

# MATERIAL SAFETY DATA SHEET – Liquid Gold

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## Section I – Product and Company Identification



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EMERGENCIES: CALL (800) 424-9300 (CHEMTREC)  
HEALTH EMERGENCIES: CONTACT YOUR LOCAL POISON CENTER



**Common name:** MgCl<sub>2</sub> Brine      **Formula:** MgCl<sub>2</sub>·H<sub>2</sub>O      **Synonym:**      **Use:** Industrial -Chemical

## Section II – Composition/Information on Ingredients

Chemical Name(s)	CAS No.	Exposure Limits								% by Weight
		OSHA PEL		TLV - TWA		STEL		CEIL		
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
Magnesium Chloride	7786-30-3									28 – 35

## Section III – Hazard Identification

**Potential Acute Health Effects:** May cause irritation.

**Eyes and Skin:** Mild irritation, especially in open wounds.

**Inhalation:** Exposure to high dust concentrations may cause irritation of mucous membranes.

**Ingestion:** A large body load may cause vomiting, diarrhea, cramps, tingling in hands and feet, weak pulse, and circulatory disturbances.

**Potential Chronic Health Effects:** None Established

**Carcinogenicity:** IARC Monograph   No      NTP:   No      OSHA:   No  

**Lists:**

## Section IV – First Aid Measures

**Eyes:** Flush with water, including under upper & lower lids, for at least 15 minutes. Get medical attention if pain and irritation persists.

**Skin:** Wash thoroughly with water. Obtain advise if rash develops.

**Ingestion:** Administer water if patient is conscious. Ingesting MgCl<sub>2</sub> brine will usually cause purging of the stomach by vomiting. Get Medical attention.

**Inhalation:** Remove to fresh air. If discomfort persists, get medical attention.

## Section V – Fire Fighting Measures

**Flash Point:**   None        **Auto-ignition Temperature:**   Not Applicable  

**Lower Explosive Limit:**   Not Applicable        **Upper Explosive Limit:**   Not Applicable  

**Unusual Fire and Explosion Hazards:** When subjected to extremely high temperatures, it may release small quantities of chlorine gas.

**Extinguishing Media:** As required for surrounding fire. MgCl<sub>2</sub> brine is non-flammable and does not support combustion.

### Special Firefighting

**Procedures and Equipment:** Wear full protective clothing and self-contained breathing apparatus. As this material is virtually non-flammable wear PPE sufficient to fight surrounding fire.

**Section VI – Accidental Release Measures**

<b>Small Spill:</b>	Absorption and proper disposal with spill control materials.
<b>Large Spill:</b>	Collect with appropriate equipment. If on a hard surface, absorb with spill control materials and dispose of soaked materials appropriately. If on soil, remove and collect any soil dampened by the spill.
<b>Release Notes:</b>	MgCl <sub>2</sub> brine is highly soluble and can be quickly diluted below the toxic level by relatively large amounts of water. MgCl <sub>2</sub> brine which has entered a small non-permanent pond should be removed by pumping the pond dry. If spill could potentially enter any waterway, including intermittent dry creeks, contact the local authorities. If in the U.S., contact the US COAST GUARD NATIONAL RESPONSE CENTER toll free number, 800-424-8802. In case of accident or road spill notify: CHEMTREC IN USA AT 800-424-9300; CANUTEC in Canada at 613-996-6666 CHEMTREC in other countries at (International code)+1-703-527-3887.
<b>Comments:</b>	See Section XIII for disposal information and Section XV for regulatory requirements. Large and small spills may have a broad Definition depending on the user's handling system. Therefore, the spill category must be defined at the point of release by technically qualified personnel.

**Section VII – Handling and Storage**

<b>Ventilation:</b>	Local exhaust to reduce any moisture concentrations is advised but not required.
<b>Handling:</b>	Avoid generating spills by excessive or unnecessary movement.
<b>Storage:</b>	Store in a dry location. Avoid contact with aluminum or carbon steel to minimize corrosion

**Section VIII – Exposure Controls/Personal Protection**

<b>Engineering Controls:</b>	May be necessary to minimize leak actions.
<b>Personal Protection:</b>	
<b>Eye Protection:</b>	Use tight-fitting safety goggles.
<b>Protective Clothing:</b>	Gloves, long sleeve shirts and long pants. Launder work clothing regularly
<b>Respiratory Protection:</b>	NIOSH approved dust respirators until engineering controls are implemented.
<b>Other Protective Clothing or Equipment:</b>	Optional

**Section IX – Physical and Chemical Properties**

<b>Appearance/Color/Odor:</b>	Clear liquid with a slightly briny odor
<b>Melting Point/Range:</b>	-13°F
<b>Solubility in Water:</b>	Miscible
<b>Specific Gravity:</b>	1.3 (H <sub>2</sub> O = 1)
<b>Vapor Density:</b>	Not Applicable
<b>Bulk Density:</b>	See Specific Gravity
<b>PH:</b>	7
<b>Viscosity:</b>	Not applicable
<b>Boiling Point:</b>	244.6 °F
<b>Boiling Point/Range:</b>	244.6 °F
<b>Vapor Pressure (mmHg):</b>	Not Applicable
<b>Molecular Weight:</b>	
<b>% Volatiles:</b>	< 0.5
<b>Evaporation Rate:</b>	Not Available

**Product Name: Liquid Gold**

**Page 3 of 4**

### **Section X – Stability and Reactivity**

**Stability:** Stable

**Hazardous** Will not occur

**Polymerization:**

**Conditions to Avoid:** None

**Materials to Avoid (Incompatibilities):** Contact with strong acid may produce hydrogen chlorine gas; contact with hot nitric acid may produce toxic nitrosyl chloride.

**Hazardous Decomposition** None

**Products:**

### **Section XI Toxicological Information**

**Significant Routes of Exposure:** Eyes, skin, inhalation, ingestion

**Toxicity to Animals:** Oral LD<sub>50</sub> (rat): 2800 mg/kg

**Special Remarks On Toxicity to animals:** Based on toxicity data for another salt compound (i.e. potassium nitrate). Not expected to be toxic by dermal exposure as defined by OSHA

**Other Effects on Humans:** None known.

**Special Remarks On Chronic Effects On Humans:** Not reported to be carcinogenic mutagenic, teratogenic or allergenic.

**Special Remarks On other Effects on Humans:** None

### **Section XII – Ecological Information**

**Ecotoxicity:** Not Established. Breakdown of MgCl<sub>2</sub> forms ions commonly found in nature.

**Environmental Fate:** Miscible in water and disassociates into Mg and Cl ions. Will remain in solution until solubility product reached. Ions may be absorbed by plants or by animals ingesting water containing salt.

**Toxicity:** Non-toxic to aquatic organisms as defined by USEPA

**Degradation:** Chloride and magnesium ions.

### **Section XIII – Disposal Considerations**

**Product Disposal:** Uncontaminated product may be used as dust suppressant. Otherwise, dispose according to Federal State or Provincial regulations In a landfill approved to receive salt.

**General Comments:** Because of its solubility, Liquid Gold should not be disposed of in a location where run-off will escape.

**Product Name: Liquid Gold**

**Page 4 of 4**

**Section XIV – Transportation Information**

	<b>USDOT</b>	<b>TDG - Canada</b>
<b>Proper Shipping Name:</b>	Not Regulated	Not Regulated
<b>Hazard Class:</b>		
<b>Identification Number:</b>		
<b>Packing Group (Technical Name)</b>		
<b>Labeling/Placarding:</b>		
<b>Authorized Packaging:</b>		
<b>Notes:</b>		
<b>European Transportation:</b>		

**Section XV – Regulatory Information**

**UNITED STATES:**

**SARA Hazard Category:** This product has been reviewed according to the EPA Hazard Categories promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

**Fire:** No **Pressure Generating:** No **Reactivity:** No **Acute:** No **Chronic:** No

**40 CFR Part 355 – Extremely Hazardous Substances:**

**40 CFR Part 370 – Hazardous Chemical Reporting:**

**All intentional ingredients listed on the TSCA inventory.**

**SARA Title III Information:** This product contains the following substances subject to the reporting requirements of Title III(EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<b>Chemical</b>	<b>CAS No.</b>	<b>Percent by Weight</b>	<b>CERCLA RQ (lbs.)</b>	<b>SARA (1986) Reporting</b>		
				<b>311</b>	<b>312</b>	<b>313</b>
Magnesium Chloride	7789-30-3	28 – 30	NA	No	No	No

**CERCLA/Superfund, 40 CFR Parts 117,302:** If this product contains components subject to substances designated a **CERCLA Reportable Quantity (RQ) Substances**, it will be designated in the above table with the **RQ** value in pounds. If there is a release of **RQ Substance** to the environment, notification to the National Response Center, Washington D.C. (1-800-424-8802) is required.

**CANADA:**

**WHMIS Hazard Symbol and Classification:** Not controlled

**Ingredient Disclosure List:** This product does not contain ingredient(s) on this list.

**Environmental Protection:** All intentional ingredients are listed on the DSL (Domestic Substance List).

**Section XVI – Other Information**

**NFPA Hazard Rating:** Health 1 Fire 0 Reactivity 0 Special Hazards \_\_\_\_\_

**0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme**

**Comments:** None

**Section(s) changed since last revision:** All, New Format and new ecotoxicity information.

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