



# SAFETY DATA SHEET

ProChemOnline.com



## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Thallium (I) Bromide**

PRODUCT NUMBER: 3529

CAS NUMBER: 7789-40-4

SYNONYMS: Thalious Bromide

### MANUFACTURER:

Prochem, Inc.  
826 Roosevelt Road  
Rockford, IL 61109

PHONE: 815-398-1788  
FAX: 815-398-1810  
TOLL FREE: 800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Danger**

### Hazard Statements

H300+H330	Fatal if swallowed or if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

### Precautionary Phrases

P260	Do not breathe dust or mist.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release into the environment.
P284	Wear respiratory protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor/physician.
P391	Collect Spillage.
P403+P233	Store in a well-ventilated place.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

### HMIS CLASSIFICATION:

Health: 3                      Chronic: \*                      Fire: 0                      Reactivity Hazard: 0

### NFPA RATING:

Health: 4                      Flammability: 0                      Reactivity Hazard: 0

**EYE CONTACT:** May cause slight to mild irritation of the eyes.

**SKIN CONTACT:** May cause slight to mild irritation of the skin.

**INHALATION:** May be irritating to the nose, mucous membranes, and respiratory tract. Thallium poisoning may occur.

**INGESTION:** Ingestion may result in swelling of the feet and legs, mental confusion, paralysis, angina-like pains, wasting, and weakness.

**CHRONIC HEALTH EFFECTS:** Prolonged exposure to thallium compounds has been reported to lead to discoloration of the hair, which later falls out, joint pain, loss of appetite, fatigue, severe pain in legs, albuminuria, and optic neuritis. Possible mutagen.

**ACUTE HEALTH EFFECTS:** Acute poisoning, after 1-10 days, results in pain of the extremities, fever, difficulty in moving, nausea and vomiting, followed by jumbled speech, tremors, convulsions, kidney failure, and pulmonary edema.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: TIBr

Molecular Weight: 284.29

CHEMICAL NAME	CAS#	%
Thallium (I) Bromide	7789-40-4	100

## SECTION 4 FIRST AID MEASURES

**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

**SKIN EXPOSURE:** Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

**INHALATION:** Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.

**INGESTION:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** Product is not flammable

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Use fire fighting measures that suit the surrounding fire.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** Hydrogen bromide and thallium oxides

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation.

**ENVIRONMENTAL PRECAUTIONS:** Prevent spillage from entering drains or allowing to be released into the environment.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Small spills can be mixed with diatomaceous earth, sand, vermiculite, or other suitable inert materials and swept up.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area. Store in a tightly sealed container.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

**EXPOSURE CONTROLS:** Contains no substances with occupational exposure limit values.

Component	Exposure Limits	Basis	Entity
Thallium (I) Bromide	0.1 mg/m <sup>3</sup>	TLV	ACGIH
	0.02 mg/m <sup>3</sup>	TLV	ACGIH
	0.1 mg/m <sup>3</sup>	PEL	OSHA
	0.1 mg/m <sup>3</sup>	REL	NIOSH

TLV: Threshold Limit Value over 8 hours of work.

PEL: Permissible Exposure Limit

**EYE PROTECTION:** Wear chemical safety glasses or goggles and face shield.

**SKIN PROTECTION:** Wear nitrile or rubber gloves, apron, or lab coat.

**VENTILATION:** Provide local exhaust, preferably mechanical.

**RESPIRATOR:** Use an approved respirator.

**ADDITIONAL PROTECTION:** Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** White powder

**ODOR:** Not available

**MOLECULAR WEIGHT:** 284.29

**BOILING POINT:** 815°C

**MELTING POINT:** 460°C

**SPECIFIC GRAVITY:** 7.5 gm/ml

**VAPOR DENSITY:** No data available

**SOLUBILITY:** Insoluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Not available

**INCOMPATIBILITY:** Strong oxidizing agents, potassium, sodium oxides, and alkali metals.

**DECOMPOSITION PRODUCTS:** Thallium oxides and hydrogen bromide

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** Not available

**CARCINOGENIC EFFECTS:** No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

**MUTAGENIC EFFECTS:** Not available

**TETRAOGENIC EFFECTS:** Not available

**CHRONIC TOXICITY:** Thallium exposure may lead to alopecia. Cutaneous effects may include dry scaly skin and impairment of nail growth resulting in the appearance of crescent-shaped strips across fingernails and toenails (Mees' line). Acute poisoning results in swelling of the feet and legs, arthralgia, vomiting, insomnia, hyperesthesia and paresthesia of the hands and feet, mental confusion, polyneuritis with severe pain in the legs and loins, partial paralysis of the legs, angina-like pains, nephritis, wasting and weakness, and lymphocytosis and eosinophilia. In chronic poisoning, central and peripheral nervous system abnormalities may persist including ataxia, tremor, incoordination, paralysis of extremities, endocrine disorders, memory loss, and psychoses may develop.

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

## SECTION 12 ECOLOGICAL DATA

Toxic to aquatic organisms. Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak in the ground. May cause long lasting harmful effects to aquatic life.

## SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

## SECTION 14 TRANSPORTATION DATA

<b>DOT:</b> UN1707	<b>IATA:</b> UN1707
Thallium compounds, n.o.s. (Thallium bromide)	Thallium compound, n.o.s. (Thallium bromide)
CLASS 6.1	CLASS 6.1
PG II	PG II

Marine Pollutant: No

## SECTION 15 REGULATORY INFORMATION

**TSCA:** Listed in the TSCA inventory  
**DSCL (EEC):** Listed on the DSCL inventory  
**SARA 302/304:** Not Listed  
**SARA 311/312:** Acute Health Hazard, Chronic Health Hazard  
**SARA (TITLE 313):** Thallium (I) Bromide  
**CALIFORNIA PROP. 65:** Not Listed  
**PENNSYLVANIA RIGHT TO KNOW:** Thallium (I) Bromide  
**NEW JERSEY RIGHT TO KNOW:** Thallium (I) Bromide  
**WHMIS CANADA:** Not Listed

## SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 09/14