

# Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	<b>Environmental hazard.</b> This material is toxic to aquatic organisms and may cause long term adverse effects to the aquatic environment. Irritating to skin, eyes, and the respiratory system.	

## Section I. Chemical Product and Company Identification

Chemical Name	<b>Dibenzyl Ether</b>		
Catalog Number	B0418	Supplier	TGI America 9211 N. Harborage St. Portland OR 1-800-423-8616
Synonym	Benzyl Ether		
Chemical Formula	(C <sub>6</sub> H <sub>5</sub> CH <sub>2</sub> ) <sub>2</sub> O		
CAS Number	103-50-4	In case of Emergency Call	<b>Chemtrec®</b> <b>(800) 424-9300 (U.S.)</b> <b>(703) 527-3887 (International)</b>

## Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Dibenzyl Ether	103-50-4	Min. 95.0 (GC)	Not available.	Rat LD <sub>50</sub> (oral) 2500 mg/kg Mouse LD <sub>50</sub> (oral) 4300 mg/kg

## Section III. Hazards Identification

Acute Health Effects	Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Not available. <b>DEVELOPMENTAL TOXICITY</b> : Not available. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

## Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
Ingestion	INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.

## Section V. Fire and Explosion Data

Flammability	May be combustible at high temperature.	Auto-Ignition	Not available.
Flash Points	135 °C (275 °F).	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO <sub>2</sub> ).		
Fire Hazards	Not available.		
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. Consult with local fire authorities before attempting large scale fire-fighting operations.		

**Section VI. Accidental Release Measures**

Spill Cleanup Instructions Environmentally hazardous material. Irritating material. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Consult federal, state, and/or local authorities for assistance on disposal.

**Section VII. Handling and Storage**

Handling and Storage Information ENVIRONMENTAL HAZARD. IRRITANT. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. DO NOT ingest. Do not breathe gas/fumes/ vapor/spray. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Always store away from incompatible compounds such as oxidizing agents, acids.

**Section VIII. Exposure Controls/Personal Protection**

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.

Personal Protection Splash goggles. Lab coat. Vapor respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent.



Exposure Limits Not available.

**Section IX. Physical and Chemical Properties**

Physical state @ 20°C	Liquid. (Clear, colorless.)	Solubility	Miscible with Ethanol, Ether, Aceton, Chloroform. Practically insoluble in water.
Specific Gravity	1.04 (water=1)	Partition Coefficient	Log P <sub>ow</sub> : 3.31
Molecular Weight	198.26	Vapor Pressure	0.1 Pa (@ 25°C)
Boiling Point	298 °C (568.4 °F)	Vapor Density	6.84 (Air = 1)
Melting Point	4°C (39.2°F)	Volatility	Not available.
Refractive Index	Not available.	Odor	Characteristic.
Critical Temperature	Not available.	Taste	Not available.
Viscosity	Not available.		

**Section X. Stability and Reactivity Data**

Stability This material is stable if stored under proper conditions. (See Section VII for instructions)

Conditions of Instability Avoid excessive heat and light.

Incompatibilities Reactive with strong oxidizing agents, strong acids.

**Section XI. Toxicological Information**

RTECS Number DQ6125000

Routes of Exposure Eye Contact. Ingestion. Inhalation.

Toxicity Data Rat LD<sub>50</sub> (oral) 2500 mg/kg  
Mouse LD<sub>50</sub> (oral) 4300 mg/kg

Chronic Toxic Effects **CARCINOGENIC EFFECTS** : Not available.  
**MUTAGENIC EFFECTS** : Not available.  
**TERATOGENIC EFFECTS** : Not available.  
**DEVELOPMENTAL TOXICITY**: Not available.  
Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

Acute Toxic Effects Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.  
Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

**Section XII. Ecological Information**

Ecotoxicity Not available.

Environmental Fate Dibenzy ether's production and use as an synthetic flavoring ingredient, a plasticizer for synthetic rubber, a plasticizer for nitrocellulose, and a solvent in perfumery may result in its release to the environment through various waste streams. Dibenzy ether has been identified in tap water and in the Rhine and Niagara Rivers. If released to soil, dibenzy ether will have slight mobility in soil. Volatilization is not expected from either moist or dry soils. According to a MITI biodegradation test, biodegradation of dibenzy ether is not expected to be an important fate process in soil or water. However, another study with seawater and river water indicated biodegradation may be rapid. If released to water, dibenzy ether would adsorb to suspended solids and sediment. Dibenzy ether will be essentially non-volatile from water surfaces. Experimental BCF values of 171-429 and 187-345 suggest that bioconcentration of dibenzy ether will be high aquatic organisms. If released to the atmosphere dibenzy ether will exist as a vapor. Vapor-phase dibenzy ether is degraded in the atmosphere by reaction with photochemically produced hydroxyl radicals with an estimated half-life of about 18 hours. General population may be exposed through the ingestion of foodstuffs and through dermal contact with perfumes that contain dibenzy ether. General and occupational exposure to ethers, such as dibenzy ether, can occur through dermal contact, inhalation, and ingestion.

**Section XIII. Disposal Considerations**

Waste Disposal Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

**Section XIV. Transport Information**

DOT Classification DOT Class 9: Miscellaneous hazardous material.

PIN Number UN3082

Proper Shipping Name Environmentally hazardous substance, solid, n.o.s.

Packing Group (PG) III

DOT Pictograms

**Section XV. Other Regulatory Information and Pictograms**

TSCA Chemical Inventory (EPA) This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.

WHMIS Classification (Canada) On DSL

EINECS Number (EEC) 203-118-2

EEC Risk Statements R36/37/38- Irritating to eyes, respiratory system and skin.  
R51- Toxic to aquatic organisms.  
R53- May cause long-term adverse effects in the aquatic environment.

Japanese Regulatory Data ENCS No. 3-1082

**Section XVI. Other Information**

**Version 1.0**  
**Validated on 3/13/2007.**  
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**Notice to Reader**

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.