

**MATERIAL SAFETY DATA SHEET****2,5-DIPHENYLOXAZOLE**

PRODUCT CODE NUMBER(S): 3490-5

**PRODUCT IDENTIFICATION****Chemical Name and Synonyms:** 2,5-Diphenyloxazole, PPO, 2,5-diphenyl oxazole, DPO**Chemical Family:** Heterocyclic compound**Chemical Formula:** C<sub>15</sub>H<sub>11</sub>NO**Product Use:** Laboratory reagent**Manufacturer's Name and Address:**

Caledon Laboratories Ltd.

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Georgetown, Ontario L7G 4R9

**Telephone No:** (905) 877-0101**Fax No:** (905) 877-6666**Emergency Telephone No:** CANUTEC (613) 996-6666**HAZARDOUS INGREDIENTS OF MATERIALS**

Ingredients	%	TLV Units	CAS No.
2,5-diphenyloxazole	99	Not established	92-71-7

**PHYSICAL DATA****Physical State:** Solid**Odour and Appearance:** White, fluffy solid, odourless**Odour Threshold (ppm):** Not applicable**Vapour Pressure (mm Hg):** Not available**Vapour Density (Air = 1):** Not available**Evaporation Rate:** Not available**Boiling Point (degrees C):** 360°C**Melting Point (degrees C):** 72-74°C**pH:** Not available**Specific Gravity:** 1.06**Coefficient of Water/Oil distribution:** Not available**SHIPPING DESCRIPTION****UN:** Not regulated**T.D.G. Class:** Not regulated**Pkg. Group:** Not regulated**REACTIVITY DATA****Chemical Stability:** Stable under normal conditions of use and storage. May decompose if heated.**Incompatibility with other substances:** May react violently or explosively with strong oxidizers.**Reactivity:** Avoid excessive heat, incompatible materials, generation of dust.**Hazardous Decomposition Products:** NO<sub>x</sub>, CO<sub>x</sub>**FIRE AND EXPLOSION DATA****Flammability:** Combustible if strongly heated. As with most organic compounds, fine dust dispersed in air in the

presence of an ignition source is a potential dust explosion hazard.

**Extinguishing Media:** Use extinguisher appropriate to the surrounding fire. Use water spray or fog to disperse vapours, and cool fire-exposed containers. Firefighters must wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes.**Flash Point (Method Used):** 335 deg C**Autoignition Temperature:** Not available**Upper Flammable Limit (% by volume):** Not available**Lower Flammable Limit (% by volume):** Not available**Hazardous Combustion Products:** NO<sub>x</sub>, CO<sub>x</sub>**Sensitivity to Impact:** None identified**Sensitivity to Static discharge:** As with most organic powders, mixtures of dust with air may be sensitive under certain conditions, when ignited by an electrostatic or other high-voltage spark, or other ignition source.**TOXICOLOGICAL PROPERTIES AND HEALTH DATA**

To the best of our knowledge, the physical, chemical, and toxicological properties of this substance have not yet been thoroughly investigated.

**Toxicological Data:****LD<sub>50</sub>:** Not available**LC<sub>50</sub>:** Not available**Effects of Acute Exposure to Product:****Inhaled:** Irritating to upper respiratory tract. May cause coughing, sneezing, shortness of breath. May be harmful.**In contact with skin:** May be irritating to eye tissue, causing redness, itching, and pain.**In contact with eyes:** May be irritating to eye tissue, causing redness, tearing, blurring of vision, and pain.**Ingested:** Probably moderately toxic. May cause nausea, vomiting, abdominal pain, diarrhea. Toxicity may be limited by low water solubility.**Effects of Chronic Exposure to Product:**

Prolonged exposure may cause liver or kidney damage.

**Carcinogenicity:** No information available**Teratogenicity:** No information available**Reproductive Effects:** No information available**Mutagenicity:** No information available**Synergistic Products:** None found**PREVENTIVE MEASURES****Engineering Controls:** Local exhaust ventilation recommended**Respiratory Protection:** Dust/mist mask. Use in chemical fumehood. For conditions where dust may be present, to the maximum use specified by the respirator supplier,

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NIOSH/OSHA approved half- face high-efficiency dust/mist filter respirator, or NIOSH/OSHA approved full face-piece high-efficiency dust/mist filter respirator. Higher or unknown concentrations, or for fire or spill conditions, self-contained breathing apparatus, or full face-piece, positive-pressure supplied-air respirator.

**Eye Protection:** Chemical safety glasses. Do not wear contact lenses when working with chemicals.

**Skin Protection:** Rubber or plastic gloves. Plastic apron, sleeves as appropriate to limit contact.

**Other Personal Protective Equipment:** Safety shower and eye-wash fountain in work area.

**Leak and Spill Procedure:** Ventilate area. If dust is present, eliminate sources of ignition. Wet if necessary to control dust. Cleanup personnel should be trained in the handling of hazardous chemicals and should wear protective equipment and clothing sufficient to prevent inhalation of dust, mist or fumes, and contact with skin and eyes. Prevent from entering sewers or waterways. Collect in a manner that does not raise dust, transfer carefully into container, and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent.

**Waste Disposal:** Follow all federal, provincial and local regulations for disposal.

**Handling Procedures and Equipment:** COMBUSTIBLE DUST. Workers using this chemical must be properly trained in its hazards and its safe use, and must wear appropriate protective equipment and clothing. Avoid generating dust. If there is dust, keep away from heat, sparks, and all sources of ignition; avoid the accumulation of static charge, use anti-sparking tools and ground and bond equipment and containers. Use the smallest amount possible for the purpose, in a designated area with adequate ventilation. Use good housekeeping to prevent accumulations of dust. Avoid contact with skin and eyes. Avoid inhalation. Wash thoroughly after handling.

**Storage Requirements:** Store in suitable, labelled containers, in a cool, dry, well-ventilated area, out of direct sunlight and away from heat and ignition sources and incompatible materials. Keep air out of container. Keep container tightly closed. Protect from damage.

## FIRST AID MEASURES

### Specific Measures:

**Eyes:** Flush eyes thoroughly with gently running water, holding eyelids open while flushing, for five to ten (5-10) minutes, or until no trace of chemical remains. Get medical attention if irritation develops.

**Skin:** Remove contaminated clothing. Brush or wipe off dry material. Flush skin with plenty of running water until no evidence of chemical remains. If irritation develops get medical attention.

**Inhalation:** Remove to fresh air. Give oxygen and get medical attention for any breathing difficulty.

**Ingestion:** If victim is alert and NOT convulsing, rinse mouth, give several glasses of water to drink to dilute. If discomfort occurs, or if a large amount has been ingested, get medical attention.

## REFERENCES USED

CCINFO disc  
Suppliers' Material Safety Data Sheets

## ADDITIONAL INFORMATION

**Date Issued:** November 25, 1991

**Revision:** September 2011

**MSDS:** 3490-5

**Proposed WHMIS Designation:** Not controlled. Not required to be updated every three years (WHMIS 1992, B-40, Section 29,2)

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