



J.T. Baker Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865

24-Hour Emergency Telephone 908-859-2151  
National Response Center 800-424-8802  
Chemtrec 800-424-9300

# MATERIAL SAFETY DATA SHEET

FICHE  
SIGNALÉTIQUE

National Response In Canada  
CANUTEC 613-996-6666

HOJAS DE DATOS  
DE SEGURIDAD

Outside U.S. and Canada  
Chemtrec 202-483-7616

FEB 11 1991

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Issued: 02/05/91

*chem*

B2347 -04  
Effective: 05/01/89

Biphenyl

J.T. BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865

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SECTION I - PRODUCT IDENTIFICATION

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Product Name: Biphenyl  
Common Synonyms: Diphenyl; Phenylbenzene  
Chemical Family: Aromatic Hydrocarbons  
Formula:  $C_6H_5C_6H_5$   
Formula Wt.: 154.21  
CAS No.: 92-52-4  
NIOSH/RTECS No.: DU8050000  
Product Use: Laboratory Reagent  
Product Codes: C278,4874

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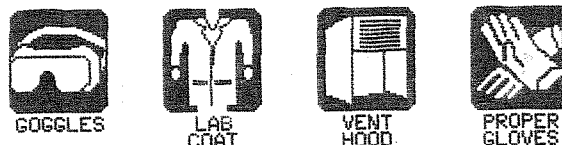
PRECAUTIONARY LABELING

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BAKER SAF-T-DATA\* System

HEALTH	FLAMMABILITY	REACTIVITY	CONTACT
* 3	1	1	2
SEVERE	SLIGHT	SLIGHT	MODERATE

Laboratory Protective Equipment



U.S. Precautionary Labeling

WARNING!

CAUSES IRRITATION. HOT MOLTEN MATERIAL CAUSES THERMAL BURNS. HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN. EXCEPTIONAL HEALTH HAZARD: READ MATERIAL SAFETY DATA SHEET.

Avoid contact with eyes, skin, clothing. Avoid breathing dust. Keep in tightly closed container. Use with adequate ventilation. Wash thoroughly after handling.

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PRECAUTIONARY LABELING (CONTINUED)

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International Labeling

Avoid contact with eyes. After contact with skin, wash immediately with plenty of water. Keep container tightly closed.

SAF-T-DATA\* Storage Color Code: Blue (health)

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SECTION II - COMPONENTS

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<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>
Biphenyl	92-52-4	90-100	0.2 ppm	0.2 ppm

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SECTION III - PHYSICAL DATA

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Boiling Point: 255°C (491°F)  
(at 760 mm Hg)

Vapor Pressure (mmHg): .005  
(20°C)

Melting Point: 70°C (158°F)  
(at 760 mm Hg)

Vapor Density (air=1): 5.3

Specific Gravity: 1.04  
(H<sub>2</sub>O=1)

Evaporation Rate: N/A

Solubility(H<sub>2</sub>O): Negligible (<0.1%)

% Volatiles by Volume: 0  
(21°C)

pH: N/A

Odor Threshold (ppm): N/A

Physical State: Solid

Coefficient Water/Oil Distribution: N/A

Appearance & Odor: White scales. Pleasant odor.



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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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Flash Point (Closed Cup): 112°C (235°F)      NFPA 704M Rating: 2-1-0

Autoignition Temperature: N/A

Flammable Limits:    Upper - 5.8 %    Lower - 0.6 %

Fire Extinguishing Media

Use water spray, carbon dioxide, dry chemical or ordinary foam.

Special Fire-Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode.

Unusual Fire & Explosion Hazards

None identified.

Toxic Gases Produced

carbon monoxide, carbon dioxide

Explosion Data-Sensitivity to Mechanical Impact

None identified.

Explosion Data-Sensitivity to Static Discharge

None identified.

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SECTION V - HEALTH HAZARD DATA

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Threshold Limit Value (TLV/TWA): 1.5 mg/m<sup>3</sup>      (0.2 ppm)

Short-Term Exposure Limit (STEL): 4 mg/m<sup>3</sup>      (0.6 ppm)

Permissible Exposure Limit (PEL): 1 mg/m<sup>3</sup>      (0.2 ppm)

Toxicity of Components

No information is available

Carcinogenicity:    NTP: No      IARC: No      Z List: No      OSHA Reg: No

Carcinogenicity

None identified.



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SECTION V - HEALTH HAZARD DATA (CONTINUED)

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Reproductive Effects  
None identified.

Effects of Overexposure

INHALATION: irritation of upper respiratory tract, irritation of mucous membranes

SKIN CONTACT: irritation

EYE CONTACT: irritation

SKIN ABSORPTION: rapid absorption

INGESTION: headache, nausea, vomiting, dizziness, gastrointestinal irritation, central nervous system depression

CHRONIC EFFECTS: central nervous system damage, liver damage

Target Organs

liver, central nervous system, eyes, skin, respiratory system

Medical Conditions Generally Aggravated by Exposure  
none identified

Primary Routes of Entry

inhalation, ingestion, absorption, eye contact, skin contact

Emergency and First Aid Procedures

INGESTION: CALL A PHYSICIAN. If swallowed, if conscious, immediately induce vomiting.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

SKIN CONTACT: In case of contact, flush skin with water.

EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

SARA/TITLE III HAZARD CATEGORIES and LISTS

Acute: No Chronic: Yes Flammability: No Pressure: No Reactivity: No

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SECTION V - HEALTH HAZARD DATA (CONTINUED)  
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Extremely Hazardous Substance: No  
CERCLA Hazardous Substance: No  
SARA 313 Toxic Chemicals: No  
TSCA Inventory: Yes

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SECTION VI - REACTIVITY DATA  
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Stability: Stable                                 Hazardous Polymerization: Will not occur  
Conditions to Avoid:     heat, flame, sources of ignition  
Incompatibles:           strong oxidizing agents  
Decomposition Products: carbon monoxide, carbon dioxide

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SECTION VII - SPILL & DISPOSAL PROCEDURES  
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Steps to be Taken in the Event of a Spill or Discharge

Wear self-contained breathing apparatus and full protective clothing. With clean shovel, carefully place material into clean, dry container and cover; remove from area. Flush spill area with water.

Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT  
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Ventilation:                                 Use general or local exhaust ventilation to meet TLV requirements.  
Respiratory Protection: A chemical cartridge respirator with organic vapor cartridge is recommended. If airborne concentration exceeds TLV, a self-contained breathing apparatus is advised.  
E / Skin Protection: Safety goggles, uniform, apron, rubber gloves are recommended.



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SECTION IX - STORAGE AND HANDLING PRECAUTIONS

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SAF-T-DATA\* Storage Color Code: Blue (health)

Storage Requirements

Keep container tightly closed. Store in secure poison area. Do not store near oxidizing materials.

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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

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Domestic (D.O.T.)

Proper Shipping Name: Chemicals, n.o.s. (Non-regulated)

International (I.M.O.)

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.  
(Diphenyl)

Hazard Class: 9 I.M.O. Page: 9028

UN: 3077 Marine Pollutants: Yes Packaging Group: III

AIR (I.C.A.O.)

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.  
(Diphenyl)

Hazard Class: 9 Packaging Group: III

UN: 3077

U.S. Customs Harmonization Number: 29029060003

EPA/TSCA Export Notification

Yes

N/A = Not Applicable or Not Available  
N/E = Not Established

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The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular

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 application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes.

Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, Baker cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Baker warrants that the chemical meets the specifications set forth on the label. BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Baker will periodically revise this Material Safety Data Sheet.

Note: CHEMTREC, CANUTEC, and NATIONAL RESPONSE CENTER emergency telephone numbers are to be used ONLY in the event of CHEMICAL EMERGENCIES involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

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 Approved by Quality Assurance Department.