



## Material Safety Data Sheet (MSDS)

### Calcium Bromide

**Product Name:** Calcium Bromide

**Chemical Formula:**  $\text{CaBr}_2$

**CAS Number:** 7789-41-5

**EC Number:** 232-164-6

**Recommended Use:** Industrial chemical, oilfield chemical, completion fluids, workover fluids, clear brine fluids, and specialty chemical applications.

### 1. Identification

**Product Name:** Calcium Bromide

**Chemical Formula:**  $\text{CaBr}_2$

**CAS Number:** 7789-41-5

#### Recommended Uses:

- Oil & gas drilling
- Completion fluids
- Workover fluids
- Clear brine fluids
- Industrial chemical manufacturing
- Laboratory and industrial applications

### 2. Hazard Identification

#### GHS Classification

The product may cause eye and skin irritation. Dust from the powder may irritate the respiratory tract.

#### Signal Word



## Warning

### Hazard Statements

- Causes serious eye irritation.
- May cause mild skin irritation.
- Dust may cause respiratory irritation.

### Precautionary Statements

- Avoid breathing dust or mist.
- Wear suitable protective equipment.
- Wash thoroughly after handling.
- Keep containers tightly closed.

## 3. Composition / Information on Ingredients

| Component                            | CAS Number | Concentration                                    |
|--------------------------------------|------------|--------------------------------------------------|
| Calcium Bromide (CaBr <sub>2</sub> ) | 7789-41-5  | ≥98% (Powder) or as specified for solution grade |

## 4. First Aid Measures

### Eye Contact

Immediately flush eyes with plenty of clean water for at least 15 minutes while holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

### Skin Contact

Wash the affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Obtain medical advice if irritation develops.

### Inhalation

Move the affected person to fresh air. Keep the individual comfortable for breathing. Seek medical attention if symptoms continue.



## Ingestion

Rinse the mouth with water. Do not induce vomiting unless instructed by medical personnel. Seek immediate medical advice.

## 5. Fire-Fighting Measures

### Suitable Extinguishing Media

Use extinguishing media appropriate for the surrounding fire.

### Specific Hazards

- Product is not combustible.
- Heating may produce irritating bromine-containing fumes.

### Protective Equipment for Firefighters

Wear self-contained breathing apparatus (SCBA) and full protective clothing.

## 6. Accidental Release Measures

### Personal Precautions

- Wear appropriate PPE.
- Avoid generating dust.
- Ensure adequate ventilation.

### Environmental Precautions

- Prevent large quantities from entering drains, waterways, or soil where required by local regulations.

### Cleanup Methods

- Sweep or collect powder carefully without creating dust.
- Absorb liquid spills with inert material.
- Place waste in suitable labeled containers for disposal.



## 7. Handling and Storage

### Handling

- Avoid contact with eyes and skin.
- Avoid inhaling dust or mist.
- Use good industrial hygiene practices.
- Wash hands thoroughly after handling.

### Storage

- Store in a cool, dry, and well-ventilated area.
- Keep containers tightly sealed.
- Protect powder from moisture.
- Keep away from incompatible materials.

## 8. Exposure Controls / Personal Protection

### Engineering Controls

- Provide adequate ventilation.
- Use local exhaust ventilation where dust is generated.

### Personal Protective Equipment

#### Eye Protection

- Chemical safety goggles

#### Hand Protection

- Chemical-resistant gloves

#### Skin Protection

- Protective clothing

#### Respiratory Protection

- Wear an approved respirator if airborne dust exceeds occupational exposure limits.





## 9. Physical and Chemical Properties

| Property         | Typical Value                            |
|------------------|------------------------------------------|
| Appearance       | White crystalline powder or clear liquid |
| Odor             | Odorless                                 |
| Chemical Formula | CaBr <sub>2</sub>                        |
| Molecular Weight | 199.89 g/mol                             |
| CAS Number       | 7789-41-5                                |
| Solubility       | Highly soluble in water                  |
| pH               | Depends on concentration                 |
| Density          | Depends on concentration                 |
| Flash Point      | Not applicable                           |
| Flammability     | Non-flammable                            |

## 10. Stability and Reactivity

### Chemical Stability

Stable under recommended storage conditions.

### Conditions to Avoid

- Excess moisture (powder)
- Excessive heat
- Contamination

### Incompatible Materials

Strong oxidizing agents and strong acids.

### Hazardous Decomposition Products

Heating or decomposition may produce bromine-containing fumes.



## 11. Toxicological Information

### Likely Routes of Exposure

- Eye contact
- Skin contact
- Inhalation
- Ingestion

### Potential Health Effects

#### Eyes

May cause irritation, redness, and discomfort.

#### Skin

May cause mild irritation after prolonged contact.

#### Inhalation

Dust or mist may irritate the nose, throat, and respiratory tract.

#### Ingestion

May cause gastrointestinal discomfort.

## 12. Ecological Information

- Avoid uncontrolled release into the environment.
- Large releases may affect aquatic systems due to increased bromide concentrations.
- Dispose of material according to local environmental regulations.



## 13. Disposal Considerations

Dispose of unused product, contaminated packaging, and cleanup materials in accordance with applicable local, regional, and national regulations.

## 14. Transport Information

Transport regulations vary by product concentration and destination.

- UN Number: Refer to the latest SDS for the supplied grade.
- Proper Shipping Name: Refer to applicable transport regulations.
- Transport Class: Verify according to ADR, IMDG, IATA, or DOT requirements.
- Packing Group: As applicable.

## 15. Regulatory Information

Comply with all applicable local, national, and international chemical regulations.

Users should consult the latest regulatory requirements for their region before transportation, storage, or use.

## 16. Other Information

The information in this MSDS is provided in good faith and is believed to be accurate at the time of publication. It is intended as general guidance for the safe handling, storage, transportation, and use of Calcium Bromide. The data should not be interpreted as a guarantee of specific product properties or suitability for a particular application. Users are responsible for determining the product's fitness for their intended use and for complying with all applicable regulations.

Always consult the latest manufacturer-issued Safety Data Sheet (SDS) before handling or using the product.