Propargite -MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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1. Chemical Product Identification

Product Name: Propargite Molecular Formula: C₁₉H₂₆O₄S Molecular Weight: 350.5 Structural Formula:



Chemical Name: 2-(p-tert-butylphenoxy) cyclohexyl 2-propynyl sulfite

Form: liquid

Color: amber

Odor: Faint solvent odor to very faint solvent odor.

CAS No.: 2312-35-8

2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Propargite	2312-35-8	90.00
Other ingredient		10.00

3. Hazards Identification

Component	Sympol	R phrases
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Propargite T	R10/36/37/38/48
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More important danger for the man: Contact with eyes can be corrosive. Prolonged and repeated contact with skin may cause and allergic reaction in some individuals. Inhalation may cause irritation to lungs, mucous membranes. Chronic inhalation may cause lung damage. Individuals with respiratory problems should avoid inhalation exposure. Results of tests in rats have shown propargite to be an experimental animal carcinogen.

Dangers for the environment:

Toxic to fish.

Physical-chemical dangers:

Not applicable

4. First Aid Measures

If in eyes: immediately flush eyes with plenty of water. See a physician.

If inhaled: remove person to fresh air. Apply artificial respiration if symptoms indicate. Call a physician.

If on skin: wash thoroughly with soap and water. Get medical attention.

If swallowed: do not induce vomiting. Drink promptly a large quantity of milk, egg whites or gelatin solution. If these are not available, drink large quantities of water. Avoid alcohol. Call a physician or poison center immediately.

5. Fire-Fighting Measures

Extinguishing media

To be used: water spray, dry chemical.

Don't use: not applicable

Particular risk: autoignition temperature at 326°C

Measures of personal protection: Chemical resistant gloves, protective clothing and eye protection should be wore when handling. Lanuder clothing before reuse. In the absence of adequate ventilation, use respiratory protection.

6. Accidental Release Measures

Personal cautions: Avoid all personal contact. Observe good personal hygiene.

Cleaning methods

EX: pick up for sweeping or asplation avoiding the powder formation. Transfer to a properly labolled deposit that will be closed and sealed until the recovery of climination of the product.

Environmental cautions

EX: prevent the contamination of the floor and of beds of water.

7. Handling And Storage

Handling: wearing protective clothing when handling.

Storage: store in a dry location.

Technical protective measures: sufficient ventilation to minimize dust exposure. Protect closed dust handling systems againest possible dust explosions. Avoid dust accumulations on building or equipment surfaces.

Fire and explosion protection: avoid breathing fumes, wear air-supplied breathing apparatus. Prevent run-off.

8. Exposure Controls / Personal Protection

Personal protective equipment

Respiratory protection: approved respirator

Protective gloves: chemical resistant gloves

Eye protection: goggles

Industrial hygiene: use good induetrial hygiene. Wear face shield or goggles, elbow lengh PVC gloves, cotton overalls buttoned to the neck and wrist, washable hat and half face respirator with dust and vapour cartridge. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

9. Physical And Chemical Properties

Melting point: not determined Density: 1.13 Vapor pressure : $0.006mPa(25^{\circ}C)$ Water solubility: 4% in water at 20^{\circ}C Other solubility: soluble Ph value: ≤ 0.3 (acidity as H₂SO₄) Flash point: 28^{\circ}C Ignition temperature: 326^{\circ}C

10. Stability And Reactivity

Conditions to avoid: heat and humidity Products to avoid: strong acids and alkalis pesticides Thermal decomposition: not applicable Hazardous decomposition products: oxides of sulfur under burning conditions. Hazardous reaction: not applicable

11. Toxicological Information

Contact with the skin: skin become red Contact with the eyes: corrosive Inhalation: irritative to lungs and mecous membranes. Ingestion: not applicable Sharp toxicity: not applicable Effects for chronic oxhibition: chronic inhalation may cause lung damage. Sensisation: no sensitive

12. Ecological And Ecotoxicological Information

Effect on birds: slight toxic to bird. Mallard duck: >4640ppm Effects on aquatic organisms: Bluegill sunfish: 96hr LC50 0.168 ppm Rainbow trout: 48hr LC50 0.118 ppm Water flea: 48hr LC50 0.092 ppm Catfish 96 hr. LC50 0.04 ppm Daplhnia magna: 48 hr. LC50 0.09 2 ppm Bobwhite quail: 8 day LC50 3401 ppm

13. Disposal Considerations

Product: pesticide wastes are acutely hazardous. Improper disposal of eccess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance.

14. Transport Information

Not applicable.

15. Regulatory Information

Not applicable.

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.