

Material Safety Data Sheet (MSDS) for PD98059 (MEK1 Inhibitor)



I. Identification

Product name: PD98059 (MEK1 Inhibitor)

Chemical names:

2-(2-amino-3-methoxyphenyl)-4H-1-Benzopyran-4-one
2-(2'-Amino-3'-methoxy)-flavone
2-(2-amino-3-methoxyphenyl)-chromone

CAS number: 167869-21-8

Empirical formula: C₁₆ H₁₃ NO₃

Molecular weight: 267

Chemical family: Chromones and Flavones

II. Physical Data

Melting point: 166.7–167.3°C

Solubility in water: Insoluble

Solubility in DMSO: 6.5 mg/ml

Appearance: Yellow solid

III. Ingredients

Material: 100% lyophilized yellow powder

IV. Fire and Explosion Hazard Data

Flash point: N/A (solid compound)

Flammable limits in air (% by volume): None

Auto-ignition temperature: N/A

Extinguishing media: Dry chemical, water or carbon dioxide.

Special fire fighting procedures: If involved in fire, don NIOSH/MSHA-approved self-contained breathing apparatus, flame/chemical resistant. Wear protective clothing to prevent contact with skin and eyes.

Unusual fire and explosion hazards: Emits toxic fumes under fire conditions.

V. Health Hazard Data

Chemical listed as carcinogen or potential carcinogen: No

Threshold Limit Value (TLV) and source: Data not available.

OSHA Permissible Exposure Limit: None

ACGIH Threshold Limit Value: None

I.A.R.C. Monographs: No

Acute effects of overexposure: May be harmful if swallowed, inhaled, or absorbed through skin. Can cause severe irritation and neurotoxic effects. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Chronic effects of overexposure: May be harmful. Allergic reactions in certain sensitive individuals may develop.

Emergency and First Aid Procedures

Swallowing—Wash out mouth with water, provided person is conscious. Call a physician. Administer one to two glasses of milk or water to dilute ingested material.

Skin—In case of contact, remove contaminated clothing and immediately wash skin with soap and copious amounts of water for at least 15 minutes.

Inhalation—If inhaled, remove to fresh air. If breathing becomes difficult, give oxygen and obtain medical attention. If not breathing, give artificial respiration and obtain medical attention.

Eyes—In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingers. Obtain medical attention.

VI. Reactivity Data

Stability/Conditions to avoid: Stable, keep away from ignition sources.

Incompatibility/Materials to avoid: Strong oxidizers.

Combustion/Decomposition products: Thermal decomposition may produce carbon monoxide, carbon dioxide and nitrogen oxides.

Hazardous polymerization: Not susceptible to polymerization

VII. Spill or Leak Procedures

Steps to be taken if material is spilled or released: Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Sweep up material. Place in a suitable container then hold for waste disposal. Wash down the spill site and ventilate the area.

Waste disposal method: Dissolve the material in a combustible solvent and burn in an EPA-licensed chemical incinerator equipped with an after-burner and scrubber.

Waste classification: Aromatic amine

Other precautions: Observe all federal, state and local laws.

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VIII. Special Protection Information

Respiratory protection: Avoid inhalation. Use NIOSH/MSHA-approved respirator.

Ventilation: Use mechanical exhaust.

Protective equipment: Wear suitable protective clothing, chemical resistant (latex or rubber) gloves and lab safety glasses.

Other equipment: Safety shower and eye bath.

IX. Special Precautions

Precautions to be taken in handling and storage: This compound is sold only for research use by personnel familiar with the toxicology of organic chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and not rubbing eyes with hands while working in the laboratory.

This compound is sold only in milligram quantities for use in dilute solutions in biological research. No other use is intended, and any other use may involve substantial hazards.

This compound is to be stored as tightly stoppered solutions kept under nitrogen or argon, or kept as supplied in a sealed glass ampule at -20°C .

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide for experienced personnel. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product. The burden of safe use of this material rests entirely with the user.

Revised: July 2001