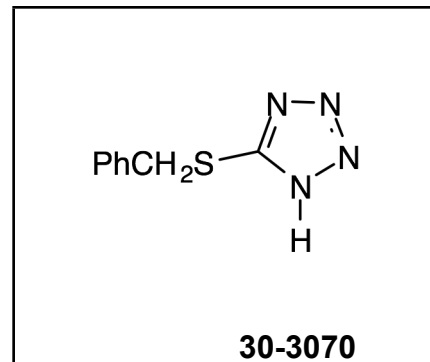


1. Product and Company Identification

Product Code: 30-3070-xx
Product Name: 5-Benzylthio-1H-tetrazole
Product Use: For Research Use Only
Manufacturer Information
Company Name: Glen Research LLC
22825 Davis Drive
Sterling, VA 20164 USA
1-703-437-6191
Phone Number: 1-703-437-6191
Web site address: www.glenresearch.com
Email address: msds@glenres.com
Information in case of emergency: 1-703-437-6191
CAS Number: **21871-47-6**
Synonyms: 5-Benzylthio-1H-tetrazole



2. Hazards Identification

GHS Hazard Statements

H303: May be harmful if swallowed.
H313: May be harmful in contact with skin.
H320: Causes eye irritation.
H333: May be harmful if inhaled.

GHS Precautionary Statements

P103: Read label before use.
P232: Protect from moisture.
P233: Keep container tightly closed.
P280: Wear protective gloves / protective clothing / eye protection / face protection.

GHS Response Statements

P301 + 330: IF SWALLOWED: Rinse mouth with water.
P302 + 350: IF ON SKIN: Gently wash with soap and water.
P304 + 340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + 351 + 338: IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do so - continue rinsing.
P306 + 360: IF ON CLOTHING: Rinse contaminated clothing and skin immediately with plenty of water before removing clothes.
P314: Get medical advice / attention if you feel unwell.
P362: Take off contaminated clothing and wash before use.

GHS Storage and Disposal Phrases

P401 Store in a cool, dry place
P501: Dispose of contents / container in a safe way in accordance with all federal, state and local regulations.

SAFETY DATA SHEET
5-Benzylthio-1H-tetrazole (BTT)
(30-3070-xx)

Emergency Overview

No known OSHA hazards. May cause eye, skin, and respiratory tract irritation.

Route(s) of Entry:

Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes

Potential Health Effects (Acute and Chronic)

No data available.

Recommended Exposure Limits

No data available.

LD 50 / LC 50

No data available.

Signs and Symptoms of Exposure

No data available.

Medical Conditions Generally Aggravated By Exposure

No data available.

3. Composition/Information on Ingredients

Product Name	CAS #	Concentration	M.W.	Formula
5-Benzylthio-1H-tetrazole	21871-47-6	100 %	192.23	C ₈ H ₈ N ₄ S
Synonyms:	5-Benzylthio-1H-tetrazole			

4. First Aid Measures**Emergency and First Aid Procedures**

If inhaled, remove to fresh air.

If not breathing, give artificial respiration.

Get medical attention.

In case of skin contact, immediately wash skin with soap and plenty of water.

Remove contaminated clothing.

Wash clothing before reuse.

Get medical attention if symptoms occur after washing.

If swallowed, rinse mouth with water.

Get medical attention.

If in contact with eyes, rinse cautiously with water for several minutes.

Get medical attention if symptoms occur after washing.

Remove contact lenses if present and continue rinsing.

5. Fire Fighting Measures**Flash Point:**

No data

Explosive Limits:

LEL: No data UEL: No data

Fire Fighting Instructions

A finely divided dust aerosol may be explosive, although the exact conditions of the hazards are unknown.

Wear appropriate protective clothing to prevent contact with skin and eyes.

Wear a self-contained breathing apparatus (SCBA) if necessary.

Unusual Fire and Explosion Hazards: May decompose rapidly. May explode if heated above 155• C.

Flammable Properties and Hazards

No data available.

Hazardous Combustion Products

Oxides of nitrogen, carbon and sulfur

Suitable Extinguishing Media

Use a Class A Extinguisher (Dry chemical, carbon dioxide, water or foam).

Unsuitable Extinguishing Media

No data available.

SAFETY DATA SHEET
5-Benzylthio-1H-tetrazole (BTT)
(30-3070-xx)

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled

Sweep up bulk of material and finish by wiping with a damp towel. Do not let product enter the drain.
Wear impermeable gloves, safety glasses and a lab coat when cleaning up the spill.
A NIOSH dust mask is recommended when a possibility of dust inhalation exists. Local exhaust is usually sufficient.

7. Handling and Storage

Precautions To Be Taken in Handling

Handle using safe laboratory practices. Avoid all direct contact.

Recommended Storage

Controlled room temperature or lower, dry

Precautions To Be Taken in Storing

Keep container tightly closed. Store in well-ventilated place.

Other Precautions

Protect from sunlight. Protect from heat.

8. Exposure Controls/Personal Protection

Product Name	CAS #	OSHA PEL	ACGIH TLV	Other Limits
5-Benzylthio-1H-tetrazole	21871-47-6	No data	No data	No data

Respiratory Equipment (Specify Type)

A NIOSH dust mask is recommended when a possibility of dust inhalation exists.

Eye Protection

Safety glasses

Protective Gloves

Impermeable gloves

Other Protective Clothing

Normal laboratory apparel

Engineering Controls (Ventilation etc.)

Local exhaust ventilation is usually sufficient

Work/Hygienic/Maintenance Practices

Wash hands after handling

9. Physical and Chemical Properties

Physical State:	<input type="checkbox"/> Gas	<input type="checkbox"/> Liquid	<input checked="" type="checkbox"/> Solid
Appearance:	White Crystals		
Odor:	Slight sulfur odor		
Odor Threshold:	No data		
pH:	No data		
Melting Point:	135-138°C		
Freezing Point:	No data		
Initial Boiling Point and Boiling Range:	No data		
Flash Point:	No data		
Specific Gravity:	~1		
Evaporation Rate (Water=1):	<< 1		
Flammability:	No data		
Explosive Limits:	LEL: No data	UEL: No data	
Vapor Pressure (vs. Air or mm Hg):	No data		
Vapor Density (vs. Air = 1):	No data		
Relative Density:	No data		
Solubility in Water:	No data		
Partition Coefficient (n-octanol/water):	No data		
Auto-ignition Temperature:	No data		
Decomposition Temperature:	No data		
Viscosity:	No data		
Percent Volatile:	No data		

SAFETY DATA SHEET
5-Benzylthio-1H-tetrazole (BTT)
(30-3070-xx)

10. Stability and Reactivity

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability

Stable under recommended storage conditions.

Incompatibility - Materials To Avoid

Strong oxidizing reagents

Hazardous Decomposition or Byproducts

Oxides of nitrogen, carbon and sulfur may evolve when heated to decomposition.

Possibility of Hazardous Reactions: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Reactions

Stable material, hazardous polymerization will not occur.

11. Toxicological Information

To the best of our knowledge, the toxicological properties of this substance have not been investigated.

This product should be handled with the usual care when dealing with chemicals.

Product Name	CAS #	NTP	IARC	OSHA
5-Benzylthio-1H-tetrazole	21871-47-6	No data	No data	No data

12. Ecological Information

No data available.

13. Disposal Considerations

Waste Disposal Method

For Product - Observe all federal, state and local regulations.

For Contaminated Packaging - Dispose of in compliance with regulations.

Sweep up bulk of material and finish by wiping with a damp towel. Dispose of unused product.

14. Transport Information

LAND TRANSPORT (49CFR)

49CFR Shipping Name Not a dangerous substance as defined in the regulations.

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name Not a dangerous substance as defined in the regulations.

MARINE TRANSPORT (IMDG/IMO)

IMDG/IMO Shipping Name Not a dangerous substance as defined in the regulations.

Marine Pollutant: No

Additional Transport Information

Not regulated as a hazardous material or dangerous goods.

15. Regulatory Information

Regulatory Information

SARA 302 Components: No chemicals in this product are subject to reporting requirements of SARA Title III, Section 302.

SARA 313 Components: This product does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

16. Other Information

For all other inquiries about this product contact Glen Research at 1-800-327-GLEN or 1-703-437-6191.

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