

# MATERIAL SAFETY DATA SHEET (MSDS)

EM Science  
M A T E R I A L   S A F E T Y   D A T A   S H E E T

-----  
Section I Product Identification and Use  
-----

<b>Manufacturer:</b> EM SCIENCE A Division of EM Industries P.O. Box 70 480 Democrat Road Gibbstown, N.J. 08027	<b>For More Information Call</b> 856-423-6300 Technical Service Monday - Friday; 8:00 AM to 5:00 PM <b>In Case of Emergency Call</b> 800-424-9300 CHEMTREC (USA) 416-201-6383 CANUTEC (Canada) 24 Hours/Day: 7 Days/Week
--	--

**Product Name:** Tetramethylammonium bromide  
**Product Code(s):** B30378,  
**Chemical Name/Other Name:** Tetramethylammonium bromide  
**Chemical Formula:**  $(\text{CH}_3)_4\text{NBr}$   
**Chemical Family:** Quaternary ammonium compound  
**TDG Shipping Name/UN:** Not regulated  
**TDG Classification/Packing group:** Not regulated  
**Use:** Laboratory reagent

-----  
Section II Hazardous Ingredients  
-----

Chemical name	CAS No.	%
Tetramethylammonium bromide	64-20-0	100

-----  
Section III Physical Data  
-----

**Physical State:** Solid  
**Appearance and Odour:** White, crystalline powder  
**Odour Threshold:** Not available  
**Specific Gravity:** Not available  
**Vapour Pressure:** Not applicable  
**Vapour Density:** Not applicable  
**Evaporation Rate:** Not applicable  
**Boiling Point:** Not available  
**Freezing Point:** Not available  
**pH:** Not available  
**Coefficient of water/oil distribution:** Not available

-----  
Section IV Fire or Explosion Hazard  
-----

**Conditions of Flammability:** Noncombustible  
**Extinguishing Media:** Use an extinguisher appropriate to the surrounding material that is burning.  
**Flash point / method:** Not applicable

**UEL:** Not applicable  
**LEL:** Not applicable  
**Autoignition Temperature:** Not applicable  
**Hazardous Combustion Products:** CO<sub>x</sub>, NO<sub>x</sub>  
**Explosion data - sensitivity to mechanical impact:** No  
- **sensitivity to static discharge:** No

---

### Section V Reactivity Data

---

**Conditions of instability:** Hygroscopic  
**Incompatibilities:** Oxidizers  
**Conditions of reactivity:** Normally stable  
**Hazardous decomposition products:** NO<sub>x</sub>, CO<sub>x</sub>, HBr

---

### Section VI Toxicological Properties / Health Hazard Data

---

**Route of entry:**

- skin contact:** Irritates
- skin absorption:** Harmful
- eye contact:** Irritates
- inhalation:** Harmful
- ingestion:** Harmful

**LC<sub>50</sub>:** Not available

**LD<sub>50</sub>:** Not available

**Exposure Limits:** Not established

**Effects of Acute Exposure:** This material is harmful if swallowed, inhaled or absorbed through the skin. It is irritating to the mucous membranes, the upper respiratory tract, eyes and skin.

**Effects of Chronic Exposure:** No information available

**Irritancy:** No experimental information available

**Sensitization to Product:** No information available

**Carcinogenicity:** No information available

**Reproductive Toxicity:** No information available

**Teratogenicity:** No information available

**Mutagenicity:** No information available

**Toxicologically Synergistic Products:** None found

---

### Section VII First aid measures

---

**Skin:** Flush the contact area with lukewarm running water for at least 15 minutes. Remove contaminated clothing, taking care not to spread the chemical. If contamination is extensive, remove clothing under running water. Discard or decontaminate clothing under running water. Discard or decontaminate clothing before use. Unless contact has been slight, seek medical attention. Seek medical attention if irritation persists.

**Eye:** Flush the contaminated eye(s) for at least 15 minutes with lukewarm running water, holding the eyelids open. Take care not to rinse contaminated water into the non-affected eye. Always seek medical attention for accidents involving the eyes.

**Inhalation:** Take proper precautions to ensure your own safety before attempting rescue. Remove source of contamination or move victim to fresh air. If breathing has stopped, trained personnel should begin artificial

respiration, or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Seek medical attention.

**Ingestion:** Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. If conscious induce vomiting. Have victim drink 200-400 ml of water to dilute. If breathing has stopped, trained personnel should begin artificial respiration, or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Seek medical attention.

---

### Section VIII Preventive Measures

---

**Engineering Controls:** Engineering control methods to reduce hazardous exposures are preferred. Methods include mechanical ventilation (dilution and local exhaust), process or personal enclosure, control of process conditions, and process modification. Administrative controls and personal protective equipment may also be required.

**Personal protective equipment:**

- gloves: Rubber, plastic
- respiratory protection: Dust mask, fume hood as appropriate
- eye protection: Chemical safety goggles
- clothing: Plastic apron, sleeves and boots as appropriate

**Storage Requirements:** Store in suitable labelled containers. Keep containers tightly closed when not in use and when empty. Protect from damage. Store in a cool, dry, well-ventilated area, out of direct sunlight. Store away from incompatible materials.

**Handling Procedures and Equipment:** Follow routine safe handling procedures.

**Leak or Spill Clean-up:** Before dealing with spillages take necessary protective measures, inform others to keep at a safe distance and, for flammable materials, shut off all possible sources of ignition. Transfer carefully into container and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent.

**Disposal:** Follow all federal, provincial and local regulations for disposal. Use only licensed disposal and waste hauling companies. Disposal of small amounts of spilled material may be handled as described under "Leak or Spill Cleanup". Large spills must be dealt with separately and must be handled by qualified disposal companies.

**Special Shipping Information:** Follow all TDG regulations and see classification in Section I

---

### Section IX Preparation Information

---

Prepared by: Technical Affairs Department, BDH Inc.,  
Toronto, Ontario  
(416) 255-8521

For questions contact: Regulatory Affairs Department, EM Science

Sep 28, 2000

**WHMIS Classification: D2B**

The statements contained herein are offered for informational purposes only and are based upon technical data that BDH INC believes to be accurate. It is intended for use only by persons having the necessary technical skills and at their own discretion and risk. Since conditions and manner of use are outside our control, we make NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE.