

Cayman Chemical Company
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108



1. Identification of the Substance/Mixture and of the Company/Undertaking

Product Code: 10012597

Product Name: Allopurinol

Synonyms: 1,5-dihydro-4H-pyrazolo[3,4-d]pyrimidin-4-one;

Intended Use: For research use only, not for human or veterinary use.

Manufacturer Information

Company Name: Cayman Chemical Company

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

Alternate Emergency Contact: CHEMTREC Outside USA and Canada: +1 (703)527-3887

Information: Cayman Chemical Company +1 (734)971-3335

Web site address: www.caymanchem.com

2. Hazards Identification

GHS Classification	Placard	Key word	GHS Hazard
Acute Toxicity: Oral, Category 3	Skull and crossbones	Danger	Toxic if swallowed
Skin Sensitization, Category 1	Exclamation point	Warning	May cause an allergic skin reaction

GHS Hazard Phrases: H301: Toxic if swallowed.
H317: May cause an allergic skin reaction

GHS Precaution Phrases: P264: Wash hands thoroughly after handling.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority.
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P281: Use personal protective equipment as required.

GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P330: Rinse mouth.
P302+352: IF ON SKIN: Wash with plenty of soap and water.
P333+313: If skin irritation or rash occurs, seek medical advice/attention.
P363: Wash contaminated clothing before reuse.
P308+313: IF exposed or concerned: Get medical attention/advice.

GHS Storage and Disposal Phrases: Please refer to Section 7 for Storage and Section 13 for Disposal information.

Route(s) of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection

Potential Health Effects (Acute and Chronic): Material may be irritating to the mucous membranes and upper respiratory tract.
May be harmful by inhalation or skin absorption.
May cause eye, skin, or respiratory system irritation.
May cause sensitization by skin contact.
Toxic if swallowed.

Target Organs: Blood, Kidneys, Liver, Skin.

Signs and Symptoms Of Exposure:	To the best of our knowledge, the toxicological properties have not been thoroughly investigated.
Medical Conditions Generally Aggravated By Exposure:	No data available.

3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. Allopurinol	315-30-0	100.0 %	206-250-9	R25-43	UR0785000

4. First Aid Measures

Emergency and First Aid Procedures:

In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.
In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

5. Fire Fighting Measures

Suitable Extinguishing Media:	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
Unsuitable Extinguishing Media:	A solid water stream may be inefficient.
Flammable Properties and Hazards:	No data available.
Hazardous Combustion Products:	No data available.
Flash Pt:	No data.
Autoignition Pt:	No data available.
Explosive Limits:	LEL: No data. UEL: No data.
Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures:	Avoid raising and breathing dust, and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
Environmental Precautions:	Take steps to avoid release into the environment, if safe to do so.
Steps To Be Taken In Case Material Is Released Or Spilled:	Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

7. Handling and Storage

Precautions To Be Taken in Handling:	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
Precautions To Be Taken in Storing:	Keep container tightly closed. Store in accordance with information listed on the product insert.
Hazard Label Information:	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. Allopurinol	315-30-0	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	
1. Allopurinol	315-30-0	No data.	No data.	

Protective Equipment Summary - Hazard Label Information: Compatible chemical-resistant gloves Eye wash station in work area Lab coat Safety glasses Safety shower in work area Vent Hood

Engineering Controls (Ventilation etc.): Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Eye Protection: Safety glasses

Protective Gloves: Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

Respiratory Equipment (Specify Type): NIOSH approved respirator, as conditions warrant.

Work/Hygienic/Maintenance Practices: Do not take internally.
Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.
Wash thoroughly after handling.

9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical States:	☐ Gas ☐ Liquid ☒ Solid
Appearance and Odor:	A crystalline solid
Boiling Point:	No data.
Melting Point:	No data.
Autoignition Pt:	No data.
Flash Pt:	No data.
Specific Gravity (Water = 1):	No data.
Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	No data.
Evaporation Rate:	No data.
Solubility in Water:	No data.
Solubility Notes:	~0.1 mg/ml in 1:10 DMSO:PBS (pH 7.2); ~3 mg/ml in DMSO;
Other Information	
Percent Volatile:	No data.
Formula:	C ₅ H ₄ N ₄ O
Molecular Weight:	136.10

10. Stability and Reactivity

Stability:	Unstable ☐ Stable ☒
Stability Note(s):	Stable if stored in accordance with information listed on the product insert.
Conditions To Avoid:	No data available.
Polymerization:	Will occur ☐ Will not occur ☒
Incompatibility - Materials To Avoid:	oxidizing agents
Hazardous Decomposition Or Byproducts:	carbon dioxide carbon monoxide nitrogen oxides

11. Toxicological Information

Toxicological Information:	The toxicological effects of this product have not been thoroughly studied.
	Allopurinol - Toxicity Data: Oral TDLO (rat): 10 mg/kg; Oral LD50 (mouse): 78 mg/kg; Oral TDLO (mouse): 100 mg/kg;
Chronic Toxicological Effects:	Allopurinol - Investigated as a tumorigen, mutagen, and reproductive effector. Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information. Allopurinol RTECS Number: UR0785000

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Allopurinol	315-30-0	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

General Ecological Information:	Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
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13. Disposal Considerations

Waste Disposal Method:	Dispose in accordance with local, state, and federal regulations.
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14. Transport Information

Globally Harmonized System of Classification and Labelling	
Acute Toxicity: Oral, Category 3 - Danger! Toxic if swallowed	
Skin Sensitization, Category 1 - Warning! May cause an allergic skin reaction	
LAND TRANSPORT (US DOT)	
DOT Proper Shipping Name	Toxic Solid, Organic, N.O.S. (Allopurinol)
DOT Hazard Class:	6.1
DOT Hazard Label:	POISON
UN/NA Number:	2811
Packing Group:	III
LAND TRANSPORT (European ADR/RID)	
ADR/RID Shipping Name	Toxic Solid, Organic, N.O.S. (Allopurinol)
UN Number:	2811
Hazard Class:	6.1 - POISON
Packing Group:	III
AIR TRANSPORT (ICAO/IATA)	
ICAO/IATA Shipping Name	Toxic Solid, Organic, N.O.S. (Allopurinol)
UN Number:	2811
Hazard Class:	6.1 - POISON
Packing Group:	III
IATA Classification:	6.1
Additional Transport Information:	Transport in accordance with local, state, and federal regulations.

15. Regulatory Information

European Community Hazard Symbol codes	T: Toxic
European Community Risk and Safety Phrases	
R25	- Toxic if swallowed.



SAFETY DATA SHEET

Allopurinol

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Revision: 04/19/2012

- R43 - May cause sensitization by skin contact.
S22 - Do not breathe dust.
S24/25 - Avoid contact with skin and eyes.
S28 - After contact with skin, wash immediately with plenty of soap-suds.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Allopurinol	315-30-0	No	No	No	No

Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Allopurinol	315-30-0	No	No	Inventory	No

Regulatory Information Statement:

This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

16. Other Information

Company Policy or Disclaimer

For research use only, not for human or veterinary use.

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required