

Mineral Well Brine

Safety Data Sheet

Issue Date: 03/18/15

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SECTION 1: Product and Company Identification

1.1. Product Identifier

Product name: Mineral Well Brine

1.2. Intended Use of the Product

Use of the substance/mixture: Dust control and ice control on roadways

1.3. Name, Address, and Telephone of the Responsible Party

Michigan Chloride Sales LLC

402 W. Jackson Road

St Louis, MI 48880

www.michiganchloride.com

1.4. Emergency telephone number

1-800-286-7312

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US) Eye Irritant 2A H319

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US):



GHS07

Signal word (GHS-US):

Warning

Hazard statements (GHS-US):

H319 - Causes serious eye irritation.

Precautionary statements (GHS-US):

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.

P280 - Wear eye protection.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	% by Weight	Classification (GHS-US)
Water	(CAS No) 7732-18-5	66-74	Not classified
Calcium Chloride	(CAS No) 10043-52-4	18-22	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
Potassium Chloride	(CAS No) 7447-40-7		Not classified
Sodium chloride	(CAS No) 7647-14-5	4-6	Not classified
Magnesium Chloride	(CAS No) 7786-30-3	3-5	Not classified

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: When symptoms occur: go into open air and ventilate suspected area.

First-aid measures after skin contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical advice if necessary.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical advice if necessary.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries: Eye irritation.

Symptoms/injuries after inhalation: None expected under normal conditions of use.

Symptoms/injuries after skin contact: May cause skin irritation after long exposures, especially on wet skin.

Symptoms/injuries after eye contact: Causes serious eye irritation.

Symptoms/injuries after ingestion: Ingestion may cause nausea, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Does not burn. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Not flammable.

Explosion hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Handle in accordance with good industrial hygiene and safety practice.

6.1.1. For non-emergency personnel

Protective equipment: Use appropriate personal protection equipment (PPE).

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment: Absorb and/or contain spill with inert material, then place in suitable container.

Methods for cleaning up: Clear up spills immediately and dispose of waste safely.

6.4. Reference to other sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

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Incompatible products: Strong acids. Strong bases. Strong oxidizers.

7.3. Specific end use(s)

Dust control and ice control on roadways, road stabilization.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

8.2. Exposure controls

Appropriate engineering controls: Ensure exposure is below occupational exposure limits (where available). Ensure all national/local regulations are observed.

Personal protective equipment: Protective goggles. Gloves.



Hand protection: Wear chemically resistant protective gloves.

Eye protection: Chemical goggles or safety glasses.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Other information: When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Odor: No data available

Color: Clear to straw yellow

pH: 5

Relative evaporation rate (butyl acetate=1): No data available

Melting point: No data available

Freezing point: -20°F

Boiling point: 107 °C (224.6°F)

Flash Point: No data available

Auto-ignition temperature: No data available

Decomposition Temperature: No data available

Flammability (solid, gas): No data available

Vapor pressure: 17mmHg@25°C

Relative vapor density at 20 °C: No data available

Relative density: 1.215 - 1.25 (@25°C)

Solubility: Fully miscible.

Log Pow: No data available

Log Kow: No data available

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Explosive limits: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity Hazardous reactions will not occur under normal conditions. Hygroscopic substance.

Chemical Stability Product is stable under recommended storage and handling conditions.

Possibility Of Hazardous Reactions None at normal use.

Conditions To Avoid Direct sunlight. Extremely high or low temperatures.

Incompatible Materials Strong acids. Strong bases. Strong oxidizers. Calcium Chloride will corrode most metals exposed to air: attack aluminum (and its alloys) and yellow brass: react with sulfuric acid to form hydrogen chloride which is corrosive, irritating, and reactive: give an exothermic reaction with water-reactive materials such as sodium: result in a runaway polymerization reaction with methyl vinyl ether: and, in solution form, react with zinc (galvanizing) to yield hydrogen gas which is explosive. Hazardous Decomposition Products Carbon oxides (CO, CO₂). Upon heating, toxic fumes are formed. (chlorine)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

Calcium chloride (10043-52-4)	
LD50 oral rat	1000 mg/kg
LD50 dermal rat	2630 mg/kg
Magnesium chloride (7786-30-3)	
LD50 oral rat	2800 mg/kg
Sodium chloride (7647-14-5)	
LD50 oral rat	3 g/kg
LD50 dermal rabbit	> 10 g/kg
LC50 inhalation rat (mg/l)	> 42 g/m ³ (Exposure time: 1 h)
Potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified

Symptoms/injuries after inhalation: None expected under normal conditions of use.

Symptoms/injuries after skin contact: May cause skin irritation after long exposures, especially on wet skin.

Symptoms/injuries after eye contact: Causes serious eye irritation.

Symptoms/injuries after ingestion: Ingestion may cause nausea, vomiting and diarrhea.

SECTION 12: Ecological information

12.1. Toxicity

Calcium chloride (10043-52-4)	
LC50 fish 1	10650 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)
EC50 Daphnia 1	52 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Magnesium chloride (7786-30-3)	
LC50 fish 1	4210 mg/l (Exposure time: 96 h - Species: Gambusia affinis [static])
EC50 Daphnia 1	1400 mg/l (Exposure time: 24 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	2200 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)
LC50 fish 2	1970 - 3880 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 2	140 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
Sodium chloride (7647-14-5)	
LC50 fish 1	5560 (5560 - 6080) mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 Daphnia 1	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	340.7 (340.7 - 469.2) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and degradability

Mineral Well Brine	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Mineral Well Brine	
Bioaccumulative potential	Not established.
Calcium chloride (10043-52-4)	
BCF fish 1	(no bioaccumulation)
Sodium chloride (7647-14-5)	
BCF fish 1	(no bioaccumulation)

12.4. Mobility in soil: No additional information available

12.5. Other adverse effects

Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

SECTION 14: Transport information

In accordance with ICAO/IATA/DOT/TDG

14.1. UN number Not regulated for transport.

14.2. UN proper shipping name No data available

14.3. Additional information

Other information: No supplementary information available.

Overland transport Not regulated for transport.

Transport by sea Not regulated for transport.

Air transport Not regulated for transport.

SECTION 15: Regulatory information

15.1. US Federal regulations

Calcium chloride (10043-52-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Magnesium chloride (7786-30-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Sodium chloride (7647-14-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Water (7732-18-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.3. US State regulations

Calcium chloride (10043-52-4)
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
Magnesium chloride (7786-30-3)
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
Sodium chloride (7647-14-5)
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
H302	Harmful if swallowed
H319	Causes serious eye irritation

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. SDS US (GHS HazCom) - US