

## 2,4-Pentanedione-d<sub>8</sub>

### Section 1. Chemical product and company identifications

**Product code:** D-8334  
**Chemical formula:** C<sub>5</sub>D<sub>8</sub>O<sub>2</sub>  
**CAS:** 107508-19-0  
**CAS (unlabelled):** 123-54-6  
**Synonyms:** Acetylacetone, Pentane-2,4-dione

#### Supplier / Manufacturer:

**C/D/N Isotopes Inc.**  
88 Leacock Street  
Pointe-Claire (Québec) H9R 1H1  
Phone: 514-697-6254  
Toll-Free (Canada & USA): 1-800-565-4696  
Fax: 514-697-6148  
Website: www.cdnisotopes.com

#### In case of emergency:

**TOXYSKAN HOTLINE: 1-855-780-0599**


### Section 2. Hazards identifications

#### GHS (Globally Harmonized System of Classification and Labelling of Chemicals):

**GHS Classification:**

- Flammable liquids (Category 3)
- Acute toxicity, Oral (Category 4)
- Acute toxicity, Inhalation (Category 3)
- Acute toxicity, Dermal (Category 3)

**GHS Label elements:**

- Pictograms: 

- Signal word: Danger

**Hazards statement:**

- H226 Flammable liquid and vapor
- H302 Harmful if swallowed
- H311 Toxic in contact with skin
- H331 Toxic if inhaled

**Precautionary statement:**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
- P242 Use non-sparking tools.
- P243 Take action to prevent static discharges.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water

- P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
- P362 + P364 Take off contaminated clothing and wash it before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P403 + P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up
- P501 Dispose of contents/ container to an approved waste disposal plant.

### **Section 3. Composition and information on ingredients**

<b><u>Name</u></b>	<b><u>CAS</u></b>	<b><u>Concentration %</u></b>
2,4-Pentanedione-d <sub>8</sub>	107508-19-0	> 98

### **Section 4. First aid measures**

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin contact:** Wash off with soap and plenty of water. Consult a physician.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Indication of immediate medical attention and special treatment needed, if necessary:** No data available.

**Most important symptoms and effects, both acute and delayed:** Redness, dizziness, drowsiness, headache, nausea, vomiting,

### **Section 5. Firefighting measures**

**Flammability of the product:** Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

**Products of combustion:** Hazardous decomposition products formed under fire conditions: Carbon oxides.

**Firefighting media and instructions:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

### **Section 6. Accidental release measures**

**Personal precautions:** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition.

**Environmental precautions:** Do not let product enter drains. Discharge into the environment must be avoided.

**Methods for cleaning up:** Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

### **Section 7. Handling and storage**

**Handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Provide appropriate exhaust ventilation. Keep away from sources of ignition - No smoking.

**Storage:** Store at room temperature. Adequate ventilation.

### **Section 8. Exposure Controls, Personal Protections**

**Engineering controls:** Use mechanical exhaust or laboratory fumehood to avoid exposure.

**Eyes:** Safety glasses with side-shields conforming to NIOSH (US) or EN 166 (EU).

**Respiratory:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hands:** Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Skin/body:** Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## **Section 9. Physical and chemical properties (unlabelled)**

**Molecular weight:** 100.12 g/mol  
**Physical status:** Liquid  
**Color:** Colorless  
**Odour:** Ester-like  
**Density:** 0.98 g/cm<sup>3</sup>  
**Melting point:** -23 °C (-9 °F)  
**Boiling point:** 138 °C (280 °F)  
**Vapour pressure:** 8.5 hPa (6.4 mmHg) at 20 °C (68 °F)  
**Vapour density:** 3.5 (Air = 1)  
**Partition coefficient (octanol/water):** No data available.  
**Water solubility:** 122 g/L  
**Lower explosion limit:** 2.4 %.  
**Upper explosion limit:** 11.6 %.  
**Auto-ignition temperature:** 340 °C (644 °F)  
**Flash point:** 34 °C (93 °F)

## **Section 10. Stability and reactivity**

**Stability and reactivity:** Stable under recommended storage conditions.  
**Incompatibility:** Oxidizing agents, Bases, Reducing agents.  
**Products of combustion:** Hazardous decomposition products formed under fire conditions: Carbon oxides.  
**Reactivity conditions:** Heat, Spark, Open flame, Static discharge.

## **Section 11. Toxicological information (unlabelled)**

**Toxicological data:** 2,4-Pentanedione

### **Information on ingredients:**

<b><u>Name</u></b>	<b><u>CAS</u></b>	<b><u>LD<sub>50</sub></u></b>	<b><u>LC<sub>50</sub></u></b>
2,4-Pentanedione	123-54-6	Oral - Rat – 55 mg/kg Dermal - Rabbit – 790 mg/kg Oral – Mouse- 951 mg/kg	No data available

### **Potential acute effects**

- **Eyes:** No data available
- **Skin:** Toxic in contact with skin.
- **Inhalation:** Toxic if inhaled.
- **Ingestion:** Harmful if swallowed.

### **Potential chronic effects**

- **Carcinogenic effects:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **Mutagenic effects:** No data available.
- **Teratogenic effects:** No data available
- **Medical conditions aggravated by overexposure:** No data available.

## **Section 12. Ecological information**

**Ecological data:** No data available

<b><u>Name</u></b>	<b><u>Results</u></b>	<b><u>Species</u></b>	<b><u>Period</u></b>
2,4-Pentanedione	104 mg/L LC50 25.9 mg/L EC50	Pimephales promelas Daphnia magna	96 h 48 h

**Effects on environment:** No data available.  
**Mobility:** No data available.  
**Environmental precautions:** No data available.  
**Persistence and degradability:** No data available.  
**Bioaccumulative potential:** No data available.

## **Section 13. Disposal considerations**

**Waste disposal:** Contact a licensed professional waste disposal service to dispose of this material.

## **Section 14. Transportation information**

### **Classification DOT/IMDG/IATA label:**

**Shipping name:** Pentane-2,4-dione

**UN number:** UN2310

**Class:** 3 (6.1)

**Packaging group:** III

**Additional information:** None

## **Section 15. Regulatory information**

### **UNITED STATES: NFPA classification**



Health: 2  
Flammable: 3  
Reactivity: 0  
Special conditions: None

**Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous**

### **U.S. Federal regulations:**

**California proposition 65 requirements :** Not listed

**SARA section 313 (specific toxic chemical listings) :** Not listed

**CERCLA reportable quantity :** Not listed

**Sections 302-304 reportable quantity :** Not listed

**Community Right-to-Know (Sections 311 and 312) :** Not Listed

## **Section 16. Additional information**

**Date of issue:** December 1, 2023

**Version:** 1

**Elaborated by:** Toxyscan Inc., 1-866-780-0599

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*This safety data sheet has been prepared in accordance with the OSHA (USA), WHMIS (Canada) / GHS classification rules in effect at the time of writing.*