

# Material Safety Data Sheet

From Genium's Reference Collection  
 Genium Publishing Corporation  
 1145 Catalyn Street  
 Schenectady, NY 12303-1836 USA  
 (518) 377-8855



No. 642

BROMTHYMOL BLUE

Issued: November 1987

## SECTION 1: MATERIAL IDENTIFICATION

Material Name: BROMTHYMOL BLUE

Description (Origin/Uses): Used as an acid-base indicator, showing a color change from yellow to blue over the range pH 6.0 to 7.6.

Other Designations:  $C_{27}H_{28}Br_2O_5S$ ; CAS No. 0076-59-5

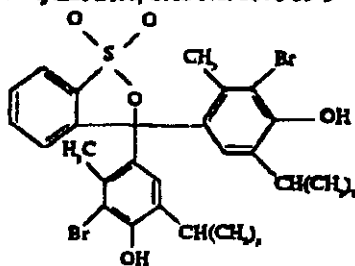
Manufacturer: Contact your supplier or distributor. Consult the latest edition of the *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.



HMIS	Not Found
H 0	
F 0	R 1
R 0	I -
PPG*	S -
*See sect. 8	K -

## SECTION 2: INGREDIENTS AND HAZARDS

Bromthymol Blue, CAS No. 0076-59-5



ca 100

EXPOSURE LIMITS  
 Comments: Exposure limits for bromthymol blue have not been set by the ACGIH, NIOSH, or OSHA; neither have toxicity data for this material been evaluated by NIOSH.

## SECTION 3: PHYSICAL DATA

Water Solubility: Slight  
 Vapor Pressure: Negligible  
 Evaporation Rate: Not Found

Specific Gravity ( $H_2O = 1$ ): Not Found  
 Melting Point: It begins to decompose at 392°F (200°C).  
 Molecular Weight: 624 Grams/Mole  
 % Volatile by Volume: Negligible

Appearance and Odor: Off-white, cream-colored crystals or powder; no data on odor found.

## SECTION 4: FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temperature	Flammability Limits in Air	LOWER	UPPER
			Not Found*	Not Found*
Not Found*	Not Found*	% by Volume		

Extinguishing Media: \*Use water fog, dry chemical, "alcohol" foam, or carbon dioxide to fight fires involving bromthymol blue. Use a water spray to cool fire-exposed tanks or containers. Consult suppliers of foam before an emergency arises to determine their products' specific applicability to bromthymol blue fires.

Unusual Fire or Explosion Hazards: This combustible solid is a slight fire hazard when exposed to heat, sparks, and open flame.

Special Fire-fighting Procedures: Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode.

## SECTION 5: REACTIVITY DATA

Bromthymol blue is stable in closed containers at room temperature under normal storage and handling conditions. It does not undergo hazardous polymerization.

Chemical Incompatibilities: This material is incompatible with strong oxidizers.

Conditions to Avoid: Avoid direct exposure to heat, sparks, open flame, lighted tobacco products, and chemical incompatibles.

Hazardous Products of Decomposition: When heated to decomposition, bromthymol blue can emit toxic gases such as hydrogen bromide (HBr), sulfur oxides (SO<sub>2</sub>), carbon monoxide, and/or carbon dioxide.

**SECTION 6. HEALTH HAZARD INFORMATION**

Bromthymol blue is not listed as a carcinogen by the NTP, IARC, or OSHA.

**Summary of Risks:** This material is relatively nonhazardous in routine industrial situations. It is not expected to present significant health risks to the workers who use it. It is toxic by ingestion, although this possibility is extremely unlikely if recommended personal hygiene procedures are followed.

**Medical Conditions Aggravated by Long-Term Exposure:** None reported.

**Target Organs:** None reported. **Primary Entry:** Inhalation, skin contact.

**Acute Effects:** None reported. **Chronic Effects:** None reported.

**FIRST AID**

**Eye Contact:** Immediately flush eyes, including under the eyelids, gently but thoroughly with plenty of running water for at least 15 minutes.

**Skin Contact:** Immediately wash the affected area with soap and water.

**Inhalation:** Remove victim to fresh air; restore and/or support his breathing as needed.

**Ingestion:** Never give anything by mouth to someone who is unconscious or convulsing. If the victim is responsive, give him one or two glasses of milk or water to drink. Do not induce vomiting unless directed to do so by a physician.

**GET MEDICAL HELP (IN PLANT, PARAMEDIC, COMMUNITY) FOR ALL EXPOSURES.** Seek prompt medical assistance for further treatment, observation, and support after first aid.

**SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES**

**Spill/Leak:** Notify safety personnel of large bromthymol blue spills or leaks. Remove all sources of heat and ignition. Evacuate the spill area and limit access to necessary personnel only. Remove leaking containers to a safe place, if feasible. Scoop, shovel, or vacuum the spilled material into closable containers for disposal. Use caution to avoid generating dust.

**Waste Disposal:** Consider reclamation, recycling, or destruction rather than disposal in a landfill. Contact your supplier or a licensed contractor for detailed recommendations. Follow Federal, state, and local regulations.

**OSHA Designations**

**Air Contaminant (29 CFR 1910.1000 Subpart Z):** Not Listed

**EPA Designations (40 CFR 302.6)**

**RCRA Hazardous Waste:** Not Listed

**CERCLA Hazardous Substance:** Not Listed

**SECTION 8. SPECIAL PROTECTION INFORMATION**

**Goggles:** Always wear protective eyeglasses or chemical safety goggles. Follow the eye- and face-protection guidelines of 29 CFR 1910.133. **Gloves:** Wear impervious gloves to prevent prolonged skin contact. **Respirator:** In routine industrial conditions, special respirator protection may not be needed. For emergency or nonroutine exposures where excessive dust or vapor levels may exist, use a respirator approved by NIOSH. **Ventilation:** Install and operate ventilation systems that control airborne concentrations of this material at a level that does not interfere with the worker's safety, comfort, or productivity.

**Safety Stations:** Make eyewash stations, washing facilities, and safety showers available in areas of use and handling.

**Contaminated Equipment:** Contact lenses pose a special hazard; soft lenses may absorb irritants, and all lenses concentrate them.

Particles may cling to contact lenses and cause corneal injury. Do not wear contact lenses in any work area. Remove contaminated clothing and launder it before wearing it again; clean this material from shoes and equipment.

**Comments:** Practice good personal hygiene; always wash thoroughly after using this material. Keep it off of your clothing and equipment. Avoid transferring it from hands to mouth while eating, drinking, or smoking. Do not smoke, eat, or drink in any work area. Avoid prolonged skin contact with this material or inhalation of its dust.

**SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS**

**Storage Segregation:** Store bromthymol blue in closed containers in a cool, dry, well-ventilated area away from heat, sparks, open flame, and strong oxidizers.

**Special Handling/Storage:** Protect containers from physical damage. Storage areas must meet OSHA requirements for combustible solids. All containers used in shipping or transferring operations must be electrically grounded to prevent static sparks. Build all storage facilities with an explosion-relief design to minimize damage from any explosion that may occur.

**Comments:** Do not smoke in any use or storage areas. Emptied containers retain product residues; handle them accordingly. Avoid prolonged contact with this material or generating its dust while working with it.

**Transportation Data (49 CFR 172.101-2):** Not Listed

**References:** 1, 5, 7, 73, 81-94, 103. CR/PJ

Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Oenium Publishing Corp. extends no warranty, makes no representations and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

Approvals *J. R. Hancock*

Indust. Hygiene/Safety *J. W.*

Medical Review *M. H. R. Gibson*