

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

### 1.1. GHS product identifier

**Product Name – Calcium Bromide Solution**

### 1.2. Other means of identification

**Synonyms – None**

### 1.3. Recommended use of the chemical and restrictions on use

Recommended Use – Additive Brine

Uses advised against – No information available.

### 1.4. Supplier's detail

#### **Supplier Address**

Intech Organics Limited

Plot No – 27, Sector – 34

Gurgaon | Haryana – 122004

Email: info@intech.in

Web: [www.intech.in](http://www.intech.in)

### 1.5. Emergency telephone number

**Emergency Telephone Number – CHEMTREC: +1-800-424-9300 | Outside US: +91-124-4407000**

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)


Serious Eye Damage/Eye Irritation	Category 1 (H318)
-----------------------------------	-------------------

HS/HTS Code: 28275900 – 28275990

### 2.2. GHS Label elements, including precautionary statements

Labelling – Not required

#### **Emergency Overview**

<b>Signal Word</b> <b>Hazard Statements</b>	Danger Causes serious eye damage H318	
--	--	---

**SAFETY DATA SHEET**

<b>Appearance</b>	Colorless to Light yellow, Amber
<b>Physical State</b>	Liquid
<b>Odour</b>	Odourless

**2.3. Precautionary Statements**

<b>Prevention</b>	Wear eye/face protection.
<b>General Advice</b>	None
<b>Eyes</b>	IF IN EYES: Rinse with water for a few minutes, being cautious. If contact lenses are present and easily removed, do so. Rinse again. Immediately call a POISON CENTER or doctor/physician.
<b>Storage</b>	None
<b>Disposal</b>	None
<b>Hazard Not Otherwise Classified (HNOC)</b>	Not applicable
<b>Other information</b>	may irritate the respiratory system. might irritate skin. Gastrointestinal discomfort, nausea, vomiting, and diarrhea may result from ingestion.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Chemical Name</b>	<b>CAS-No</b>	<b>Weight %</b>	<b>Trade secret</b>
Calcium bromide	7789-41-5	45-56.5	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES****4.1. Description of necessary first-aid measures**

<b>Eye Contact</b>	Flush with lots of water right away. Take off your contact lenses after the first flush, and keep flushing for at least fifteen minutes. When you rinse, keep your eyes wide open. Avoid rubbing the injured region. Get medical help or advice right away.
<b>Skin Contact</b>	Eliminate all contaminated clothing and footwear right away by washing with lots of water and soap. Before reusing, wash any compromised clothing. Contact a doctor if the skin irritation doesn't go away.
<b>Inhalation</b>	Move to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	NEVER try to make someone throw up. After washing your mouth with water, make sure you drink a lot of it. Never administer anything by mouth to someone who is unconscious. Seek medical assistance.

**SAFETY DATA SHEET****4.2. Most important symptoms/effects, acute and delayed.**

Most Important Symptoms/Effects Burning. Red eyes. Tearing. Serious eye irritation or damage.

**4.3. Indication of immediate medical attention and special treatment needed, if necessary**

<b>Notes to Physician</b>	Treat symptomatically.
---------------------------	------------------------

**5. FIRE-FIGHTING MEASURES****5.1. Suitable Extinguishing Media**

Make use of extinguishing techniques that are suitable for the surrounding environment and local conditions.

Unsuitable Extinguishing Media No information available.

**5.2. Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous Combustion Products: Hydrogen bromide. Bromine.

**5.3. Explosion Data**

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None

**5.4. Protective Equipment and Precautions for Firefighters**

Wear complete protective gear, MSHA/NIOSH-approved or equivalent, and self-contained breathing equipment pressure demand, just like you would in any fire.

**6. ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment, and emergency procedures**

<b>Personal Precautions</b>	Make sure there is enough airflow. Staff should be evacuated to safe areas. Keep individuals upwind and away from any spills or leaks. Put on personal safety gear. Steer clear of skin, eyes, and clothing contact. Steer clear of mists or fumes. Avoid stepping on or touching spilled material.
-----------------------------	---

**6.2. Environmental Precautions**

<b>Environmental Precautions</b>	See Section 12 for additional Ecological Information.
----------------------------------	---

## SAFETY DATA SHEET

### 6.3. Methods and materials for containment and cleaning up

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Cleaning Up</b>	Use an inert, absorbent substance to absorb. Gather and place in appropriately labeled containers.

## 7. ACCIDENTAL HANDLING AND STORAGE

### 7.1. Precautions for safe handling

<b>Handling</b>	Make sure there is enough airflow. Put on personal safety gear. Steer clear of skin, eyes, and clothing contact. Steer clear of mists or fumes.
-----------------	---

### 7.2. Conditions for safe storage, including any incompatibilities

<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Incompatible Products</b>	Acids, Monovalent salts.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure Limits

Substances	CAS Number	EU	UK	Netherlands	France
Calcium bromide	7789-41-5	Not applicable	10 mg/m <sup>3</sup>	Not applicable	Not applicable

Substances	CAS Number	Germany	Spain	Portugal	Finland
Calcium bromide	7789-41-5	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Calcium bromide	7789-41-5	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Calcium bromide	7789-41-5	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Calcium bromide	7789-41-5	Not applicable	Not applicable	Not applicable	Not applicable

**SAFETY DATA SHEET**

**Derived No Effect Level (DNEL) Worker**

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short-term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure -local effects, Dermal	Acute / short term exposure -local effects, Dermal	Long-term exposure -systemic effects, Oral	Acute / short-term exposure - local effects, Oral	Hazards for the eyes - local effects
Calcium Bromide	1.4 mg/m <sup>3</sup>	Not available	Not available	Not available	0.073 mg/kg bw/d	Not available	Not available	0.073 mg/kg bw/d	Not available	Not available

**General Population**

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short-term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure -local effects, Dermal	Acute / short term exposure -local effects, Dermal	Long-term exposure -systemic effects, Oral	Acute / short-term exposure - local effects, Oral	Hazards for the eyes - local effects
Calcium Bromide	0.25 mg/m <sup>3</sup>	Not available	Not available	Not available	0.073 mg/kg bw/d	Not available	Not available	0.073 mg/kg bw/d	Not available	Not available

Exposure Guidelines	There are no hazardous elements in this product that have occupational exposure limits set by regulatory organizations.
---------------------	---

**8.2. Appropriate engineering controls**

<b>Engineering Measures</b>	Showers Eyewash stations Ventilation systems
-----------------------------	--

**8.3. Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	Tightly fitting safety goggles. If splashes are likely to occur, wear: Face shield.
<b>Skin and Body Protection</b>	
<b>Respiratory Protection</b>	

Impervious gloves. Lab coat and/or apron.  
Wearing respiratory protection that has been approved by NIOSH and MSHA is advised if exposure limits are exceeded or irritation is experienced. In cases where the concentration of airborne contaminants is significant, positive pressure supplied air respirators might be necessary. Current local rules must be followed when providing respiratory protection.

## SAFETY DATA SHEET

<b>Hand Protection</b>	Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Nitrile gloves. ( $\geq 0.35$ mm thickness). This information is based on literature references and on information provided by glove manufacturers or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 because of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed, then the gloves should be replaced. Manufacturer's directions for use Should be observed.
<b>Hygiene Measures</b>	Observe safe handling procedures and excellent industrial hygiene when handling. Use this product without eating, drinking, or smoking anything. Steer clear of food, beverages, and animal feed. Before taking a break and right away after handling the lotion, wash your hands and face. Before reusing, remove and wash any affected garments. Maintain a clean work area, clothes, and equipment on a regular basis.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9.1. Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Appearance</b>	Light yellow Amber
<b>Odor</b>	Odourless	<b>Odor Threshold</b>	No information available

<b>Property</b>	<b>Values</b>	<b>Remarks/ - Method</b>
<b>pH</b>	7	None known
<b>Melting Point/Range</b>	No data available	None known
<b>Boiling Point/Boiling Range</b>	812 °C	for 53%
<b>Flash Point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limits in Air</b>		
<b>Upper Flammability Limit</b>	No data available	
<b>Lower Flammability Limit</b>	No data available	
<b>Vapor Pressure</b>	No data available	
<b>Vapor Density</b>	No data available	None known
<b>Specific Gravity</b>	1.70 @ 70F (21C)	
<b>Water Solubility</b>	Soluble in water	
<b>Solubility in Other Solvents</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition Temperature</b>	No data available	None known

**SAFETY DATA SHEET**

<b>Decomposition Temperature</b>	No data available	None known
<b>Viscosity</b>	No data available	None known
<b>Flammable Properties</b>	Not Flammable	
<b>Explosive Properties</b>	No data available	
<b>Oxidizing Properties</b>	No data available	
<b>VOC Content (%)</b>	No data available	

**10. STABILITY AND REACTIVITY**

<b>Reactivity</b>	No data available
<b>Chemical Stability</b>	Stable under recommended storage conditions
<b>Possibility of Hazardous Reactions</b>	None under normal processing
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur
<b>Conditions to Avoid</b>	Protect from moisture
<b>Incompatible Materials</b>	Acids, Potassium & Monovalent salts
<b>Hazardous Decomposition Products</b>	Hydrogen Bromide & Bromine

**11. TOXICOLOGICAL INFORMATION****11.1. Information on likely routes of exposure**

<b>Inhalation</b>	Based on components: May cause irritation of respiratory tract
<b>Eye Contact</b>	Based on components: May cause serious eye damage. May cause irreversible damage to eyes
<b>Skin Contact</b>	Based on components: May cause irritation
<b>Ingestion</b>	Based on components: May cause gastrointestinal irritation, nausea, vomiting and diarrhoea

**11.2. Component Information**

<b>Chemical Name</b>	<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LC50 Inhalation</b>
Calcium Bromide	= 2447 mg/kg (Rat)	>2000mg/kg (Rabbit)	> 203mg/L (Rat, aerosol, 1 hr)

**11.3. Symptoms Related to the Physical, Chemical and Toxicological Characteristics**

<b>Symptoms</b>	No Information Available
-----------------	--------------------------

**11.4. Delayed And Immediate Effects And Also Chronic Effects From Short And Long Term Exposure**

**SAFETY DATA SHEET**

<b>Sensitization</b>	Showers Eyewash stations Ventilation systems
<b>Mutagenic Effects</b>	No Information Available
<b>Mutagenic Effects</b>	No Information Available
<b>Carcinogenicity</b>	Contains no ingredients above reportable quantities listed as a carcinogen
<b>Reproductive Toxicity</b>	No Information Available
<b>STOT – single exposure</b>	No Information Available
<b>STOT – repeated exposure</b>	No Information Available
<b>Aspiration Hazard</b>	No Information Available

**12. ECOLOGICAL INFORMATION**

**12.1. Ecotoxicity** The environmental impact of this product has not been fully investigated

<b>Chemical Name</b>	<b>Toxicity to Algae</b>	<b>Toxicity to Fish</b>	<b>Toxicity to Microorganisms</b>	<b>Daphnia Magna (Water Flea)</b>
Calcium Bromide 7789-41-5	EC50 (48h) > 440 mg/L (Growth rate) (Skeletonema costatum) (similar substance)	LC50 (96h) > 440 mg/L (Scophthalmus maximus) (similar substance) LC50 (96h) > 1000 mg/L (Lepomis macrochirus) (similar substance) NOEC (124d) 10 mg/L (Poecelia reticulata) (similar substance)	EC50 (3h) > 1000 mg/L (activated sludge, domestic) (similar substance)	EC50 (48hr): >105mg/L

**12.2. Persistence and Degradability** No Information Available

**12.3. Bioaccumulation** No Information Available

**12.4. Other Adverse Effects** No information Available

**13. DISPOSAL CONSIDERATIONS**

<b>Waste Disposal Methods</b>	According to federal laws, this substance as given does not constitute a hazardous waste (40 CFR 261). If chemical additions are made to this substance, if it is mixed with or otherwise comes into contact with a hazardous waste, or if the transformed material is a hazardous waste, then this material may turn into a hazardous waste. For additional requirements, refer to the relevant state, regional, or local regulations.
<b>Contaminated Packaging</b>	Do not re-use empty containers



**SAFETY DATA SHEET****14. TRANSPORT INFORMATION**

<b>DOT</b>	Not Regulated
<b>IMDG</b>	Not Regulated
<b>IATA</b>	Not Regulated
<b>RID</b>	Not Regulated
<b>ADR</b>	Not Applicable
<b>UN No</b>	Not Regulated
<b>UN Proper Shipping Name</b>	Not Regulated
<b>Transport Hazard Class</b>	Not Applicable
<b>Packing Group</b>	Not Applicable
<b>Environmental Hazards</b>	Not Applicable
<b>Specific Precautions for Users</b>	None
<b>Transport in Bulk</b>	Not Applicable

**15. REGULATORY INFORMATION**

<b>International Inventories</b> <b>TSCA</b> <b>DSL</b>	Complies Complies
<b>Legend</b> <b>TSCA</b> <b>DSL/NDSL</b>	US Toxic Substances Control Act Section 8(b) Inventory Canadian Domestic Substances List/Non-Domestic Substances List
<b>U.S. Federal Regulations</b>	Superfund Amendments and Reauthorization Act of 1986, Section 313 of Title III. There are no substances in this product that need to be reported in accordance with the Act or Title 40, Part 372 of the Code of Federal Regulations.
<b>SARA 311/312 Hazard Categories</b> <b>Acute Health Hazard</b> <b>Chronic Health Hazard</b> <b>Fire Hazard</b> <b>Sudden Release of Pressure</b> <b>Reactive Hazard</b>	Yes No No No No
<b>Clean Water Act</b>	This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**SAFETY DATA SHEET**

<b>CERCLA</b>	According to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302), the Superfund amendments, and the regulations governing the release of this material, this material as delivered does not contain any compounds that are classified as hazardous.
<b>U.S. State Regulations California Proposition 65 U.S. EPA Label Information</b>	This product does not contain any Proposition 65 Chemicals EPA Pesticide Registration Number – Not Applicable

**16. OTHER INFORMATION**

NFPA	Health Hazard 1	Flammability 0	Instability 0	Physical and Chemical Hazard -
HMIS	Health Hazard 1	Flammability 0	Physical Hazard 0	Personal Protection X

<b>Prepare By</b>	INTECH Organics Limited - <a href="mailto:info@intech.in">info@intech.in</a>
<b>Issue Date</b>	12-June-2024
<b>Revision Date</b>	12-June-2024
<b>Revision Note</b>	

**16.1. General Disclaimer:**

To the best of our knowledge, information, and belief on the date of publishing, the data on this SDS is accurate. The provided information should not be construed as a guarantee or a quality specification; rather, it is intended simply as a reference for safe handling, use, processing, storage, transit, disposal, and release. Unless otherwise indicated in the text, the information is limited to the particular substance designated and may not apply to that material when used alone, in conjunction with other materials, or in any procedure.

**END OF SAFETY DATA SHEET**