



MOLTEN SALT SUPPLY, LLC

Safety Data Sheet

Date Issued: 4/11/25

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Molten Salt Supply - Original Blend
Molten Salt Supply - Butting Salt

PRODUCT DESCRIPTION: High Temperature Heat transfer fluid

MANUFACTURER

Molten Salt Supply, LLC
3411 Rambling Pines Dr.
Kingwood, TX 77345
Phone: (281) 954-1567
E-mail: will.bridges@moltensaltsupply.com

24 HR. EMERGENCY CONTACTS

CHEMTREC (U.S.): 800-424-9300

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Hazardous Ingredient</u>	<u>EINECS</u>	<u>CAS #</u>	<u>% by Wt.</u>	<u>EC Label Symbol</u>	<u>EC Risk Phrases</u>
Potassium Nitrate	231-818-8	7757-79-1	50 – 60%	Xi	R8/22/36/37/38
Sodium Nitrite	231-555-9	7632-00-0	40 – 50%	T/Xn/Xi	R8/20/25/31/36/37/38
Sodium Nitrate	231-554-3	631-99-4	< 10%	Xi	R8/22/36/37

NOTE – See Section 15 for full description of EC Risk Phrases

3. HAZARDS IDENTIFICATION



Signal Word: DANGER

Hazard Category: Oxidizing Solid Hazard Category 3
Acute Toxicity-Oral Hazard Category 3

Eye Damage/Irritation Hazard Category 2A

Acute Aquatic Toxicity-Category 1

Chronic Aquatic Toxicity-Category 1

Hazard Statements: May intensify fire, oxidizer

Toxic if swallowed.

Causes serious eye irritation.

Very toxic to aquatic life with long lasting effects.

Prevention: Keep away from heat.

Keep/Store away from clothing and other combustible material.

Take any precaution to avoid mixing with combustibles.

Wash skin thoroughly after handling.

Do not eat, drink, or smoke when using this product.

Wear rubber protective gloves and goggles.

Avoid releases to the environment

EMERGENCY OVERVIEW

White granular solid. No odor. Oxidizer.

DANGER: Causes eye, skin and respiratory irritation. Inhalation of large amounts harmful, may cause systemic effects, as material is readily absorbed by lung tissue. Harmful or fatal if swallowed.

PRIMARY ROUTES OF ENTRY

Eye Contact. Skin Contact. Inhalation.

EYE Hazards

Causes eye irritation.

SKIN Hazards

Causes skin irritation.

INHALATION Hazards

Causes respiratory tract irritation. Inhalation of large amounts harmful, may cause systemic effects, as material is readily absorbed by lung tissue. See other routes of entry for other possible health effects.

INGESTION Hazards

Harmful or fatal if swallowed. Ingestion can result in acute toxic effects: nausea, conversion of hemoglobin to methemoglobin { producing cyanosis (blue skin) } and a marked fall in blood pressure, leading to collapse, coma and possible death.

CHRONIC Hazards

Chronic exposure to nitrates may cause anemia, nephritis and methemoglobinemia. Chronic exposure to nitrites may cause methemoglobinemia. Nitrites and nitrates can also react with organic amines to form potentially carcinogenic nitrosamine compounds. These compounds can be formed in the acidic environments such as that found in the stomach.

PHYSICAL Hazards

As supplied - none.

Other – this product is designed to be used melted, in a molten condition at high temperatures. Health hazard effects of contact with molten material include: magnification of section five hazard data, severe thermal burns of skin tissue, to include permanent tissue destruction and scarring, loss of vision and possible death.

4. FIRST AID MEASURES

EYES

Immediately flush eyes with plenty of water, raising eyelids occasionally to facilitate irrigation and continue for at least 15 minutes. Get medical attention.

SKIN

Wash with soap & water. Remove contaminated clothing and wash before reuse. Get medical attention if irritation develops or persists.

INHALATION

Remove individual to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult or cyanosis (blue skin) develops, give oxygen, provided a qualified operator is available. Get medical attention.

INGESTION

If conscious, have victim rinse mouth, then immediately give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat. Continue until vomited fluid is clear. Get immediate medical attention. If cyanosis (blue skin) develops, give oxygen, provided a qualified operator is available.

5. FIRE FIGHTING MEASURES

FLASH POINT: None – not applicable.

FLAMMABLE LIMITS: Not applicable.

FIRE AND EXPLOSION HAZARDS

Material is an oxidizer. It increases the flammability of organics, combustibles and easily oxidizable materials. Decomposes rapidly when heated above 1100° F, releasing hazardous fumes. The addition of water to a molten salt bath can cause the formation of dangerous steam pockets and an explosion or violent eruption/boil over of molten salt.

EXTINGUISHING MEDIA

Material is non-flammable / non-combustible. Do NOT use water on a molten salt bath – potential explosion hazard. Carbon dioxide or dry chemical may be used for material around the immediate vicinity of the salt bath. Water may be used on granular/powder material. Clean dry sand can be used for slagging and diking of escaped molten salt. Do not throw sand into salt baths.

FIRE FIGHTING PROCEDURES

Wear full protective clothing and self-contained breathing apparatus. Do NOT use water on molten salt. Clean dry sand may be used for slagging and diking of escaped molten salt.

6. ACCIDENTAL RELEASE MEASURES

GRANULAR/POWDER SPILL

Sweep & shovel spilled material into a chemical waste container. Label container as “Oxidizer”.

MOLTEN SPILL

Use clean dry sand to dike and contain spill. Allow molten spill to cool and solidify, then sweep & shovel material into a chemical waster container. Label container as “Oxidizer”.

ENVIRONMENTAL PRECAUTIONS

Use appropriate containment to avoid runoff or release to sewer, waterways or drinking water. Spills and releases may have to be reported to Federal and/or local authorities.

7. HANDLING AND STORAGE

HANDLING

Wear proper protective clothing when handling, especially when working with molten salt. Avoid generation and inhaling of dust when handling. Keep container tightly closed when not in use to avoid absorption of moisture. Do NOT add moist or wet product to a molten salt bath.

STORAGE

Keep container tightly closed when not in use to avoid absorption of moisture. Avoid water contamination. Store container in a cool, dry area away from incompatible materials.

EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

If dust is generated, provide local exhaust ventilation to control airborne particulate levels below ingredient exposure limits and/or OSHA Nuisance Dust Limits.

PERSONAL PROTECTIVE EQUIPMENT

EYE: Granular/powder material - Safety glasses with side/brow shields and/or direct-vent safety goggles required. Molten material - Hardhat with face shield and either safety glasses with side/brow shields or indirect-vent safety goggles required.

SKIN: Wear chemical resistant gloves when handling powdered products. Wear heat resistant gloves when working with molten or hot materials. Consult your company’s health and safety plan, safety officer and/or safety supplier for proper type based on chemical compatibility as well as physical and health risks associated with the products application and operation conditions.

RESPIRATORY: When conditions require it, use a NIOSHA/MSHA approved respirator to limit inhalation of product dust. Consult your company’s Respiratory Protection Program and manufactures recommendations for proper selection and use of respirator type.

WORK/HYGIENIC PRACTICES

Smoking should not be permitted in areas where dust is present. Use good personal hygiene. Wash thoroughly with soap and water after handling. Facilities using this material should be equipped with an eyewash and safety shower.

INGREDIENT(S) – EXPOSURE LIMITS

	<u>ACGIH TLV</u>	<u>NIOSH</u>	<u>OSHA PEL</u>
Potassium Nitrate	Not Established	Not Established	Not Established
Sodium Nitrite	Not Established	Not Established	Not Established
Sodium Nitrate	Not Established	Not Established	Not Established

Nuisance Dust Limits	10 mg/m ³ Inhalable 3 mg/m ³ Respirable	Not available Not available	15 mg/m ³ Total Dust 5 mg/m ³ Respirable
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8. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Pink granular powder.
ODOR:	None.
PH:	Not applicable.
BOILING POINT:	Decomposes before boiling.
FLASH POINT:	None.
MELTING POINT:	288 ⁰ F.
VAPOR PRESSURE:	No information available.
VAPOR DENSITY:	No information available.
SOLUBILITY (in Water):	Completely soluble.
SPECIFIC GRAVITY:	Not applicable.

9. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Temperatures above 1100⁰ F: rapidly decomposes to yield hazardous fumes.

INCOMPATIBLE MATERIALS: Acids, ammonium or magnesium compounds, combustibles, organics and reducing agents – particularly cyanides, cyanates and sulfates

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen.

10. TOXICOLOGICAL INFORMATION

ACUTE

Sodium Nitrite:

?? LD50 Oral-rat of 180 mg/Kg, LD50 Oral-rabbit of 186 mg/Kg

?? LC50 Inhalation – rat of 5.5 mg/m³ reported by NTP

?? Fatal if directly ingested (the adult lethal dose is approx. 2-5 grams)

Potassium Nitrate:

?? LD50 Oral-rat of approx. 4 g/Kg

Sodium Nitrate:

?? LD50 Oral-rat of 4.3 g/Kg

CHRONIC

?? Chronic exposure to nitrates may cause anemia, nephritis and methemoglobinemia.

?? Chronic exposure to nitrites may cause methemoglobinemia.

?? Nitrites and nitrates can also react with organic amines to form potentially carcinogenic nitrosamine compounds. These compounds can be formed in the acidic environments such as that found in the stomach.

CARCINOGENICITY (Ingredients in section 2)

IARC: None listed

NTP: None listed

OSHA: None listed

MUTAGENICITY

No information available.

REPRODUCTIVE EFFECTS

No information available.

TERATOGENIC EFFECTS

No information available.

11. ECOLOGICAL INFORMATION

ECTOXICITY

Sodium Nitrite:

?? 17.1 ppm/24hr./minnow/no effect/fresh water.

?? 7.5 ppm/48hr./mosquito fish/TLm/fresh water.

MOBILITY

No information available.

PERSISTENCE / BIOACCUMULATIVE / DEGRADABILITY POTENTIALS

No information available for the ingredients listed in section 2.

OTHER ADVERSE EFFECTS

No information available

12. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD

Oxidizer. Dispose of unused and used material at an approved/licensed chemical waste disposal/treatment facility according to current Federal, State and Local regulations. Wash waters containing product residue may be regulated due to nitrate/nitrite content, consult you're Local, State and Federal agencies regarding proper waste water discharge regulations.

RCRA INFORMATION

Material meets the RCRA OXIDIZER characteristic – D001.

Under the Resource Conservation and Recovery Act (RCRA) regulations, it is the responsibility of the product user to determine, at the time of disposal, whether a material should be classified as hazardous waste.

13. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Description: Oxidizing Substances, Solid, N.O.S., (contains Sodium Nitrate, Sodium Nitrite and Potassium Nitrate), 5.1, UN 1479, PG.III, RQ

DOT Shipping Label: 5.1 - Oxidizer

IATA (International Air Transportation Authority)

Compliance with IATA not determined

IMO (International Maritime Organization)

Compliance with IMO not determined

14. REGULATORY INFORMATION

United States Regulatory Information

SARA 311/312 Hazard Categories

Acute, Fire

SARA 313 Reportable Substance Notification

Sodium Nitrite CAS # 7632-00-0

Potassium Nitrate.....Nitrate Compounds Water Dissociable

Sodium NitrateNitrate Compounds Water Dissociable

NOTE: “Nitrate Compounds Water Dissociable” only applies to the material that is washed or rinsed off and dissolved into water.

CERCLA RQ (Reportable Quantity)

Sodium Nitrite – 100 lbs.

TSCA (Toxic Substance Control Act)

All intentional ingredients are listed on the TSCA Inventory.

Canadian Regulatory Information

Compliance with Canadian Regulations not determined.

European Union (EU) Regulatory Information

EINECS Inventory

All intentional ingredients are listed on the European’s EINECS Inventory.

EEC Label Symbol and Classification



R8 – Contact with combustible material may cause fire.

R20/22 – Harmful by inhalation and if swallowed.

R25 – Toxic if swallowed.

R36/37/38 – Irritating to eyes, respiratory system and skin.

S8 – Keep container dry.

S17 – Keep away from combustible material.

S22 – Do not breathe dust.

S24/25 – Avoid contact with skin and eyes.

S36/38 – Wear suitable protective clothing and in case of insufficient ventilation, wear suitable respiratory equipment.

S39 – Wear eye/face protection.

S41 – In case of fire and/or explosion do not breathe fumes.

S43 – In case of fire, Never use water on molten salt.

Trade Name: Molten Salt Supply – Original Blend and Butting Salt Blend

15. OTHER INFORMATION**NEPA Rating**

Health: 2
Fire: 0
Reactivity: 0
Other: Oxidizer

HMIS Rating

Health: 2
Fire: 0
Reactivity: 0
Personal Protection: X = Ask your supervisor

ISSUE / REVISION INFORMATION

Prepared By: Will Bridges / Dave Nagy

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