# Material Safety Data Sheet
## 4-Phenylphenol, 97%

ACC# 57534

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** 4-Phenylphenol, 97%
**Catalog Numbers:** AC158710010, AC158710050, AC158712500
**Synonyms:** 4-Hydroxybiphenyl; 4-Biphenylol.
**Company Identification:**

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01
**For emergencies in the US, call CHEMTREC:** 800-424-9300

## Section 2 - Composition, Information on Ingredients

| CAS# | Chemical Name | Percent | EINECS/ELINCS |
|---|---|---|---|
| 92-69-3 | 4-Phenylphenol | 97 | 202-179-2 |

## Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white to light yellow flakes - powder.
**Warning!** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Causes skin irritation. May cause eye and respiratory tract irritation.
**Target Organs:** Skin.

**Potential Health Effects**
**Eye:** May cause eye irritation.
**Skin:** Causes skin irritation. May be harmful if absorbed through the skin.
**Ingestion:** May cause irritation of the digestive tract. May be harmful if swallowed.
**Inhalation:** May cause respiratory tract irritation. May be harmful if inhaled.
**Chronic:** No information found.

## Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
**Ingestion:** Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.
**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.
**Flash Point:** 165 deg C ( 329.00 deg F)
**Autoignition Temperature:** 250 deg C ( 482.00 deg F)
**Explosion Limits, Lower:**N/A
**Upper:** N/A
**NFPA Rating:** (estimated) Health: 2; Flammability: 1; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.
**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation.
**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
**Exposure Limits**

| Chemical Name | ACGIH | NIOSH | OSHA - Final PELs |
|---|---|---|---|
| 4-Phenylphenol | none listed | none listed | none listed |

**OSHA Vacated PELs:** 4-Phenylphenol: No OSHA Vacated PELs are listed for this chemical.
**Personal Protective Equipment**
**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
**Skin:** Wear appropriate protective gloves to prevent skin exposure.
**Clothing:** Wear appropriate protective clothing to prevent skin exposure.
**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Flakes - Powder
**Appearance:** white to light yellow
**Odor:** weak odor
**pH:** 7.0
**Vapor Pressure:** Not available.
**Vapor Density:** Not available.
**Evaporation Rate:**Not available.
**Viscosity:** Not available.
**Boiling Point:** 307 deg C @ 760.00mm Hg
**Freezing/Melting Point:**165 deg C
**Decomposition Temperature:**Not available.
**Solubility:** soluble in water : 0.7 g/l (20›c)
**Specific Gravity/Density:**Not available.
**Molecular Formula:**C12H10O
**Molecular Weight:**170.21

## Section 10 - Stability and Reactivity

**Chemical Stability:** Materials containing similar structural groups are normally stable.
**Conditions to Avoid:** Incompatible materials.
**Incompatibilities with Other Materials:** Oxidizing agents, strong bases.
**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.
**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**
**CAS#** 92-69-3: DV5850000
**LD50/LC50:**
Not available.

**Carcinogenicity:**
CAS# 92-69-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** NO information available.
**Teratogenicity:** Gavage Sprague-Dawley rats (67-15 day of gestation) 0, 100, 300 or 700 mg/kg/day no apparent teratogenic or embryotic effects were observed (John,J.A. Fundam.Appl.Toxicol.1981)
**Reproductive Effects:** No information available.
**Mutagenicity:** No information available.
**Neurotoxicity:** No information available.
**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. Fish toxicity : LC50 (96hr) bluegill sunfish 6 mg/l (Holcombe,G.W. et al Environ.Pollut,Ser.A1984) Invertebrate toxicity : EC50 (2 day) Tetrahymena pyriformis 13.7 mg/l (Schultz,T.W. Ecotoxicol. Environ. Saf. 1987) EC50 (5 min) Photobacterium phosphoreum 2.05 ppm Microtox test (Kaiser,K.L.E. water pollut. res. J.Can.1991)
**Environmental:** Nitrification inhibition : inhibition of nitrification on agar occured at 25 mg/l (Richardson,M. Nitrification Inhibition in the

treatment of sewage 1985) Degradation studies : In a mixed culture for the degradation of 2-phenylphenol only acetate was found as an intermediate (dose and duration unspecified) (Dietrich,G. DECHEMA Biotechnol. Conf. 1989) After 3 wk of adaption of 10-40mg/l at 22øC, 100% degradation under aerobic conditions, as sole carbon source or with synthetic sewage (Voets,J.P. J.Appl.Bacteriol.1976)
**Physical:** No information found.
**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
**RCRA P-Series:** None listed.
**RCRA U-Series:** None listed.

## Section 14 - Transport Information

| | US DOT | Canada TDG |
|---|---|---|
| **Shipping Name:** | Not regulated as a hazardous material | No information available. |
| **Hazard Class:** | | |
| **UN Number:** | | |
| **Packing Group:** | | |

## Section 15 - Regulatory Information

### US FEDERAL

**TSCA**
CAS# 92-69-3 is listed on the TSCA inventory.
**Health & Safety Reporting List**
CAS# 92-69-3: Effective 6/1/87, Sunset 12/19/95
**Chemical Test Rules**
None of the chemicals in this product are under a Chemical Test Rule.
**Section 12b**
None of the chemicals are listed under TSCA Section 12b.
**TSCA Significant New Use Rule**
None of the chemicals in this material have a SNUR under TSCA.
**CERCLA Hazardous Substances and corresponding RQs**
None of the chemicals in this material have an RQ.
**SARA Section 302 Extremely Hazardous Substances**
None of the chemicals in this product have a TPQ.
**Section 313** No chemicals are reportable under Section 313.
**Clean Air Act:**
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
**Clean Water Act:**
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
**OSHA:**
None of the chemicals in this product are considered highly hazardous by OSHA.
**STATE**
CAS# 92-69-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations
**European Labeling in Accordance with EC Directives**
**Hazard Symbols:**
XI N
**Risk Phrases:**
R 38 Irritating to skin.
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**
S 36 Wear suitable protective clothing.
S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

**WGK (Water Danger/Protection)**
CAS# 92-69-3: 2
**Canada - DSL/NDSL**
CAS# 92-69-3 is listed on Canada's DSL List.
**Canada - WHMIS**
This product has a WHMIS classification of D2B.

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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
**Canadian Ingredient Disclosure List**

## Section 16 - Additional Information

**MSDS Creation Date:** 2/15/1999
**Revision #4 Date:** 11/03/2005