



MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name : Catamaran®
General Use : Fungicide
EPA Reg. No. : 42519-31

2. COMPOSITION / INFORMATION ON INGREDIENTS

ACTIVE INGREDIENT

Chemical Name : Potassium phosphite + Chlorothalonil
Molecular Weight : 158.17 120.07 + 265.9
Formula : $\text{KH}_2\text{PO}_3 + \text{K}_2\text{HPO}_3 + \text{C}_8\text{Cl}_4\text{N}_2$

<u>Component</u>	<u>CAS Registry</u>	<u>Wt%</u>
Potassium phosphite	13977-65-6	39
Chlorothalonil	1897-45-6	16.7

3. PHYSICAL DATA

Appearance : Off-white to brownish liquid
Suspension
Odor : Faint paint-like odor
Density : 1.5 – 1.6 g/l
Melting Point : N.A.
Boiling Point : 100°C (water)
Freezing Point : Lower than -15°C
Solubility in Water (% by Wt.) : Chlorothalonil - insoluble
Potassium phosphite:
Very soluble
pH : 6-7
Percent Volatiles (by volume) : 500 gr/l (only water)
Vapor Pressure : Of water
Evaporation Rate (n-BuAc = 1) : Of water

4. FIRE AND EXPLOSION DATA

Flashpoint and Method : Non-flammable
Flammable Limits : NA
Autoignition Temperature : NA
Extinguishing Media : NA
Special Fire Fighting Procedures : NA
Unusual Fire and Explosion Hazard : Hazardous with
Oxidizing materials

5. HEALTH HAZARD INFORMATION

Oral Toxicity (LD₅₀), rat : > 5000 mg/kg
Dermal Toxicity (LD₅₀), rat : > 5000 mg/kg
Inhalation (4-hour LC₅₀), rat : > 5.09 mg/l
Eye Irritation, rabbit : Moderately irritating to eyes
Skin Irritation, rabbit : Slightly irritating to skin
Dermal Sensitization, guinea pig : Sensitizer

Potential Health Effects:

Inhalation: Chlorothalonil is very toxic by inhalation. Unlikely to be hazardous by inhalation unless present as a dust.

Irritation: Chlorothalonil is a severe eye and skin irritant.

Skin sensitization: Exposure of the skin to Chlorothalonil results in weak contact dermatitis.

Respiratory irritation: Chlorothalonil may cause irritant and very rarely, allergic responses of the respiratory system.

Long term effects: Repeated exposure of animals to Chlorothalonil has produced adverse effects on the kidneys.

Emergency First Aid Procedures:

Inhalation: Remove patient from exposure, keep warm and at rest. Obtain medical attention.

Ingestion: If swallowed seek medical advice immediately and show container, label, or this data sheet, if possible. If patient is conscious, wash mouth with water.

Eye irritation: Hold eye open and rinse slowly and gently with water for 15-20 minutes.

Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

Obtain immediate medical attention.

Skin: Take off immediately all contaminated clothing. Wash skin immediately with water, followed by soap and water. Such action is essential to minimize contact with skin. Wash clothing before re-use.

Notes to Physician:

Chlorothalonil may produce temporary allergic reactions (redness or rash on exposed skin).

Antihistamines or steroid creams are effective treatment.

6. REACTIVITY DATA

Stability: Stable under normal conditions.

Incompatibility: With strong acids, base and oxidizing agents.

Hazardous Decomposition Products: Combustion or thermal decomposition will evolve toxic and irritant vapours.

Hazardous Polymerization: Will not occur.

7. SPILL OR LEAK PROCEDURE

Steps to be Taken if Material is Released or spilled: Stop leak if possible. Contain product with an inert diking material. Vacuum up as much as possible. Place reclaimed product in a closed and properly labeled waste drum. Store drum in separate area until proper disposal. Flush residue with water. Wash thoroughly after handling.

Waste Disposal Method: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If spilled, flush with water. Washings must be prevented from entering surface water drains.

Spillages or uncontrolled discharge into water must be alerted to the appropriate authorities.

8. SPECIAL PROTECTION INFORMATION

Eye Protection: Wear safety goggles while handling the product.

Gloves: Wear waterproof gloves while handling the product.

Other Protective Equipment: Wear long-sleeved shirt and long pants and shoes plus socks.

Occupational exposure limits:

Chlorothalonil: 8 hr TWA: 0.1 mg/m³

9. SPECIAL PRECAUTIONS

Precautionary Labeling: Keep out of reach of children.

Storage and Disposal: Store in a dry, cool place. Keep the product in the original container, away from food, animal foodstuffs and out of reach of children. Store the product in its original package in a safe place. Keep out of reach of children and unauthorized persons. Separate from chlorates, nitrates and other oxidizing materials. Do not reuse empty container. Wash empty packages three times with water and pour the washing water to the tank sprayer. Make holes in the bottom of the empty packages and bury them in the soil far away from water sources.

Dispose of empty package in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

10. ADDITIONAL INFORMATION**TRANSPORTATION INFORMATION****Transportation classification****Maritime transport IMDG**

Class: 9

UN No.: 3082

Packing gr.: III

Ems: None

MFAG: None

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (chlorothalonil)

ENVIRONMENTAL HAZARDS

Keep children and domestic animals off treated areas until the product has been washed into the soil. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water by cleaning of equipment or disposal of waste.

ECOTOXICITY

Toxicity to Fish, LC₅₀, 96 hr.: 0.307 ppm

Avian toxicity, LD₅₀, 14 days: > 2000 mg/kg bodyweight

Honey bee, LD₅₀, 48 hr.: > 100 microgram per bee

The information contained herein is applicable solely to the indicated product, and does not relate to any other use of this product as described. Its use is intended by persons having technical skill and at their own discretion and risk. The information has been developed from sources reliable. This information is furnished without warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose is made with respect to the information contained herein.

