



MATERIAL SAFETY DATA SHEET

CALCIUM BROMIDE SOLUTION

MSDS DATE: 28/1/2021

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product name: Calcium Bromide Solution

Application: Drilling Fluid and Completion Fluid Medium

Manufacturer: Tianfu Chemistry Science and Technology Co.,Ltd.

Lingang Industrial Park, Binhai Development Zone, Weifang, 262737, P.R. China

E-mail: sales@wtfchem.com

Emergency phone: China 400-9977-666 (24 Hour)

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	CONCENTRATION	SYMBOL	RISK PHRASE
Calcium Bromide	7789-41-5	45 – 55%	Xi	R-36

SECTION 3: HAZARDS IDENTIFICATION

May cause irritation to skin, eyes and respiratory system. Do not ingest. Avoid breathing mists, contact with eyes, skin and clothing. May be harmful if swallowed.

SECTION 4: FIRST AID MEASURES

INHALATION - Move the exposed person to fresh air at once. Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. If not breathing, give artificial respiration; if breathing is difficult, give medical oxygen. Get medical attention immediately.

INGESTION - Do not induce vomiting. Rinse mouth thoroughly with water and give large amounts of milk or water only if victim is conscious. Get medical attention immediately.

SKIN CONTACT - Remove contaminated clothing immediately and wash skin with soap and water for at least 15 minutes. Get medical attention immediately.

EYE CONTACT - Make sure to remove any contact lenses from the eyes before rinsing. Flush immediately with plenty of water, holding the eyelids open. Continue to rinse for at least 15 minutes. Seek medical attention immediately.

NOTES TO PHYSICIAN - Treat symptomatically and supportively. Antidote should be administered by qualified medical personnel. No specific antidote for calcium bromide had

been recommended. The following antidote has been recommended for bromide poisoning. However, the decision as to whether the severity of poisoning requires administration of any antidote and actual dose required should be made by qualified medical personnel.

Bromide Poisoning: Give sodium chloride, 1 gram orally every hour in water or as salt tablets; for severe involvement, in which oral medication is impossible, give normal saline, 1 liter every 8 hours intravenously to a maximum of 2 liters daily. Sodium chloride therapy must be continued until the blood bromine level drops below 50 mg/dL. Simultaneous administration of diuretics is also useful (Driesbach, Handbook of Poisoning, 12th Ed.).

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA – Use water spray, dry chemical, carbon dioxide, or chemical foam. Use media appropriate for surrounding fire.

FIRE-FIGHTING PROCEDURES – Move container(s) from fire area if you can do so without risk. Apply cooling water to sides of containers that are exposed to flames until well after the fire is out. Extinguish fire using agent suitable for type of surrounding fire and/or chemicals. Avoid breathing vapors. Keep upwind. Dike area to prevent runoff and contamination of water sources.

PROTECTIVE MEASURES IN FIRE – Self-contained breathing apparatus in positive pressure demand and full protective clothing must be worn in case of fire.

PRODUCTS OF COMBUSTION – Thermal decomposition products may include toxic and corrosive fumes of bromine and hydrogen bromide. Product may react with some metals (aluminum, zinc, tin, etc.) to release flammable hydrogen gas.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS – Wear protective clothing as described in Section 8 of this safety data sheet.

SPILL CLEAN UP METHODS – Do not touch spilled material. Stop leak if you can do so without risk. For small spills, cover with dry earth, dry sand or other non-combustible material. Place material in covered, clean, dry container for disposal. For larger spills, dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry. Minimize air borne spreading of vapors. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7: HANDLING AND STORAGE

USAGE PRECAUTIONS – Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid ingestion and inhalation. Do not get in eyes. Avoid contact with skin and clothing.

STORAGE PRECAUTIONS – Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances with shelf life for two years.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE EQUIPMENT:



ENGINEERING MEASURES – Provide adequate general and local exhaust ventilation in work areas. Provide eyewash station and safety shower.

RESPIRATORY EQUIPMENT – A respirator is not indicated under normal operating conditions. Use of a NIOSH approved respirator should be used based on contamination levels found in the area.

HAND PROTECTION – Wear appropriate chemical-resistant gloves to prevent any possibility of skin contact.

EYE PROTECTION – Wear splash-proof chemical safety goggles to prevent any possibility of eye contact.

OTHER PROTECTION – Wear appropriate clothing to prevent any possibility of skin contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, colorless to light yellow liquid

ODOR: Odorless

BOILING POINT: 128°C (262°F) for 53% solution

SPECIFIC GRAVITY: 1.70 @ 25°C

SOLUBILITY: Soluble in water

SECTION 10: STABILITY AND REACTIVITY

STABILITY – Stable under normal temperature conditions and recommended use.

MATERIALS TO AVOID – Strong oxidizing agents and strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS – Thermal decomposition products may include toxic and corrosive fumes of hydrogen bromide and/or bromine.

SECTION 11: TOXICOLOGICAL INFORMATION

INHALATION – Inhalation may cause irritation to mucous membranes and respiratory system. Additional effects may include coughing and shortness of breath.

INGESTION – Ingestion may cause abdominal spasms and nausea. Overdose may cause gastrointestinal tract or cardiovascular irregularities.

SKIN CONTACT – Single, short exposure not likely to cause significant skin irritation. However, direct contact with solution may cause irritation, possibly severe. Additional effects may include blistering, erythema, exfoliation, ulceration, necrosis, and scarring.

EYE CONTACT – May cause irritation of eyes with redness and/or pain and superficial injury. Additional effects may include tearing and eye discharge.

ACUTE TOXICITY -

LD50: 740 mg/kg, mouse, interperitoneal

LD50: 1580 mg/kg, mouse, subcutaneous

SECTION 12: ECOLOGICAL INFORMATION

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water.

SECTION 14: TRANSPORT INFORMATION

GENERAL - The product is not covered by international regulation (DOT, TDG, IMDG, IATA-DGR) on the transport of dangerous goods.

SECTION 15: REGULATORY INFORMATION

LABELLING:



Xi – Irritant.

Risk Phrases:

R36 – Irritating to eyes.

Safety Phrases:

S25 – Avoid contact with eyes.

S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

SECTION 16: OTHER INFORMATION

INFORMATION SOURCES - Material Safety Data Sheet, Misc. manufacturers. Product information provided by the commercial vendor(s).

DISCLAIMER

The information in this Data Sheet applies only to the products described herein and produced or supplied by us. It is based on our experience and on the data available to us at the time of its issue and is accurate to the best of our knowledge. The customer is strongly advised to observe and ensure that their employees, customers or users observe all information contained herein. However, no warranty is made or implied that the information is accurate or complete and we shall not be liable whatsoever arising out of the use of information or the products described herein. Where third party products are used in conjunction with or instead of products produced or supplied customers or users should themselves obtain all necessary technical, health and safety information about such products from third party.