

Material Safety Data Sheet

2-Phenylphenol, 99+%

ACC# 82669

Section 1 - Chemical Product and Company Identification

MSDS Name: 2-Phenylphenol, 99+%

Catalog Numbers: AC130760050, AC130765000

Synonyms: 2-Biphenylol; Biphenyl, 2-hydroxy-; (1,1'-Biphenyl)-2-ol; o-Biphenylol; 2-Hydroxybiphenyl; o-Hydroxydiphenyl; o-Hydroxybiphenyl; 2-Hydroxydiphenyl; Orthohydroxydiphenyl; Orthophenylphenol; Orthoxenol; Phenol, o-phenyl-; o-Phenylphenol; o-Xenol

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
90-43-7	2-Phenylphenol	99+	201-993-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white crystals.

Warning! Causes eye, skin, and respiratory tract irritation. This substance has caused adverse reproductive and fetal effects in animals. The toxicological properties of this material have not been fully investigated.

Target Organs: Kidneys.

Potential Health Effects

Eye: Causes severe eye irritation and possible burns.

Skin: Causes moderate skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: Inhalation of dust may cause respiratory tract irritation. Causes irritation of the mucous membrane and upper respiratory tract.

Chronic: May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects.

Section 4 - First Aid Measures

Eyes: Immediately 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. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid. 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: 123 deg C (253.40 deg F)

Autoignition Temperature: > 520 deg C (> 968.00 deg F)

Explosion Limits, Lower: 1.40 vol %

Upper: 9.50 vol %

NFPA Rating: (estimated) Health: 3; 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. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Do not breathe dust or fumes.

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 ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2-Phenylphenol	none listed	none listed	none listed

OSHA Vacated PELs: 2-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: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Crystals

Appearance: white

Odor: mild odor - characteristic odor

pH: Not available.

Vapor Pressure: 7 mm Hg @ 140C

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: 2.4 mPas 100. deg C

Boiling Point: 282 deg C @ 760.00mm Hg

Freezing/Melting Point: 57.0 - 59.0 deg C

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: 1.2130g/cm3

Molecular Formula: C12H10O

Molecular Weight: 170.21

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, dust generation, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents, strong bases.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 90-43-7: DV5775000

LD50/LC50:

CAS# 90-43-7:

Draize test, rabbit, eye: 50 ug/24H Severe;

Draize test, rabbit, skin: 250 mg;

Draize test, rabbit, skin: 20 mg/24H Moderate;

Oral, mouse: LD50 = 1050 mg/kg;

Oral, rat: LD50 = 2 gm/kg;

Oral, rat: LD50 = 2700 mg/kg;

Carcinogenicity:

CAS# 90-43-7:

- **ACGIH:** Not listed.
- **California:** carcinogen, initial date 8/4/00
- **NTP:** Not listed.
- **IARC:** Not listed.

Epidemiology: Oral, rat: TDLo = 478 gm/kg/91W-C (Tumorigenic - Carcinogenic by RTECS criteria - Liver - tumors).; Oral, rat: TD = 478 gm/kg/91W-C(Tumorigenic - Carcinogenic by RTECS criteria - Kidney, Ureter, Bladder - tumors).; Oral, rat: TD = 135 gm/kg/26W-C (Tumorigenic - neoplastic by RTECS criteria - Kidney, Ureter, Bladder - tumors).

Teratogenicity: Oral, rat: TDLo = 6 gm/kg (female 6-15 day(s) after conception) Effects on Embryo or Fetus - fetotoxicity (except death, e.g., stunted fetus) and Effects on Embryo or Fetus - fetal death.; Oral,mouse: TDLo = 13050 mg/kg (female 7-15 day(s) after conception)Specific Developmental Abnormalities - Central Nervous System, eye/ear, and musculoskeletal system.; Oral, mouse: TDLo = 13050 mg/kg (female 7-15 day(s) after conception) Effects on Embryo or Fetus - fetotoxicity (except death, e.g., stunted fetus).

Reproductive Effects: Oral, rat: TDLo = 52168 mg/kg (male 13 week(s) pre-mating) Paternal Effects - testes, epididymis, sperm duct and Paternal Effects - prostate, seminal vesicle, Cowper's gland, accessory glands.;

Mutagenicity: Cytogenetic Analysis: Human Fibroblast = 200 ug/L.; Mutation in Mammalian Somatic Cells: Human Embryo = 20 mg/L.; Mutation in Mammalian Somatic Cells: Human Cells - not otherwise specified= 15 mg/L.

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: LC50 = 13.2 mg/L; 96 Hr; Flow-through at 25.0-27.8 C (pH 6.9-7.7)Fish: Bluegill/Sunfish: LC50 = 6 mg/L; 96 Hr; UnspecifiedWater flea Daphnia: EC50 = 15 mg/L; 48 Hr; Unspecified (6-24 hr old)Bacteria: Phytobacterium phosphoreum: EC50 = 2.05 mg/L; 5 min; Microtox test Biodegradation in soil and water is expected to be one of the most important fate processes. Acclimated microbes can apparently biodegrade 2-phenylphenol readily at concentrations which may occur in most soils, waters and effluents. In a spill situation, however, this substance is likely to be toxic to local microbial populations.

Environmental: Estimated Koc values = 120 and 1600. These values indicate that 2-phenylphenol will show low to moderate potential to leach into most soil systems. Estimated BCF values = 15 and 607. The BCF value of 607 may suggest a moderate potential for bioconcentration. 2-phenylphenol existing in the gas-phase in the ambient atmosphere degrades rapidly by reaction with photochemically-produced hydroxyl radicals with a half-life of 13 hours. This substance degrades very rapidly in night-time air via reaction with nitrate radicals.

Physical: No information available.

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# 90-43-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

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.

SARA Codes

CAS # 90-43-7: immediate.

Section 313

This material contains 2-Phenylphenol (CAS# 90-43-7, 99+%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

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# 90-43-7 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

California Prop 65

The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:

WARNING: This product contains 2-Phenylphenol, a chemical known to the state of California to cause cancer.

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

Risk Phrases:

R 36/38 Irritating to eyes and skin.

Safety Phrases:

S 22 Do not breathe dust.

WGK (Water Danger/Protection)

CAS# 90-43-7: 2

Canada - DSL/NDSL

CAS# 90-43-7 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2A.

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

CAS# 90-43-7 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 2/15/1999

Revision #3 Date: 10/03/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.