keep road salt free flowing through spreaders. Also known as Yellow Prussiate of Soda or YPS. Approved by FDA as a food additive.

SECTION 4. First Aid Measures

EYE CONTACT:	Immediately flush eyes with plenty of water. Lift upper and lower eyelids occasionally. Get medical attention if irritation persists.
SKIN CONTACT:	Flush skin with soap and water. Remove clothing and shoes as needed. Get medical attention if irritation persists.
INGESTION:	If large amounts are swallowed, give water to drink and seek medical attention. Milk has also been reported as treatment. Do not induce vomiting.
INHALATION:	Provide fresh air immediately. Get medical attention if any breathing difficulty occurs.
NOTES TO PHYSICIAN:	Symptoms may be delayed.
GENERAL INFORMATION:	Ensure that medical personnel are aware of the materials involved, and take precautions to protect themselves.

SECTION 5. Fire-Fighting Measures

SUITABLE EXTINGUISHING MEDIA:	Salt and salt mixtures are not combustible.
UNSUITABLE EXTINGUISHING MEDIA:	Not applicable
SPECIFIC HAZARDS ARISINGFROM THE CHEMICAL:	During fire, gases hazardous to health may form
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:	Firefighters should wear full protective clothing. Use self-contained breathing apparatus as situation dictates
FIRE-FIGHTINGEQUIPMENT/INSTRUCTIONS:	Salt is not combustible and is not the material of concern for firefighting equipment or methods.
SPECIFIC METHODS:	In a fire, equipment and methods should be consistent with the combustible material.
GENERAL FIRE HAZARDS:	Not flammable or combustible.
HAZARDOUS COMBUSTION PRODUCTS:	If exposed to fire, chlorine, hydrogen chloride, Oxides of sodium could be produced
EXPLOSION DATA:	None expected. Data not available.

SECTION 6. Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Keep unnecessary personnel away. Avoid inhalation of dust from spilled material. Use approved respirator if there is dust at levels exceeding exposure limits. Wear appropriate protective clothing and gear before touching damaged containers or spilled material.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Vacuum or sweep material into a suitable disposal container. If needed, use a non-reactive dust suppressant. Cleanup spills immediately observing proper procedures with respect to protective equipment or clothing if needed.

ENVIRONMENTAL PRECAUTIONS: Avoid direct discharge to water supply areas, unpaved areas, or sanitary sewer systems.

SECTION 7. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING: Use with adequate ventilation in enclosed spaces. Minimize dust generation and accumulation of dust caused by repeated handling. Road salt is hygroscopic (absorbs water from the atmosphere) and can cake and become hard. Avoid contact with strong acids. Avoid contact with the eyes, skins, and clothing. Do not ingest or inhale.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, ventilated area when available. Store on impermeable surface and avoid leaching or loss to unpaved ground. Take precautions to avoid direct runoff to water supply areas or sanitary sewer systems. Becomes hygroscopic at 70-75% humidity.

SECTION 8. Exposure Controls/Personal Protection

OCCUPATIONAL EXPOSURE LIMITS: No exposure limits noted for ingredients.

BIOLOGICAL LIMIT VALUES: No biological exposure limits noted for the ingredients.

APPROPRIATE ENGINEERING CONTROLS: Use sufficient ventilation to prevent the buildup of dust or fumes from handling or thermal processes.

OSHA Permissible Exposure Limits (PEL): None established for sodium chloride, which is a soluble substance. General limit for Particulates Not Otherwise Regulated (PNOR): 5 mg/m^3 Respirable Dust 8-Hour: 15 mg/ m^3

American Conference of Government Industrial Hygienists (ACGIH) Threshold Limit Values (TLV): None established for sodium chloride, which is a soluble substance. General limit for Particulates (insoluble) Not Otherwise Classified (PNOC): 10 mg/ m^3 Inhalable Particulate 8-Hours TLV: 3 mg/ m^3

INDIVIDUAL PROTECTION MEASURES SUCH AS PERSONAL PROTECTIVE EQUIPMENT:	
EYE/FACE PROTECTION:	Safety glasses or tight-fitting goggles if dusty
SKIN PROTECTION:	Wear appropriate chemical-resistant gloves
HAND PROTECTION:	Wear suitable protective clothing
RESPIRATORY PROTECTION:	No personal respiratory equipment normally required
THERMAL HAZARDS:	Wear appropriate thermal protective clothing when necessary
GENERAL HYGIENE CONSIDERATIONS:	Observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment.

SECTION 9. Physical and Chemical Properties

APPEARANCE:	Crystalline, white, or with light color from trace geological materials, or colorless
PHYSICAL STATE:	Solid. Small-pebble size.
FORM:	Solid. Small-pebble size.
COLOR:	Varies from white whitish with very light hues from trace geological materials, or colorless
ODOR:	Odorless
ODOR THRESHOLD:	Not applicable
PH:	6.7 to 10.0
MELTING POINT/FREEZING POINT:	1,474° F. (801° C.)
INITIAL BOILING POINT AND RANGE:	2,575° F.
FLASH POINT:	Not applicable
EVAPORATION RATE:	No information found.
FLAMMABILITY (SOLID, GAS):	No information found
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	
FLAMMABILITY – LOWER (%):	No information found
FLAMMABILITY – HIGHER (%):	No information found
EXPLOSIVE – LOWER (%):	No information found
EXPLOSIVE – HIGHER (%)	No information found
VAPOR PRESSURE:	1.0 @ 865° C. (1,589° F.)
VAPOR DENSITY:	No information found.
RELATIVE DENSITY:	2.16 (H2O = 1.0)
SOLUBILITY (WATER):	26.4%
PARTITION COEFFICIENT (N-OCTANOL/WATER):	No information found
AUTO-IGNITION TEMPERATURE:	No information found
DECOMPOSITION TEMPERATURE:	No information found
VISCOSITY:	No information found
BULK DENSITY:	70 – 83 lbs/ft3
MOLECULAR FORMULA:	NaCl
MOLECULAR WEIGHT:	58.44
PH IN AQUEOUS SOLUTION:	6 - 9

SECTION 10. Stability and Reactivity

REACTIVITY:	Stable and non-reactive under normal conditions of use, storage, and transport
CHEMICAL STABILITY:	Stable under ordinary conditions. Hygroscopic (absorbs water)
POSSIBILITY OF HAZARDOUS REACTIONS:	No dangerous reaction known under conditions of normal use.
CONDITIONS TO AVOID:	Contact with incompatible materials (i.e. strong oxidizing agents)
INCOMPATIBLE MATERIALS:	Avoid contact with strong acids. Reacts with most non-noble metals such as iron and steel, building materials, bromine, trifluoride, lithium, especially when wet. Potentially explosive reaction with dichloromaleic anhydride and urea. Electrolysis of mixtures with nitrogen compounds may form explosive nitrogen trichloride.
HAZARDOUS DECOMPOSITION PRODUCTS:	When heated above 1,474° F. may evolve chlorine gas or fumes of sodium oxide. May evolve chlorine gas when in contact with strong acids.

SECTION 11. Toxicological Information

INFORMATION ON LIKELY ROUTES OF EXPOSURE:

INGESTION:	Expected to be a low ingestion hazard
INHALATION:	No adverse effects due to inhalation are expected. Inhalation of dusts may cause respiratory irritation.
SKIN CONTACT:	Prolonged or repeated skin contact may cause irritation
EYE CONTACT:	Direct contact with eyes may cause temporary irritation

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL, AND TOXICOLOGICAL CHARACTERISTICS:

Eye and skin contact: Exposure may cause temporary irritation, redness, or discomfort. For ingestion, consuming less than a few grams would not be harmful. Effects after ingesting an excessive quantity: nausea and vomiting, diarrhea, cramps, restlessness and other symptoms may be observed.

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY	Oral LD50 in mice: 4,000 mg/kg; Oral LD50 in rats: 3,000 mk/kg; Other LD50 mice: 2,602 mg/kg
SKIN CORROSION/IRRITATION	Prolonged skin contact may cause temporary irritation
EXPOSURE MINUTES:	Not available
ERYTHEMA VALUE:	Not available
OEDEMA VALUE:	Not available

SERIOUS EYE DAMAGE/EYE IRRITATION:	Direct contact with eyes may cause temporary irritation
CORNEAL OPACITY VALUE:	Not available
IRIS LESION VALUE:	Not available
CONJUNCTIVAL REDDENING VALUE:	Not available
RECOVER DAYS:	Not available
RESPIRATORY OR SKIN SENSITIZATION	
RESPIRATORY SENSITIZATION:	Not available
SKIN SENSITIZATION:	This product is not expected to cause skin sensitization
GERM CELL MUTAGENICITY	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic
MUTAGENICITY	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic
CARCINOGENICITY	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA
REPRODUCTIVE TOXICITY	This product is not expected to cause reproductive or developments effects
TERATOGENICITY	Not classified
SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE	Not classified
SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE	Not classified
ASPIRATION HAZARD	Not classified
CHRONIC EFFECTS	Not classified
NAME OF TOXICOLOGICALLY SYNERGISTIC PRODUCTS	Not available

SECTION 12. Ecological Information

ENVIRONMENTAL FATE:	Road salt can move through the environment in the salt form or as dissociated ions. Road salt goes into solution in water. In aquatic systems, chloride ions separate from corresponding cations (sodium, potassium calcium, etc.). The chloride ions can pass through soil and water. In soil, the positively charged chloride ions tend to bond with negatively charged soil surfaces. Sodium cations have low reactivity in water. With respect to the anti-caking additive, the ferrocyanide is a complex anion with a very strong bond between the central iron atom and the octahedral configuration of cyanide ligands. Dissociated anions react readily with iron to form ferric ferrocyanide, a very stable, relatively immobile compound. The anion is subject to decomposition if it is in solution and subject to very bright, direct light, but released cyanide recombines rapidly with numerous transition metals to form more stable, less toxic materials.

ECOTOXICITY: Care should be taken to reduce release of road salts in freshwater areas. Dispersal and calibration restrictions on spreaders should be followed. EC50 for crustacean (water flea [Daphina magna]) is 340.7 – 469.2 mg/l, 48 hours. LC50 for fish (rainbow trout, Donaldson trout [Oncorhynchus mykiss]) is 4,747 – 7,824 mg/l, 96 hours

PERSISTENCE AND DEGRADABILITY: No data available

BIOACCUMULATIVE POTENTIAL: No data available

MOBILITY IN SOIL: No data available

MOBILITY IN GENERAL: No data available

OTHER ADVERSE EFFECTS: No other environmental adverse effects anticipated

SECTION 13. Disposal Considerations

DISPOSAL INSTRUCTIONS: Collect and reclaim or dispose in sealed containers in accordance with applicable regulations

LOCAL DISPOSAL REGULATIONS: Dispose in accordance with applicable regulations

HAZARDOUS WASTE CODE: The waste code should be assigned in discussion between the user, the producer, and the waste disposal company

WASTE FROM RESIDUES/UNUSED PRODUCTS: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see Disposal Instructions)

CONTAMINATED PACKAGING: Empty containers should be taken to an approved waste-handling site for recycling or disposal. Since emptied containers may contain product residue, follow label warnings even after container is emptied.

SECTION 14. Transport Information

U.S. DEPARTMENT OF TRANSPORTATION (DOT): Not regulated as dangerous goods

U.S. DEPARTMENT OF TRANSPORTATION (DOT):TRANSPORTATION OF DANGEROUS GOODS (TDG – CANADA): Not regulated as dangerous goods

SECTION 15. Regulatory Information

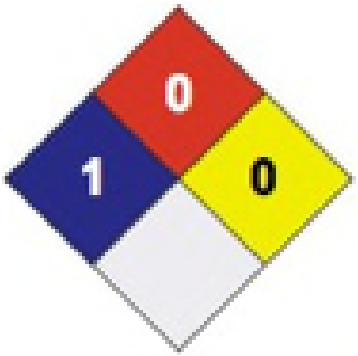
U.S. FEDERAL REGULATIONS	All Components are on the US EPA TSCA Inventory List. This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200
TSCA SECTION 12(B) EXPORT NOTIFICATION (40 CFR 707, SUBPT. D)	Not regulated
OSHA SPECIFICALLY REGULATED SUBSTANCES (29 CFR 1910.1001-1050)	Not Listed
CERCLA HAZARDOUS SUBSTANCE LIST (40 CFR 302.4)	Not Listed
SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA)	
HAZARD CATEGORIES:	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 EXTREMELY HAZARDOUS SUBSTANCE	Not Listed
SARA 311/312 HAZARDOUS CHEMICAL	No
SARA 313 (TRI REPORTING)	Not regulated
CLEAN AIR ACT (CAA) SECTION 112 HAZARDOUS AIR POLLUTANTS (HAP)	Not regulated
CLEAN AIR ACT (CAA) SECTION 112(R) ACCIDENTAL RELEASE PREVENTION (40 CFR 68.130)	Not regulated
SAFE DRINKING WATER ACT (SWDA)	Not regulated
FOOD AND DRUG ADMINISTRATION	Not regulated
US STATE REGULATIONS	
MASSACHUSETTS RIGHT TO KNOW (RTK) SUBSTANCE LIST	Not regulated
PENNSYLVANIA RTK	Not regulated
RHODE ISLAND RTK	Not regulated
NEW JERSEY RTK	Not regulated

SECTION 16. Other Information

HMIS® RATINGS:

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



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It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations. It is also the responsibility of the user to maintain a safe workplace. The user should consider the health hazards and safety information provided as a guide and should take the necessary steps to instruct employees and to develop work practice procedures to ensure a safe work environment.

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