

**Section 1. Product and Company Identification**

**Product Name** Benzyl isothiocyanate  
**Product ID** B1653  
**Chemical Name (Synonyms)** Isothiocyanic acid benzyl ester; 2-Bromo-4-trifluoro- methyl-6-nitrophenyl-isothiocyanate  
**Supplier** LKT Laboratories, Inc  
545 Phalen Blvd.  
St. Paul, MN 55130 USA  
Ph: 651-644-8424 Fax: 651-644-8357  
www.lktlabs.com - getinfo@lktlabs.com  
**Emergency Phone #** 1-800-424-9300

**Section 2. Hazards Identification**

**GHS Classification** Acute toxicity, Oral (Category 4), H302  
Acute toxicity, Inhalation (Category 4), H332  
Acute toxicity, Skin (Category 4), H312  
Skin irritation (Category 2), H315  
Eye irritation (Category 2A), H319  
Respiratory sensitization (Category 1), H334  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335.

**GHS Label elements including precautionary statements****Pictogram****Signal word** Danger**Hazard and precautionary statements****Hazard statements**

H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 - May cause respiratory irritation.

**Precautionary statements**

P261 - Avoid breathing dust, fumes, gas, mist, vapors and spray.  
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.  
P280 - Wear protective gloves, eye and face protection.  
P285 - In case of inadequate ventilation wear respiratory protection.  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P322 - Specific measures (see supplemental first aid instructions on this label).  
P330 - Rinse mouth.  
P332 + P313 - If skin irritation occurs: Get medical advice and or attention.  
P337 + P313 - If eye irritation persists: Get medical advice and or attention.  
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
P362 - Take off contaminated clothing and wash before reuse.  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P501 - Dispose of contents and or container to an approved waste disposal plant.

**HMIS Classification**

Health hazard: 2  
Chronic health hazard: \*  
Flammability: 1  
Physical hazard: 0

**NFPA Rating**

Health hazard: 2  
Fire hazard: 1  
Reactivity hazard: 0

**Potential Health Effects**

Inhalation: Acute toxicity. May be harmful if inhaled. May cause respiratory tract irritation.  
Skin: Acute toxicity. May be harmful if absorbed through skin. May cause skin irritation.  
Eyes: May cause eye irritation.

Ingestion: Acute toxicity. Harmful if swallowed.

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### Section 3. Composition/Information on Ingredients

#### Substances

**Formula** C<sub>8</sub>H<sub>7</sub>NS  
**CAS No.** 622-78-6

**Formula Wt.** 149.22  
**EC No.**

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### Section 4. First Aid Measures

**General advice** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Eye Contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin Contact** Wash off with soap and plenty of water. Consult a physician.

**Inhalation** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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### Section 5 . Firefighting Measures

**Flash Point** >110 °C (>230°F) - closed cup.

**Extinguishing Media** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

**Firefighting Procedures** Wear self-contained breathing apparatus for firefighting if necessary.

**Unusual Fire Hazards** Carbon oxides, nitrogen oxides (NO<sub>x</sub>), sulfur oxides.

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### Section 6. Accidental Release Measures

**Personal Precautions** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental Precautions** Do not let product enter drains.

**Methods and materials for containment and cleanup** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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### Section 7. Handling and Storage

**Handling** Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Normal measures for preventive fire protection.

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Recommended storage temperature: 4°C.

**Hazardous Decomposition Products** Carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides.

**Other Remarks** This product is light and moisture sensitive. Handle and store under inert gas.

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## Section 8. Exposure Controls/Personal Protection

### Personal protective equipment EXPOSURE CONTROLS

Contains no substances with occupational exposure limit values. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

#### PERSONAL PROTECTION

**Eye/face protection** - Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin protection** - Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body protection** - Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection** - Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid	<b>Color</b>	Clear, light yellow liquid.
<b>Boiling Point</b>	242°C-243°C	<b>Volatility</b>	Not available.
<b>Melting Point</b>	Not available.	<b>Density</b>	Not available.
<b>Solubility</b>	Soluble in DMSO, ethanol, or chloroform.	<b>pH</b>	Not available.
<b>Flash Point</b>	>110 °C (>230°F) - closed cup.	<b>Ignition temperature</b>	Not available.
<b>Lower explosion limit</b>	Not available.	<b>Autoignition temperature</b>	Not available.
<b>Upper explosion limit</b>	Not available.	<b>Vapor pressure</b>	Not available.
<b>Water solubility</b>	Not available.	<b>Odor</b>	Not available.
<b>Partition coefficient: n-octanol/water</b>	Not available.	<b>Odor Threshold</b>	Not available.
<b>Relative vapor density</b>	Not available.	<b>Evaporation rate</b>	Not available.

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## Section 10. Stability and Reactivity

<b>Stability</b>	Stable under recommended storage conditions.
<b>Materials To Avoid</b>	Keep away from heat, strong oxidizing agents, alcohols, amines, strong bases, and acids.
<b>Hazardous Decomposition Products</b>	Carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides.

**Possibility of hazardous reactions** Not available.

**Conditions to avoid** Heat.

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## Section 11. Toxicological Information

**Oral LD50** Not available.

**Skin corrosion/irritation** Not available.

**Inhalation LC50** Not available.

**Serious eye damage/irritation** Not available.

**Dermal LD50** Not available.

**Respiratory or skin sensitization** Not available.

**Other information on acute toxicity** Not available.

**Germ cell mutagenicity** hamster, ovary, cytogenetic analysis  
hamster, ovary, DNA damage  
hamster, ovary, Sister chromatid exchange  
mammal, cytogenetic analysis  
mammal, other mutation test systems

**Reproductive Toxicity** Not available.

**Aspiration Hazard** Not available.

**Specific organ toxicity single exposure (GHS)** Inhalation - may cause respiratory irritation.

**Synergistic effects** Not available.

**Specific organ toxicity repeated exposure (GHS)** Not available.

**Additional Information** RTECS: NX8250000  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Teratogenicity** Not available.

**Signs and symptoms of exposure** Cough, shortness of breath, headache, nausea, vomiting.

**Potential Health Effects** Inhalation: Acute toxicity. May be harmful if inhaled. May cause respiratory tract irritation.  
Skin: Acute toxicity. May be harmful if absorbed through skin. May cause skin irritation.  
Eyes: May causes eye irritation.  
Ingestion: Acute toxicity. Harmful if swallowed.

**Carcinogenicity** **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.  
**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH  
**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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## Section 12. Ecological Information

**Toxicity** Toxicity to daphnia and other aquatic invertebrates - LC50 - Daphnia magna (Water flea) - 0.043 mg/l - 48h

**Mobility in soil** Not available.

**PBT and vPvB assessment** PBT/vPvB assessment not available as chemical safety assessment not required/not

conducted.

**Persistence and degradability** Not available.

**Other adverse effects** Not available.

**Bioaccumulative potential** Not available.

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### Section 13. Disposal Considerations

**Waste Disposal** Dispose of material according to all federal, state, and local regulations.  
Offer material to a licensed, professional waste disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of as unused product.

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### Section 14. Transport Information

**DOT (US)** UN number: 3334 Class: 9  
Proper shipping name: A aviation regulated liquid, n.o.s. (Benzyl isothiocyanate)  
Marine pollutant: No, Poison inhalation hazard: No

**IATA** UN number 3334, Class: 9, Packing group: III  
Proper shipping name: Aviation regulated liquid, n.o.s. (Benzyl isothiocyanate)

**IMDG** Not dangerous goods.

#### Further Information

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### Section 15. Regulatory Information

**Reach No.**

**SARA 302 Components** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Components** Acute health hazard.

**Massachusetts Right To Know Components** No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components** Benzyl isothiocyanate CAS #: 622-78-6 Revision Date:

**New Jersey Right To Know Components** Benzyl isothiocyanate CAS #: 622-78-6 Revision Date:

**California Prop 65 Components** This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other reproductive harm.

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### Section 16. Other Information

**Other information** The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.

**Updated** 4/24/2019

For emergencies in the USA, call  
CHEMTREC 800-424-9300