



**MATERIAL
SAFETY DATA
SHEET**

P-2 PRESERVATIVE

DATE: 08/22/2006

CAS NO: 59-50-7

SUPERSEDES: 2/01/05

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: P-2 PRESERVATIVE
SYNONYMS: Parachlorometacresol
CHEMICAL FAMILY: Aromatic Halogen
MOLECULAR FORMULA: C₇H₇ClO
MOLECULAR WEIGHT: 142

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

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
Parachlorometacresol	59-50-7	99%	None Established	ACGIH/OSHA

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE AND ODOR: White pellets with phenolic odor.

EFFECTS OF OVEREXPOSURE: Corrosive to eyes. May produce irritation/sensitization.

PHYSICAL/CHEMICAL HAZARDS: Environmentally hazardous by transportation.

4. FIRST AID MEASURES (IN CASE OF CONTACT)

IF IN EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Get medical attention. Remove contact lenses, if present, after the first 5 minute, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **IF ON SKIN:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. **IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. **IF INHALED:** Move person to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth. Call a poison control center or doctor for treatment advice. **Have the product container or label with you when calling a poison control center or doctor, or going for treatment.**

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: 244°F/118°C.
FLAMMABLE LIMITS (% BY VOLUME): Not Applicable.
AUTOIGNITION TEMPERATURE: 1094°F/ >590°C.
DECOMPOSITION TEMPERATURE: Unknown.

EXTINGUISHING MEDIA AND FIRE FIGHTING INSTRUCTION

In case of fire use water spray, alcohol foam, carbon dioxide, or dry chemicals. Exercise caution when fighting fires involving chemical substances. Respiratory protection is required. Burning will produce toxic fumes. Containers exposed to heat will result in pressure increase in containers. Cool hot containers with cool water.

6. **ACCIDENTAL RELEASE MEASURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Immediately dike material to keep away from water sources. Absorb with vermiculite or other suitable absorbent. Discard in accordance with Federal, State, and local regulations. Residual amounts left on surface may be cleaned with soap and water. Rinse residuals to municipal treatment plant.

7. **HANDLING AND STORAGE**

HANDLING: Avoid breathing dust. Avoid contact with eyes and skin. Wash thoroughly after handling.

STORAGE: Store in a dry place away from excessive heat. Avoid contact with moisture. Reseal containers immediately after use. Store away from food and beverages. Adopt precautionary measures against the build-up of electrostatic charges. Store under 104°F/40°C. Material is stable for one year.

8. **PERSONAL PROTECTION**

EYE PROTECTION REQUIREMENTS: Chemical safety goggles.

SKIN PROTECTION REQUIREMENTS: Rubber gloves and chemically resistant clothing to minimize skin contact. Employees should wash their hands and face before eating, drinking, or using tobacco products.

VENTILATION REQUIREMENTS: Use local and general exhaust ventilation to control levels of exposure.

RESPIRATOR REQUIREMENTS: An air-purifying particulate/organic vapor cartridge respirator is required any time inhalation of dust or vapor is possible. Observe OSHA regulations for respirator use (29 CFR 1910.134).

ADDITIONAL PROTECTIVE MEASURES: Emergency showers and eye wash stations should be available. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees on the safe use and handling of the product.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE AND ODOR:	Solid white pellets.
BOILING POINT:	462°F/239°C.
MELTING POINT:	145-149°F/63-65°C.
VAPOR PRESSURE:	0.08 mbar (68°F)/70 mbar @ 212°F
SPECIFIC GRAVITY:	1.37 g/ml @ 20°C.
VAPOR DENSITY:	Unknown.
PERCENT VOLATILE (BY WEIGHT):	<1
pH:	Not Applicable.
SATURATION IN AIR (PERCENT BY VOLUME):	
EVAPORATION RATE:	Unknown.
SOLUBILITY IN WATER:	4 g/l @ 20°C/7 g/l @ 50°C.

10. **STABILITY AND REACTIVITY**

STABILITY (CONDITIONS TO AVOID):	Stable.
POLYMERIZATION (CONDITIONS TO AVOID):	None.
INCOMPATIBLE MATERIALS:	Unknown.
HAZARDOUS DECOMPOSITION PRODUCTS:	Thermal decomposition may produce CO, CO ₂ , and other potentially toxic fumes or vapors.

11. **TOXICOLOGICAL INFORMATION**

ACUTE EFFECTS

EYE: Corrosive (Rabbits).

SKIN CONTACT: Causes skin burns.

SKIN ABSORPTION: LD₅₀ >5000 mg/kg (Rat).

INGESTION: LD₅₀ 1830 mg/kg (Rat) (1,2); 1800-5000 mg/kg (Rat); 1449 mg/kg (bobwhite quail).

INHALATION: LC₅₀ >704 mg/m³ – 4 hours of exposure. Inhalation of >704 mg/m³ caused no deaths (Rats).

SENSITIZATION: In a patch-test according to the Draize procedure, using induction concentrations of 5-10-20% and a challenge concentration of 5%, none out of 252 total human subjects were sensitized. Repetition of the preceding procedure with 5% induction solution in petrolatum and 5% challenge solution gave no sensitization in 31 humans. By means of maximization test according to Magnusson-Klingman, using 1% induction concentrations by intradermal injection, the following challenge by topical application caused a low degree sensitization in guinea pigs. By means of open epicutaneous test according to Klecak, using induction concentrations of 1-3-10-30% and challenge concentrations of 3-10-30-100%, no indication of sensitizing effects could be found on the skin of female guinea pigs.

SUBCHRONIC / CHRONIC EFFECTS

TOXICITY: Wistar rats were administered P-2 Preservative for three months at the following concentrations in their diet: 0-150-500-1500 mg/kg. The dose of 150 mg/kg was tolerated without any effects by males, as were the doses up to and including 1500 mg/kg by the female.

CARCINOGENICITY: This product is not listed by NTP, IARC or regulated as a carcinogen by OSHA. The EPA has classified Parachlorometacresol as Group D, not classifiable as to human carcinogenicity, by the EPA.

CHROMOSOMES: This product was tested for mutagenic effects in the Salmonella/Microsome test at doses of up to 12500 ug per plate on four Salmonella/typhimurium. There were no indications of a mutagenic effect of P-2. The number of mutants neither showed a dose-related doubling nor a biologically relevant increase in comparison to the negative controls.

12. **ECOLOGICAL INFORMATION**

FISH AND WILDLIFE

AQUATIC: LC₀ – 0.5 mg/l/48 hours. (Leuciscus idus); LC₅₀: 1.2 mg/l/48 hours (Leuciscus idus); LC₁₀₀: 2.0 mg/l/48 hours. (Leuciscus idus); LC₅₀: 1.2 LOEC: 3.2 mg/l – 14 day fish toxicity study (Brachydanio rerio); NOEC: 1.0 mg/l – 14 day fish toxicity study (Brachydanio rerio); ECO: 2.0 mg/l/24 hours (Daphnia magna); EC₅₀: 5.6 mg/l/24 hours (Daphnia magna); EC₁₀₀: 9.0 mg/l/24 hours (Daphnia magna); EC₅₀: 2.29 mg/l/48 hours (Daphnia magna); LC₅₀: 3.90 mg/l/48 hours (Daphnia magna); NOEC: 1.73 mg/l/48 hours (Daphnia magna); LC₅₀: 917 ug/l/96 hours, rainbow trout (Oncorhynchus mykiss); NOEC: 366 ug/l/96 hours, rainbow trout (Oncorhynchus mykiss)

1 Occupation Health Services (OHS) Material Safety Data Sheet.

2 NIOSH Registry of Toxic Effects of Chemical Substances (RTECS).

AVIAN LIFE: In an acute oral toxicity study using the bobwhite quail as the test animal, the highest no-observed-effect concentration (NOEC) was 125 mg/kg and the lowest-observed-effect concentration (LOEC) was 250 mg/kg.

ENVIRONMENTAL FATE

BIODEGRADATION: No information available

13. **DISPOSAL CONSIDERATION**

ACTION TO TAKE IN THE EVENT OF A SPILL: Utilize protective clothing and equipment (see Section VII). Spills should be taken up mechanically and placed into labeled, closable containers. Avoid generation of dust. Spill area can be washed with water. Collect wash water for approved disposal.

DISPOSAL METHOD: Waste disposal should be in accordance with existing federal, state and local environmental regulations. All precautions for full containers must be followed for empty containers when they have been passed on for reconditioning or reuse. The recipient must be advised of the product contents.

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	Environmentally hazardous substance, solid, n.o.s.	Not Regulated	Environmentally hazardous substance, solid, n.o.s.	Not Regulated
Hazard Class	9	Not Regulated	9	
Packing Group	III	Not Regulated	III	
Subsidiary Class	W/N	Not Regulated	W/N	
UN/ID Number	UN 3077	Not Regulated	UN 3077	
Transport Label Required	Class 9	Not Regulated	Class 9	
Packing Instructions Passenger Cargo		Not Regulated	911 No Limit	
Max. Net Quantity Passenger Cargo		Not Regulated	911 No Limit	
D.O.T. Hazardous Substances	4-choro-m-cresol	Not Regulated		
IMDG Page		Not Regulated		

15. REGULATORY INFORMATION**INVENTORY INFORMATION**

US TSCA: Yes.

CANADA DSL: Yes.

EEC EINECS: Yes.

OTHER ENVIRONMENTAL INFORMATION

The following components are defined as toxic chemicals subject to reporting requirements of Section 313 of Title III and of 40 CFE 372 or subject to other EPA regulations.

COMPONENT: None.

CAS. NUMBER: 59-50-7

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA

ACUTE: (Y)

CHRONIC: (Y)

FIRE: (N)

REACTIVE: (N)

PRESSURE: (N)

16. OTHER INFORMATION**NFPA HAZARD RATING (3) (NATIONAL FIRE PROTECTION ASSOCIATION)**

FIRE: 1

HEALTH: 2

REACTIVITY: 0

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