

# Actinomycin D (Dactinomycin) SDS | MSDS

## 1.PRODUCT AND COMPANY IDENTIFICATION

### Product identifier

- **Product Name:** Actinomycin D (Dactinomycin)
- **Catalog Number:** S8964
- **CAS Number:** 50-76-0
- **IUPAC Name:** Actinomycin D

### Relevant identified uses and uses advised against

- **Identified uses:** For research and development use only; laboratory chemicals; manufacture of substances.
- **Uses advised against:** Not for pharmaceutical, household, or other unapproved uses.

### Details of the supplier

- **Company :** Selleck Chemicals
- **TollFree :** +1 877 796-6397
- **Tel :** +1 832 582-8158
- **Fax :** +1 832 582-8590

### Emergency telephone number

- **Emergency phone #:** +1 832 582-8158

## 2. Hazards identification

### Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

- Acute toxicity, Oral (Category 2), H300
- Carcinogenicity (Category 1B), H350
- Reproductive toxicity (Category 1B), H360

### GHS Label elements, including precautionary statements

#### Pictogram:



- **Signal Word:** Danger
- **Hazard Statements:**
  - H300: Fatal if swallowed.
  - H350: May cause cancer.

- H360: May damage fertility or the unborn child.

• **Precautionary Statements:**

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P264: Wash skin thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P310 + P330: IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
- P308 + P313: IF exposed or concerned: Get medical advice/ attention.
- P405: Store locked up.
- P501: Dispose of contents/ container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC)**

None.

### 3. Composition/information on ingredients

**Substances**

- **Synonyms:** Actinomycin IV, Actinomycin C1, Dactinomycin
- **Formula:** Actinomycin D
- **Molecular weight:** 1,255.42 g/mol
- **CAS-No.:** 50-76-0
- **EC-No.:** 200-063-6

**Component Information**

- **Component:** Actinomycin D
- **Classification:** Acute Tox. 2; Carc. 1B; Repr. 1B; H300, H350, H360
- **Concentration:** <= 100 %

### 4. First aid measures

**Description of first-aid measures**

- **General advice:** Show this safety data sheet to the attending physician.
- **If inhaled:** Move person to fresh air. Call a physician.
- **In case of skin contact:** Immediately remove all contaminated clothing. Rinse skin with water or shower. Consult a physician.
- **In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes, removing contact lenses. Consult an ophthalmologist.
- **If swallowed:** Provide water to drink (maximum of two glasses). Seek immediate medical advice. In exceptional cases where medical care is unavailable within one hour, induce vomiting only if the person is fully conscious, administer activated charcoal (20-40 g in a 10% slurry), and consult a doctor quickly.

### **Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the hazard labelling (Section 2.2) and toxicological information (Section 11).

### **Indication of any immediate medical attention and special treatment needed**

N/A

## **5. Firefighting measures**

### **Extinguishing media**

- **Suitable extinguishing media:** Water, foam, carbon dioxide (CO<sub>2</sub>), or dry powder.
- **Unsuitable extinguishing media:** No limitations of extinguishing agents are given for this substance.

### **Special hazards arising from the substance or mixture**

The product is combustible. Hazardous decomposition products such as carbon oxides and nitrogen oxides (NO<sub>x</sub>) may be developed in the event of a fire.

### **Advice for firefighters**

Firefighters should stay in the danger area only with self-contained breathing apparatus and wear suitable protective clothing to prevent skin contact.

### **Further information**

Use water spray jet to suppress gases, vapors, or mists. Prevent fire extinguishing water from contaminating surface or ground water systems.

## **6. Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

Avoid the generation and inhalation of powder in all circumstances. Ensure adequate ventilation, avoid substance contact, and evacuate the danger area while observing emergency procedures. Refer to Section 8 for personal protection.

### **Environmental precautions**

Do not allow the product to enter drains.

### **Methods and materials for containment and cleaning up**

Cover drains and collect spills. Observe material restrictions (Sections 7 and 10). Take up the material carefully and dispose of it properly. Clean the affected area and avoid the generation of powder.

### **Reference to other sections**

For disposal, see Section 13.

## **7. Handling and storage**

### **Precautions for safe handling**

Work under a hood and do not inhale the substance or mixture. Practice hygiene by immediately changing contaminated clothing and washing hands and face after working with the substance.

#### **Conditions for safe storage, including any incompatibilities**

Keep the container tightly closed in a dry, well-ventilated place. Store locked up or in an area accessible only to authorized persons.

- **Recommended storage temperature:** 2-8 °C
- **Storage class (TRGS 510):** 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials.

#### **Specific end use(s)**

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

## **8. Exposure controls/personal protection**

#### **Control parameters**

Contains no substances with occupational exposure limit values.

#### **Exposure controls**

- **Appropriate engineering controls:** Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the substance.
- **Eye/face protection:** Use safety glasses tested and approved under standards such as NIOSH (US) or EN 166 (EU).
- **Skin protection:** Use nitrile rubber gloves with a minimum layer thickness of 0.11 mm and a breakthrough time of 480 minutes (e.g., KCL 741 Dermatrill-L).
- **Body Protection:** Wear protective clothing.
- **Respiratory protection:** A P3 filter respirator is required when powder is generated. Maintenance and testing must be documented according to producer instructions and standards such as DIN EN 143 or DIN 14387.
- **Control of environmental exposure:** Do not let product enter drains.

## **9. Physical and chemical properties**

#### **Information on basic physical and chemical properties**

- **Appearance:** Form: powder; Color: dark red
- **Odor:** N/A
- **Odor Threshold:** N/A
- **pH:** N/A
- **Melting point/freezing point:** 251-253 °C (484-487 °F)
- **Initial boiling point and boiling range:** N/A
- **Flash point:** N/A
- **Evaporation rate:** N/A
- **Flammability (solid, gas):** N/A
- **Upper/lower flammability or explosive limits:** N/A

- **Vapor pressure:** N/A
- **Vapor density:** N/A
- **Density:** N/A
- **Water solubility:** 40 g/l at 10 °C (50 °F)
- **Partition coefficient: n-octanol/water:** log Pow: -9.100
- **Autoignition temperature:** N/A
- **Decomposition temperature:** > 240 °C (> 464 °F)
- **Viscosity:** N/A
- **Explosive properties:** N/A
- **Oxidizing properties:** None

#### **Other safety information**

N/A.

## **10. Stability and reactivity**

#### **Reactivity**

Flammable organic substances in fine distribution may have a powder explosion potential when whirled up.

#### **Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature).

#### **Possibility of hazardous reactions**

Violent reactions are possible with strong oxidizing agents.

#### **Conditions to avoid**

No information available.

#### **Incompatible materials**

N/A.

#### **Hazardous decomposition products**

In the event of fire, see Section 5.

## **11. Toxicological information**

#### **Information on toxicological effects**

- **Acute toxicity:** LD50 Oral - Rat - 7.2 mg/kg. Remarks: Diarrhea and blood changes. Inhalation and dermal data are not available.
- **Skin corrosion/irritation:** N/A.
- **Serious eye damage/eye irritation:** N/A.
- **Respiratory or skin sensitization:** Prolonged or repeated exposure may cause allergic reactions in sensitive individuals.

- **Germ cell mutagenicity:** DNA damage observed in rat liver tests (intraperitoneal application).
- **Carcinogenicity:** Presumed to have carcinogenic potential for humans. No components are identified as confirmed human carcinogens by IARC, NTP, or OSHA at levels greater than or equal to 0.1%.
- **Reproductive toxicity:** May damage fertility or the unborn child.
- **Specific target organ toxicity (single/repeated exposure):** N/A.
- **Aspiration hazard:** N/A.

#### **Additional Information**

RTECS: AU1575000. Symptoms include anemia, drowsiness, and weakness. Evidence based on human experience indicates potential liver irregularities.

## **12. Ecological information**

#### **Toxicity**

N/A.

#### **Persistence and degradability**

N/A.

#### **Bioaccumulative potential**

N/A.

#### **Mobility in soil**

N/A.

#### **Results of PBT and vPvB assessment**

PBT/vPvB assessment is not available as a chemical safety assessment is not required or has not been conducted.

#### **Endocrine disrupting properties**

N/A.

#### **Other adverse effects**

N/A.

## **13. Disposal considerations**

#### **Waste treatment methods**

Waste material must be disposed of in accordance with national and local regulations. Leave chemicals in their original containers and do not mix with other waste. Handle uncleaned containers in the same manner as the product itself.

## **14. Transport information**

#### DOT (US)

- **UN number:** 3462
- **Class:** 6.1
- **Packing group:** II
- **Proper shipping name:** Toxins, extracted from living sources, powder, n.o.s. (actinomycin D)
- **Poison Inhalation Hazard:** No

#### IMDG

- **UN number:** 3462
- **Class:** 6.1
- **Packing group:** II
- **EMS-No:** F-A, S-A
- **Proper shipping name:** TOXINS, EXTRACTED FROM LIVING SOURCES, POWDER, N.O.S. (actinomycin D)

#### IATA

- **UN number:** 3462
- **Class:** 6.1
- **Packing group:** II
- **Proper shipping name:** Toxins, extracted from living sources, powder, n.o.s. (actinomycin D)

## 15. Regulatory information

#### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304

## 16. OTHER INFORMATION

**Revision Date:** 2026/07/10

**Further Information:** The information provided is believed to be correct but is not exhaustive and should be used only as a guideline based on current knowledge. It does not represent a guarantee of the properties of the product. Selleck Chemicals Corporation and its Affiliates shall not be held liable for any damage resulting from handling or contact with the product.