

SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: Brine Solution**Other means of identification****Common name(s),** Salt water, Brine recycle stream, Sodium chloride solution**synonym(s):****SDS number:** NOVA-0087**Recommended use and restriction on use****Recommended use:** Operation of underground storage caverns and for salt manufacturing.**Restrictions on use:** All uses other than the identified.**Manufacturer/Importer/Supplier/Distributor Information****Importer**

Company Name: NOVA Chemicals, Inc.
Address: 1555 Coraopolis Heights Road
Moon Township, PA, USA 15108
Telephone: Product Information: 1-412-490-4063
SDS Information Email: msdsemail@novachem.com

Emergency telephone number:

1-800-561-6682, 1-403-314-8767 (NOVA Chemicals) (24 hours)

1-800-424-9300 (CHEMTREC-USA) (24 hours)

General CommentsThis is **not** a NOVA Chemicals' product.

2. Hazard(s) identification

Hazard Classification**Health Hazards**

Serious Eye Damage/Eye Irritation Category 2A

Label Elements**Hazard Symbol:****Signal Word:** Warning**Hazard Statement:** Causes serious eye irritation.**Precautionary Statements:****Prevention:** Wash hands thoroughly after handling. Wear eye protection/face protection.**Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye

irritation persists: Get medical advice/attention.

Storage: Store locked up.**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.**Other hazards which do not result in GHS classification:** None.**3. Composition/information on ingredients****Mixtures**

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Sodium chloride	Salt	7647-14-5	5 - 26%

* All concentrations are percent by weight.

Additional Information: This product is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).**4. First-aid measures****Inhalation:** Call a POISON CENTER/doctor if you feel unwell.**Ingestion:** Call a POISON CENTER/doctor if you feel unwell.**Skin Contact:** If skin irritation occurs: Get medical advice/attention.**Eye contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.**Most important symptoms/effects, acute and delayed****Symptoms:** Eye irritation.**Indication of immediate medical attention and special treatment needed****Treatment:** For more detailed medical emergency support information, call 1-800-561-6682 or 1-403-314-8767 (24 hours, NOVA Chemicals Emergency Response). Treat symptomatically. Treatment for overexposure should be directed at controlling the symptoms and clinical condition of the patient. After adequate first aid, no further treatment is required unless symptoms reappear.**5. Fire-fighting measures****General Fire Hazards:** This product is not flammable. Product does not burn.**Suitable (and unsuitable) extinguishing media****Suitable extinguishing media:** In case of fire in the surroundings: use appropriate extinguishing media.**Unsuitable extinguishing media:** not applicable**Specific hazards arising from** None. This product is not flammable.

the chemical:

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures:	None.
Special protective equipment for fire-fighters:	Fire-fighters should wear personal protective equipment suitable for the fire conditions and the materials burning.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Isolate area. Keep unauthorized personnel away.
Methods and material for containment and cleaning up:	<p>Wear appropriate personal protective equipment. Do not touch or walk through spilled material. Keep upwind. Keep out of low areas. Stop leak if safe to do so. Contain discharge by booming on water or diking on ground. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.</p> <p>Small Spills: Remove liquid material with approved pumps or vacuum equipment.</p> <p>Large Spills: Isolate, contain, and attempt to recover. Remove liquid material with approved pumps or vacuum equipment. Spill area may be washed down with water, with wash waters collected for testing and proper disposal.</p>

7. Handling and storage

Precautions for safe handling:	Product is slowly corrosive to metal. Handle in properly designed and approved equipment systems. Periodically inspect pipelines and other equipment for integrity and corrosion. Do not ingest or inhale. Avoid contact with skin and eyes. Wash hands thoroughly after handling. Wear eye protection/face protection.
Conditions for safe storage, including any incompatibilities:	Storage area should be clearly identified, well-illuminated and clear of obstruction. Store locked up. Only allow access to authorized persons. Storage ponds and tank areas should be periodically inspected and kept separate from fresh water supply or outlets. Keep away from incompatible materials.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls

Provide adequate ventilation to maintain worker exposure below levels that are irritating to the eyes. Administrative (procedure) controls and use of personal protective equipment may also be required.

Individual protection measures, such as personal protective equipment

General information:

Personal protective equipment (PPE) should not be considered a long-term solution to exposure control. Employer programs to properly select, fit, maintain and train employees to use equipment must accompany PPE. Consult a competent industrial hygiene resource, the PPE manufacturer's recommendation, and/or applicable regulations to determine hazard

potential and ensure adequate protection.

Eye/face protection: Chemical goggles are recommended. If splashing is possible use chemical goggles and a full-face shield. Carefully rinse off contaminated goggles before removing.

Skin Protection
Hand Protection: Chemical resistant gloves.

Skin and Body Protection: Wear chemical-resistant safety footwear with good traction to prevent slipping. Wear work clothes with long sleeves and pants. If splashing or contact with liquid material is possible, consider the need for an impervious overcoat.

Respiratory Protection: None under normal conditions.

Hygiene measures: Ensure that eyewash stations and safety showers are in close proximity to work locations.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	White/clear
Odor:	Odorless
Odor Threshold:	No data available.
pH:	6.5 - 8.5
Melting point/freezing point:	-10 °C (14 °F)
Initial boiling point and boiling range:	> 100 °C (> 212 °F)
Flash Point:	not applicable
Evaporation rate:	No data available.
Flammability (solid, gas):	not applicable
Upper/lower limit on flammability or explosive limits	
Flammability Limit - Upper (%):	not applicable
Flammability Limit - Lower (%):	not applicable
Vapor pressure:	not applicable
Vapor density:	not applicable
Density:	1,200 kg/m ³
Relative density:	1.2 (15 °C (59 °F))
Solubility(ies)	
Solubility in water:	Miscible with water.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	not applicable
Decomposition temperature:	not applicable
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	Product is slowly corrosive to metal.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	None known.

Conditions to avoid:	None known.
Incompatible Materials:	In presence of air, liquid contact or mists will slowly corrode most metals.
Hazardous Decomposition Products:	None known.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	May be irritating to the respiratory tract.
Ingestion:	Ingestion of large quantities of this product may cause irritation of the gastrointestinal tract.
Skin Contact:	Skin contact may lead to skin dryness; mild skin irritant.
Eye contact:	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	Coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
Ingestion:	If very large quantities ingested - nausea, vomiting, dehydration, diarrhea, edema.
Skin Contact:	Dry skin.
Eye contact:	Eye irritation.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	Not classified for acute toxicity based on available data.
Dermal Product:	Not classified for acute toxicity based on available data.
Inhalation Product:	Not classified for acute toxicity based on available data.

Repeated dose toxicity Product: No data available.

Skin Corrosion/Irritation Product: No data available.

Components:
Sodium chloride Mild.

Serious Eye Damage/Eye Irritation Product: Causes serious eye irritation.

Respiratory or Skin Sensitization Product: No data available.

Carcinogenicity**Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** No data available.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:** No data available.**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Components:**Sodium chloride LC 50 (Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), 96 h): 4,747 - 7,824 mg/l Mortality**Aquatic Invertebrates****Product:** No data available.**Components:**Sodium chloride EC 50 (Water flea (*Daphnia magna*), 48 h): 340.7 - 469.2 mg/l Intoxication**Toxicity to Aquatic Plants****Product:** No data available.**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.

Aquatic Invertebrates**Product:** No data available.**Toxicity to Aquatic Plants****Product:** No data available.**Persistence and Degradability****Biodegradation****Product:** No data available.**BOD/COD Ratio****Product:** No data available.**Bioaccumulative potential****Bioconcentration Factor (BCF)****Product:** No data available.**Partition Coefficient n-octanol / water (log Kow)****Product:** No data available.**Mobility in soil:**

When spilled onto soil, brine will behave similar to spilled water. Sodium chloride may leach from soil into groundwater.

Other adverse effects:

A concentrated brine solution (~26% sodium chloride) will dehydrate animal and vegetative species.

13. Disposal considerations**Disposal instructions:**

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. The use, mixing or processing of this product with other materials may alter its properties or hazards.

Contaminated Packaging:

Check local, federal and state environmental regulations prior to disposal.

14. Transport information**DOT**

Not regulated.

15. Regulatory information**US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Serious eye damage or eye irritation

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities.

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations**US. California Proposition 65**

No ingredient requiring a warning under CA Prop 65.

Inventory Status

Canada DSL Inventory List: On or in compliance with the inventory

US TSCA Inventory: On or in compliance with the inventory

16. Other information, including date of preparation or last revision**Issue Date:** 02/09/2022**Revision Information:** 02/09/2022: SDS Update – address updated
03/02/2020: SDS Update**Version #:** 7.1**Abbreviations and acronyms:** ACC = American Chemistry Council; ACGIH = American Conference of Governmental Industrial Hygienists; BOD = Biochemical Oxygen Demand; C = Ceiling; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; COD = Chemical Oxygen Demand; DOT = Department of Transportation; DSL = Domestic Substances List; EC50 = Effective Concentration 50%; EPA = Environmental Protection Agency; GHS = Globally Harmonized System for the Classification and Labelling of Chemicals; HPV = High Production Volume; IARC = International Agency for Research on Cancer; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%; NFPA = National Fire Protection Association; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit; PMCC = Pensky-Martens Closed Cup; PPE = Personal Protective Equipment; RCRA = Resource Conservation and Recovery Act; REL = Recommended Exposure Limit; SARA = Superfund Amendments and Reauthorization Act; SCBA = Self Contained Breathing Apparatus; SDS = Safety Data Sheet; STEL = Short Term Exposure Limit; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average**Further Information:** No data available.**Disclaimer:** ALTHOUGH THE INFORMATION CONTAINED IN THIS DOCUMENT IS PRESENTED IN GOOD FAITH, BASED ON AVAILABLE INFORMATION BELIEVED TO BE RELIABLE AT THE TIME OF PREPARATION OF THIS DOCUMENT, **NOVA CHEMICALS MAKES NO WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION OR THE PRODUCT/MATERIALS DESCRIBED HEREIN, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES AND CONDITIONS (INCLUDING ALL WARRANTIES AND CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). NO FREEDOM FROM INFRINGEMENT OF ANY PATENT OWNED BY NOVA CHEMICALS OR OTHERS IS TO BE INFERRED. THIS INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. PLEASE CONTACT NOVA CHEMICALS FOR THE MOST CURRENT VERSION OF THIS SDS. NOVA CHEMICALS DOES NOT ASSUME RESPONSIBILITY FOR SDS OBTAINED FROM THIRD PARTY SOURCES.****UNLESS SPECIFICALLY AGREED OTHERWISE, NOVA CHEMICALS DOES NOT TAKE RESPONSIBILITY FOR USE, TRANSPORTATION, STORAGE, HANDLING OR DISPOSAL OF THE PRODUCT/MATERIALS DESCRIBED HEREIN.**



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