

Material Safety Data Sheet

5-Bromo-1-benzothiophene-2-carbonyl chloride

ACC# 10935

Section 1 - Chemical Product and Company Identification

MSDS Name: 5-Bromo-1-benzothiophene-2-carbonyl chloride

Catalog Numbers: CC38802CB, CC38802DA, CC38802ZZ

Synonyms: None Known.

Company Identification:

Maybridge PLC

Trevillet, Tintagel

Cornwall, England. PL34 0HW

For information, call: +44(0)1840770453

For emergencies, call: +44(0)7702924616

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7312-14-3	5-Bromo-1-benzothiophene-2-carbonyl chloride	97%	unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Off white.

Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns. Water-reactive. Reacts violently with water. Contact with water liberates toxic gas. Harmful if swallowed.

Target Organs: Respiratory system, eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns.

Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.

Inhalation: Causes chemical burns to the respiratory tract.

Chronic: Chronic exposure may cause effects similar to those of acute exposure.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Water Reactive. Material will react with water and may release a flammable and/or toxic gas.

Extinguishing Media: Use foam, dry chemical, or carbon dioxide. DO NOT USE WATER! Contact professional fire-fighters immediately.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 2; Special Hazard: -W-

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Provide ventilation. Do not expose spill to water. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Do not allow water to get into the container because of violent reaction. Minimize dust generation and accumulation. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use and store under nitrogen. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Store in a tightly closed container. Corrosives area. Water free area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
5-Bromo-1-benzothiophene-2-carbonyl chloride	none listed	none listed	none listed

OSHA Vacated PELs: 5-Bromo-1-benzothiophene-2-carbonyl chloride: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: Off white

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 99 - 102 deg C

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: C₉H₄BrClOS

Molecular Weight: 275.55

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Combines vigorously or explosively with water. Moisture sensitive. Reacts with water to form hydrogen chloride, a toxic and corrosive gas.

Conditions to Avoid: Incompatible materials, dust generation, exposure to moist air or water.

Incompatibilities with Other Materials: Water, strong bases, strong acids, strong oxidizing agents, amines, acid chlorides, strong reducing agents.

Hazardous Decomposition Products: Hydrogen chloride, carbon monoxide, oxides of sulfur, carbon dioxide, hydrogen bromide, bromine.

Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

RTECS#:

CAS# 7312-14-3 unlisted.

LD50/LC50:

Not available.

Carcinogenicity:

CAS# 7312-14-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: Fish: *Pseudomonas putida*:

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	CORROSIVE SOLID, WATER-REACTIVE, N.O.S.	CORROSIVE SOLID, WATER-REACTIVE, N.O.S.
Hazard Class:	8	8
UN Number:	UN3096	UN3096
Packing Group:	II	II

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 7312-14-3 is not listed on the TSCA inventory. It is for research and development use only.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 7312-14-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

C

Risk Phrases:

R 14 Reacts violently with water.

R 22 Harmful if swallowed.

R 29 Contact with water liberates toxic gas.

R 35 Causes severe burns.

Safety Phrases:

S 22 Do not breathe dust.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 30 Never add water to this product.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 8 Keep container dry.

WGK (Water Danger/Protection)

CAS# 7312-14-3: No information available.

Canada - DSL/NDSL

None of the chemicals in this product are listed on the DSL or NDSL list.

Canada - WHMIS

This product has a WHMIS classification of E, F.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 7/28/2005

Revision #1 Date: 2/15/2006

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.