



**MATERIAL SAFETY
DATA SHEET**

P-102 PRESERVATIVE

DATE: 08/22/2006

CAS NO: 132-27-4

SUPERSEDES: 4/22/2005

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: P-102 PRESERVATIVE
CHEMICAL NAME: (1,1'-Biphenyl)-2-ol, sodium salt
SYNONYMS: Sodium o-phenylphenolate; sodium o-phenylphenol; sodium o-phenylphenate; sodium o-phenylphenoxide
CHEMICAL FAMILY: Phenol
MOLECULAR FORMULA: C₁₂H₁₀O Na
MOLECULAR WEIGHT: 192

VERICHEM, 3499 Grand Avenue, Pittsburgh, PA 15225 (412-331-7299, 8:30 am to 5:00 pm)

EMERGENCY PHONE: For any emergency involving spill, leak, fire, exposure, or accident call CHEMTREC: 1-800-424-9300. Outside the USA and Canada call: 703-527-3887.

2. COMPOSITION/INFORMATION ON INGREDIENTS

REGULATED COMPONENTS

COMPONENT	CAS NUMBER	PERCENT	WORKER EXPOSURE	REFERENCE
Sodium Orthophenylphenate	132-27-4	71.7%	None Established	OSHA N/A ACGIH N/A

3. HAZARDS IDENTIFICATION

Appearance: Colorless and nearly odorless flakes or powder.

EMERGENCY OVERVIEW

DANGER! CORROSIVE: Causes severe eye burns. Causes respiratory tract irritation; stay upwind of spill. Causes skin burns. Harmful if swallowed.

POTENTIAL HEALTH EFFECTS / ROUTE OF ENTRY: Eye Contact, Inhalation, Skin Contact and Ingestion.

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

Acute Eye Contact: corrosive to the eye resulting in burning, reddening, and swelling of the eye and surrounding tissue, in severer cases permanent injury may occur.

Acute Inhalation: may cause irritation resulting in coughing, sore throat, burning sensation and running nose. **Acute Skin Contact:** corrosive to the skin resulting in burning, reddening, swelling and blistering.

Acute Ingestion Based: slightly toxic by ingestion. Ingestion of this product may cause irritation and burning of the digestive tract.

Persons with impaired pulmonary function or persons with pre-existing eye or skin conditions may be more susceptible to effects of this product.

4. **FIRST AID MEASURES**

EYE CONTACT: In case of contact, immediately flush eyes with plenty of water for at least 15-20 minutes. If present, remove contact lenses after 5 minutes of continual water flush. Get medical attention immediately. Call a physician, preferable an ophthalmologist, for medical advice.

SKIN CONTACT: In case of contact, immediately wash skin with plenty of water and soap for at least 15-20 minutes while removing contaminated clothing and shoes. Call Poison Control Center or doctor for medical advice. Thoroughly wash clothing before reuse. Discard leather items such as, shoes.

INHALATION: If inhaled, move person to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call Poison Control Center or doctor for medical advice.

INGESTION: If swallowed, call Poison Control Center or doctor for medical advice. Do not induce vomiting. Have person sip water if able to swallow. Never give anything by mouth to an unconscious person.

5. **FIRE FIGHTING MEASURES**

FLASH POINT: >115° C (>239° F) Closed cup

EXTINGUISHING MEDIA: Water; Dry Chemical; Carbon Dioxide; Foam

AUTOIGNITION TEMPERATURE: 399° C (750° F)

SPECIAL FIREFIGHTING PROCEDURES: Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Avoid dusting. Dust can form explosive mixtures with air.

6. **ACCIDENTAL RELEASE MEASURES**

SPILL OR LEAK PROCEDURES: Utilize recommended protective clothing and equipment (Section 8). Spills should be swept up and placed in suitable and properly labeled containers. After initial cleanup, spill can be washed with water and collected for approved disposal. Prevent material from entering sewers and waterways.

7. **HANDLING AND STORAGE**

STORAGE TEMPERATURE: Ambient

SHELF LIFE: Twenty four (24) months, if protected from light and moisture.

HANDLING AND STORAGE PRECAUTIONS: Avoid breathing dust. Avoid contact with eyes and skin. Wash thoroughly after handling. Store in a dry place away from food and drink. Reseal containers immediately after use. Use in well ventilated areas. Adopt precautionary measures against the build-up of electrostatic charges.

8. **PERSONAL PROTECTION**

EYE PROTECTION REQUIREMENTS: Chemical safety goggles and face shield.

SKIN PROTECTION REQUIREMENTS: Wear rubber gloves, long pants, long sleeved shirt and chemical resistant shoes and depending on task, a chemical apron or tyvek suit.

VENTILATION REQUIREMENTS: Local exhaust ventilation.

RESPIRATOR REQUIREMENTS: In case of dust formation, a NIOSH/MSHA approved dust respirator should be worn.

ADDITIONAL PROTECTIVE MEASURES: Emergency showers and eye wash stations should be available. Educate and train employees on the safe use and handling of the product.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL FORM:

Flakes or powder

COLOR:

White to off white

ODOR:

Nearly Odorless

pH:

11.1 to 11.8 at 20 g/l water

BOILING POINT:

Not applicable.

MELTING/FREEZING POINT:

mP = 47 – 130° C (117 – 266° F)

SOFTENING POINT:

Approx. 176 F (80 C)

SOLUBILITY IN WATER:

1200 g/l at 77 F (25C) [53.7% @ 25° C – by weight]

SPECIFIC GRAVITY:

Approximately 1.36 g/cm³ at 68 F (20 C)

BULK DENSITY:

Flakes: 400-450 kg/m³; Powder: 500-550 kg/m³

VAPOR PRESSURE:

Expected to be low

10. **STABILITY AND REACTIVITY**

STABILITY:
HAZARDOUS POLYMERIZATION
INCOMPATIBILITIES:
DECOMPOSITION PRODUCTS:

This is a stable material at typical use temperatures.
Will not occur
Oxidizing and reducing agents, strong acids.
CO, CO₂, and other potentially toxic fumes.

11. **TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY
ORAL LD₅₀:
INHALATION LC₅₀:

1720 mg/kg (Rat).
Greater than 1331 mg/l (Rat), 1 hour exposure.
The concentration of 1331 mg/l caused no symptoms

EYE EFFECTS:
SKIN EFFECTS:
DERMAL LD₅₀:
SENSITIZATION (GUINEA PIG):
CARCINOGENICITY:

Corrosive (Rabbits).
Corrosive (4h) (Rabbits).
Greater than 2000 mg/kg (Rat).
Not a sensitizer
Sodium o-phenylphenate produced urinary bladder carcinomas in rats following its oral administration. It increased the incidences of tumors of the liver and of hepatocellular carcinomas in male mice after its oral administration at exaggerated doses. When given in the diets of rats, it enhanced N-nitroso-N-(4-hydroxybutyl)-N-butylamine.¹

MUTAGENICITY:

Female mice exposed to 900 mg/kg; total dose of sodium o-phenylphenate 7-15 days after conception produced offspring with musculoskeletal defects.²

¹ IARC Monographs Supplement 7, Page 392, 1987

² RTECS (Registry of Toxic Effects of Chemical Substances)

12. **ECOLOGICAL INFORMATION**

MATERIAL IS HIGHLY TOXIC TO AQUATIC ORGANISMS

Aquatic

LD₅₀ Fish-Rainbow Trout: 2.6 mg/l (96 hr)
LD₅₀ Invertebrate (Daphnia Magna): 3.8 mg/l
LD₅₀ Invertebrate (saltwater mysid): 0.32 mg/l (96 hr)

Avian

LD₅₀ Bobwhite oral: 1000 mg/kg
LD₅₀ Bobwhite dietary: >5620 mg/kg
LD₅₀ Mallard dietary: >5620 mg/kg

BIOLOGICAL OXYGEN DEMAND: Greater than 80% degradation; closed bottle test.

13. **DISPOSAL CONSIDERATION**

WASTE DISPOSAL METHOD: Waste disposal should be in accordance with existing federal, state and local environmental regulation. All handling precautions for full containers must be followed for empty containers when containers have been passed on for reconditioning or disposal, the recipient must advise of the products hazards.

14. **TRANSPORT INFORMATION**

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

	D.O.T. Shipping Information	IMO Shipping Information	ICAO/IATA	TRANSPORT CANADA
Shipping Name	Corrosive solid, basic, organic, n.o.s.	Corrosive solid, basic, organic, n.o.s.	Corrosive solid, basic, organic, n.o.s.	Corrosive solid, basic, organic, n.o.s.
Hazard Class	8	8	8	8
Packing Group	III	III	III	III
Subsidiary Class	---	---	---	---
UN/ID Number	3263	3263	3263	3263
Transport Label Required	Corrosive	Corrosive	Corrosive	Corrosive
Packing Instructions Passenger Cargo				
Max. Net Quantity Passenger Cargo				
D.O.T. Hazardous Substances	Corrosive	Corrosive	Corrosive	

15. **REGULATORY INFORMATION**
INVENTORY INFORMATION

OSHA STATUS: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200

TSCA STATUS: This product is exempt from TSCA Regulation under FIFRA Section 3 (2) (B) (ii) when used as a pesticide.

FIFRA STATUS: This product is registered with the EPA under FIFRA; EPA Registration Number 39967-24-67869

CERCLA REPORTABLE QUANTITY: None

SARA TITLE III:

Section 302 Extremely Hazardous Substances: None

Section 311/312 Hazardous Categories: Immediate Health Hazard; Delayed Health Hazard.

Section 313 Toxic Chemicals: Sodium o-phenylphenate (CAS # 132-27-4)

California Proposition 65 (Safe Drinking Water and toxic Enforcement Act of 1996: Warning! This product contains a chemical known to the State of California to cause cancer.

RSCA STATUS: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

16. **OTHER INFORMATION**

NFPA HAZARD RATING (NATIONAL FIRE PROTECTION ASSOCIATION)

FIRE: 1
HEALTH: 3
REACTIVITY: 0

THE INFORMATION ON THIS DATA SHEET IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION, AND INVESTIGATION, AND REPRESENTS OUR CURRENT DATA AND BEST OPINION AS TO THE PROPER USE OF THIS PRODUCT UNDER NORMAL CONDITIONS. ANY USE OF THE PRODUCT WHICH IS NOT IN CONFORMANCE WITH THIS DATA SHEET OR WHICH INVOLVES USING THE PRODUCT IN COMBINATION WITH ANY OTHER PRODUCT OR ANY OTHER PROCESS IS THE RESPONSIBILITY OF THE USER. THIS INFORMATION IS PROVIDED WITHOUT WARRANTIES, EITHER EXPRESSED, OR IMPLIED, AND WE ASSUME NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE DATA CONTAINED HEREIN.