

SDS

SAFETY DATA SHEET

Oakwood Products, Inc
730 Columbia HWY N
Estill, SC 29918
www.oakwoodchemical.com

Phone Numbers:

Product Information	803-739-8800
Transportation Emergency	800-451-8346
Outside the USA	760-602-8700

MATERIAL IDENTIFICATION

NAME: 4-Nitrobiphenyl
CAS#: [92-93-3]
CAT#: 210374
For R&D use only.

HAZARDS IDENTIFICATION**GHS Classification**

Carcinogenicity (Category 1B)

Hazardous to the aquatic environment, acute hazard (Category 2)

Hazardous to the aquatic environment, long-term hazard (Category 2)

GHS Label elements, including precautionary statements

Pictograms



Signal Word

Danger

Hazard Statement(s)

H350	May cause cancer
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Precautionary Statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage. Hazardous to the aquatic environment

COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : p-Phenylnitrobenzene, 1-Nitro-4-phenylbenzene
Formula : C₁₂H₉NO₂
Molecular Weight : 199.21 g/mol

CAS	Description	Concentration
92-93-3	4-Nitrobiphenyl	98%

FIRST AID MEASURES**In case of eye contact**

Immediately flush eyes with running water for at least 15 minutes while keeping eyes open. Seek medical attention.

In case of skin contact

Wash thoroughly with soap and plenty of water. Seek medical attention.

If inhaled

Remove victim from source of exposure to fresh air. If breathing is difficult, administer oxygen. Seek medical attention.

If swallowed

Do not induce vomiting. Give water to victim to drink. Seek medical attention.

FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use carbon dioxide, dry chemical powder, alcohol-resistant or polymer foam.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosion hazards/decomposition of product

emits toxic fumes under fire conditions.

ACCIDENTAL RELEASE MEASURES**Personal precautions**

Use personal protective equipment. Avoid breathing fumes, vapors, mists or gas. Ventilate area. Remove all sources of ignition. Evacuate personnel.

Environmental precautions

Prevent further leakage if safe to do so.

Methods and materials for containment and clean up

Absorb spills on sand or vermiculite and place in closed container for disposal.

HANDLING AND STORAGE**Precautions for safe handling**

Avoid prolonged use. Avoid all direct contact with material. Do not breathe dust or vapor. Wash thoroughly after handling.

Precautions for safe storage

Keep container tightly closed. Store in a cool, dry, well-ventilated area.

EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits:

		TWA	
Component Name (CAS)	Reference	ppm	mg/m3
4-Nitrobiphenyl (92-93-3)	OSHA	–	–

Personal protective equipment

Eye/face protection

Wear protective safety goggles or face shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand/skin protection

Avoid all direct contact with product.
Wear chemical-resistant gloves.
Wear protective clothing and boots.
After contact with skin, wash immediately.

Respiratory protection

Ensure adequate ventilation during use. Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the exposure limits.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light yellow solid
Odour	no data available
Odour Threshold	no data available
Melting point/Freezing Point	112-114°C
Boiling Point	no data available
Flash Point	no data available
Evaporation Rate	no data available
Flammability (solid, gas)	no data available
Upper/Lower Flammability or Explosive limits	no data available
Vapour pressure	no data available
Relative Density	no data available
Solubility(ies)	no data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Refractive Index	no data available

STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

May evolve carbon monoxide, carbon dioxide, and nitrogen oxides.

TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

Rat - 2,230 mg/kg

Remarks: Behavioral:Coma. Lungs, Thorax, or Respiration:Dyspnea. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

Rat

Liver

DNA damage

Rat

Liver

Unscheduled DNA synthesis

Rat

S. typhimurium

Host-mediated assay

Hamster

Embryo

Morphological transformation.

Hamster

ovary

Sister chromatid exchange

Hamster

Sister chromatid exchange

Carcinogenicity

Dog - Oral

Tumorigenic:Neoplastic by RTECS criteria. Kidney, Ureter, Bladder:Tumors.

Possible human carcinogen

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

Exposure Routes

Harmful to skin, eyes, and respiratory system.

May be toxic if inhaled or swallowed.

Signs and Symptoms of Exposure

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis.

Onset may be delayed 2 to 4 hours or longer.

Target Organs

Stomach - Irregularities - Based on Human Evidence

Additional Information

RTECS: DV5600000

To the best of our knowledge, the health hazards of this material have not been fully investigated.

ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

DISPOSAL CONSIDERATIONS

Dissolve in or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all Federal, State and local laws.

TRANSPORT INFORMATION**DOT**

Environmentally hazardous substance, solid, n.o.s.

9

UN3077 III

Reportable Quantity (RQ): 10 lbs

IMDG

Environmentally hazardous substance, solid, n.o.s.

9

UN3077 III

EMS-No: F-A, S-F

Marine Pollutant: No

IATA

Environmentally hazardous substance, solid, n.o.s.

9

UN3077 III

REGULATORY INFORMATION**SARA 302 Components**

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

SARA 313 Components

SARA 313: The following chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313:

	CAS
4-Nitrobiphenyl	92-93-3

New Jersey Right to Know Components

This product contains a chemical on the New Jersey Right to Know Components List.

	CAS
4-Nitrobiphenyl	92-93-3

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer, birth defects, or any other reproductive harm.

	CAS
4-Nitrobiphenyl	92-93-3

OTHER INFORMATION

Version : 1.2

Revision Date : 4/14/2016

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Oakwood shall not be held liable for any damage resulting from handling or from contact with the above product.