

# Mineral Well Brine Solution

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product Identifier

**Product name:** Mineral Well Brine Solution

#### 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

Dart Oil & Gas Corporation

135 E. Main Street

P.O. Box 310

Marion, MI 49665

[www.dartoilandgas.com](http://www.dartoilandgas.com)

#### 1.4. Emergency telephone number

**Emergency number** : 231-825-8282

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**Classification (GHS-US)**

Eye Irrit. 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	%	Classification (GHS-US)
Water	(CAS No) 7732-18-5	72	Not classified
Calcium chloride	(CAS No) 10043-52-4	18	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
Sodium chloride	(CAS No) 7647-14-5	6	Not classified
Magnesium chloride	(CAS No) 7786-30-3	4	Not classified

Full text of H-phrases: see section 16

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### 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.

**First-aid measures after ingestion:** Rinse mouth. Do NOT induce vomiting.

#### 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.

## 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	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
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.

**Chemical Stability** Product is stable.

**Possibility Of Hazardous Reactions** Hazardous polymerization will not occur.

**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,

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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, CO<sub>2</sub>). Upon heating, toxic fumes are formed. (chlorine)

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

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

**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

<b>Calcium chloride (10043-52-4)</b>	
LC50 fish 1	10650 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	52 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Magnesium chloride (7786-30-3)</b>	
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])
<b>Sodium chloride (7647-14-5)</b>	
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

<b>Mineral Well Brine Solution</b>	
Persistence and degradability	Not established.

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### 12.3. Bioaccumulative potential

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

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

### 15.3. US State regulations

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

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### 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