



Health	2
Fire	1
Reactivity	0
Personal Protection	E

Material Safety Data Sheet 2-Phenylphenol MSDS

Section 1: Chemical Product and Company Identification

Product Name: 2-Phenylphenol

Catalog Codes: SLP1267

CAS#: 90-43-7

RTECS: DV5775000

TSCA: TSCA 8(b) inventory: 2-Phenylphenol

CI#: Not available.

Synonym: 2-Hydroxybiphenyl

Chemical Name: 2-Biphenylol

Chemical Formula: C₁₂H₁₀O

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
{2-}Phenylphenol	90-43-7	100

Toxicological Data on Ingredients: 2-Phenylphenol: ORAL (LD50): Acute: 2000 mg/kg [Rat]. 1050 mg/kg [Mouse]. 500 mg/kg [Cat].

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of eye contact (irritant). Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant). Inflammation of the eye is characterized by redness, watering, and itching.

Potential Chronic Health Effects:

Slightly hazardous in case of skin contact (sensitizer). CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: 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 immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: 530°C (986°F)

Flash Points: CLOSED CUP: 124°C (255.2°F).

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances:

Flammable in presence of open flames and sparks. Slightly flammable to flammable in presence of heat.

Explosion Hazards in Presence of Various Substances:

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.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

Keep locked up.. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, alkalis.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Crystals solid.)

Odor: Phenolic (Slight.)

Taste: Not available.

Molecular Weight: 170.21 g/mole

Color: White-to-pinkish

pH (1% soln/water): Not applicable.

Boiling Point: 286°C (546.8°F)

Melting Point: 59°C (138.2°F)

Critical Temperature: Not available.

Specific Gravity: 1.213 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: The product is more soluble in oil; $\log(\text{oil/water}) = 3.1$

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether, acetone.

Solubility:

Soluble in diethyl ether, acetone. Insoluble in cold water, hot water. Soluble in most organic solvents including ethanol, isopropanol, ethylene glycol, glycoethers, polyglycols, and alkali hydroxide solutions.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excessive heat, dust generation, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, alkalis.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 500 mg/kg [Cat].

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data. May cause cancer based on animal test data. There is inadequate evidence in humans for carcinogenicity. May affect genetic material (mutagenic)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: Causes moderate skin irritation. Eyes: Causes severe eye irritation. Inhalation: May cause upper respiratory tract and mucous membrane irritation. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, cramps, and diarrhea. May affect behavior/central nervous system (ataxia, somnolence, headache, giddiness, nervousness, weakness, uncontrollable muscle twitches, convulsions, coma), respiration (respiratory depression, dyspnea), and cardiovascular (cardiac arrhythmias, various degrees of heart block, cardiac arrest) system. Other symptoms may include blurred vision, miosis, papilledema, sweating, loss of sphincter control. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause dermatitis. Ingestion: Prolonged or repeated ingestion may affect the urinary system (kidneys - renal failure, tubular necrosis), metabolism (weight loss), immune system, endocrine system (spleen, thymus), blood,

Section 12: Ecological Information

Ecotoxicity:

Ecotoxicity in water (LC50): 13.2 mg/l 96 hours [Fish (Fathead Minnow)]. 15 mg/l 48 hours [Daphnia (daphnia)]. 29 mg/l 48 hours [Daphnia (daphnia)].

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information**Federal and State Regulations:**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: 2-Phenylphenol California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: 2-Phenylphenol Pennsylvania RTK: 2-Phenylphenol Massachusetts RTK: 2-Phenylphenol New Jersey: 2-Phenylphenol New Jersey spill list: 2-Phenylphenol TSCA 8(b) inventory: 2-Phenylphenol SARA 313 toxic chemical notification and release reporting: 2-Phenylphenol

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC):

R33- Danger of cumulative effects. R36/37/38- Irritating to eyes, respiratory system and skin. R40- Possible risks of irreversible effects. R50- Very toxic to aquatic organisms. S22- Do not breathe dust. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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