

SAFETY DATA SHEET

Preparation Date: 8/29/2016

Revision Date: 8/29/2016

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: A1577
Product Name: ALLOPURINOL, USP

Other means of identification

Synonyms: 1,5-Dihydro-4H-pyrazolo(3,4-d)pyrimidin-4-one
 4'-Hydroxypyrazolo(3,4-d)pyrimidine
 4-Hydroxypyrazolopyrimidine
 4-Hydroxy-3,4-pyrazolopyrimidine
 4-Hydroxypyrazolo(3,4-d)pyrimidine
 4-Hydroxy-1H-pyrazolo(3,4-d)pyrimidine
 4-Hydroxypyrazolyl(3,4-d)pyrimidine
 4H-Pyrazolo(3,4-d)pyrimidin-4-one
 H-Pyrazolo(3,4-d)pyrimidin-4-ol

CAS #: 315-30-0
RTECS # UR0785000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Medication.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000.

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 3
Skin sensitization	Category 1

Label elements

Danger

Hazard statements
 Toxic if swallowed

May cause an allergic skin reaction



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response

IF ON SKIN: Wash with plenty of water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Allopurinol	315-30-0	100

4. FIRST AID MEASURES

First aid measures

General Advice:

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Toxic if swallowed.

Most important symptoms and effects, both acute and delayed

Symptoms May cause eye/skin/respiratory tract irritation. May cause an allergic skin reaction. May cause abdominal pain, nausea, vomiting, diarrhea. May cause dyspepsia. May cause gastritis. May cause muscle weakness. May cause central nervous system effects. Ataxia. Somnolence. May affect the liver. Jaundice. Hepatitis. It may affect the kidneys. It may affect the blood. It may affect the peripheral nervous system. Peripheral neuropathy. Paresthesia (numbness and tingling of the extremities). May cause muscle and joint pain. May affect eyes/vision. May affect the cardiovascular system. May cause an allergic skin reaction. May cause allergic or hypersensitivity reactions if ingested. Skin rash. Fever. Dizziness. Headache.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical. Carbon dioxide (CO₂). Water spray mist or foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon Dioxide, Carbon Monoxide. Nitrogen Oxides.

Specific hazards: May be combustible at high temperatures

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible Materials:

Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WHEEL
Allopurinol	315-30-0	None	None	None	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Allopurinol	315-30-0	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Allopurinol	315-30-0	None	None

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles or Safety glasses with side-shields
- Skin and body protection:** Gloves. Long sleeved clothing. Chemical resistant apron.
- Respiratory protection:** Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid	Appearance: Powder.	Color: White to Off-White.
Odor: No information available.	Taste Tasteless.	Formula: C ₅ H ₄ N ₄ O
Molecular/Formula weight: 136.11 g/mole	Flammability: No information available	Flashpoint (°C/°F): No information available.
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): 350 (°C)/662 (°F)	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): No information available	Bulk density: No information available	Density (g/cm³): No information available
Specific gravity: No information available	pH: No information available	Vapor pressure @ 20°C (kPa): No information available
Evaporation rate: No information available	Vapor density: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): Log Kow = -0.55	Viscosity: No information available
Miscibility: No information available	Solubility: Very slightly soluble in water Very slightly soluble in chloroform Very slightly soluble in Ethanol Slightly soluble in Dimethyl sulfoxide	

Product code: A1577

Product name: ALLOPURINOL, USP

(DMSO)
Solubility in water: 0.48 mg/ml @25 deg. C; Solubility in n-octanol: <0.01mg/ml @ 25 deg.C; Solubility in chloroform: 0.60 mg/ml @ 25 deg. C; Solubility i ethanol: 0.30 mg/ml @ 25 deg. C; Solubility in dimethyl sulfoxide: 4.6 mg/ml @ 25 deg. C

10. STABILITY AND REACTIVITY

Reactivity

May react with strong oxidizers

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Excess Heat. Exposure to light. Avoid dust formation. Incompatible materials.

Incompatible Materials: Strong oxidizing agents

Hazardous decomposition products: Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx). Hydrogen chloride gas.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Ingestion. Inhalation.

Acute Toxicity

Component Information

Allopurinol
CAS-No. 315-30-0

LD50/oral/rat = No information available
LD50/oral/mouse = 78 mg/kg Oral LD50 Mouse
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = 78 mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact:	May cause skin irritation.
Eye Contact:	May cause eye irritation.
Inhalation	May cause irritation of respiratory tract.
Ingestion	Toxic if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea. May cause dyspepsia. May cause gastritis. May affect behavior/central nervous system (ataxia, somnolence, muscle weakness).
Aspiration hazard	No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated ingestion will have effects similar to that of acute ingestion. It may cause also cause hypersensitivity and allergic skin reaction (maculopapular rash with desquamation) and exfoliative, urticarial, erythematous, hemorrhagic and purpuric types of dermatitis. Hypersensitivity reactions are a second, more rare adverse effect, and may occur with fever, chills, arthralgia, nausea and vomiting. The so-called "allopurinol hypersensitivity syndrome, which may prove fatal, may also include fever, chills, toxic epidermal necrolysis, dermal (allergic)vasculitis, hypersensitivity angiitis, severe hepatic and renal dysfunction, gastrointestinal bleeding and possibly pulmonary vasculitis. It may also affect the liver and kidneys. Alterations in liver function test results, jaundice, reversible hepatomegaly, hepatitis, hepatocellular damage (including necrosis), granulomatous changes in the liver, arterial nephrosclerosis, oliguria, nephritis, albuminuria, primary hematuria may occur. Hepatotoxicity and reduced renal function or renal failure may occur as part of a hypersensitivity reaction. Hematopoietic effects have also been reported, including leukocytosis, leukopenia, eosinophilia, thrombocytopenia and fatal bone marrow suppression and granulocytopenia; however, these effects may be the result of concomitant use of other, myelosuppressive drugs. Rarely, mild reticulocytosis, lymphocytosis, agranulocytosis, pancytopenia, anemia, hemolytic anemia, aplastic anemia, pure red cell aplasia, decreased prothrombin levels and eosinophilic fibrohistiocytic bone marrow lesions have occurred. Other effects may include peripheral neuropathy with weakness and malaise, neuritis, paresthesia, headache and somnolence, Optic neuritis, dizziness, vertigo, depression, confusion, amnesia, insomnia, asthenia, and foot drop, pruritus, onycholysis, lichen planus, nasal furnuculoses,

ichthyosis, Stevens-Johnson syndrome, alopecia, ecchymosis, myopathy, epistaxis, loss or alteration of taste, facial/skin edema, sweating, pericarditis, peripheral vascular disease, thrombophlebitis, bradycardia, vasodilation, hypercalcemia, hyperlipidemia, gynecomastia, lymphadenopathy, myalgia, bronchospasm, pharyngitis, rhinitis, asthma, macular retinitis, iritis, conjunctivitis, amblyopia, tinnitus, and decreased libido, development of cataracts, congestive heart failure, acute deafness, anorexia, GI bleeding, hemorrhagic pancreatitis, stomatitis, salivary gland swelling and tongue edema.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Allopurinol	315-30-0	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Product code: A1577

Product name: ALLOPURINOL, USP

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Allopurinol	315-30-0	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN2811
Proper Shipping Name: Toxic solids, organic, n.o.s. (allopurinol)
Hazard Class: 6.1
Subsidiary Class: No information available
Packing group: III
Emergency Response Guide Number: 154
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: IB8, IP3, T1, TP33
Symbol(s): No information available
Description: UN2811, Toxic solids, organic, n.o.s., 6.1, III

TDG (Canada)

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant: No Information available
Description: UN2811, Toxic solid, organic, n.o.s., 6.1, III

ADR

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Packing Group: III
Subsidiary Risk: No information available
Special Provisions: 274, 614
Description: UN2811, Toxic solid, organic, n.o.s., 6.1, III

IMO / IMDG

UN-No: UN2811
Proper Shipping Name: Toxic solids, organic, n.o.s. (allopurinol)
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant: No information available
EMS: F-A
Special Provisions: 223, 274
Description: UN2811, Toxic solid, organic, n.o.s. (ALLOPURINOL), 6.1, III

RID

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available

Packing Group: III
Special Provisions 274, 614
Description: UN2811, Toxic solid, organic, n.o.s., 6.1, III

ICAO

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Description: UN2811, Toxic solid, organic, n.o.s., 6.1, III
Special Provisions A3, A5

IATA

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
ERG Code: 6L
Special Provisions No information available
Description: UN2811, Toxic solid, organic, n.o.s., 6.1, III

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Allopurinol</i>	315-30-0	Present	Present KE-29924	Present	Present (9)-142	Not present	Present	Present 206-250-9

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Allopurinol</i>	315-30-0	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>Allopurinol</i>	315-30-0	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Allopurinol</i>	315-30-0		

Allopurinol	315-30-0	Not Applicable	Not Applicable
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Canada

WHMIS hazard class:

D1B Toxic materials

D2B Toxic materials

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Allopurinol	315-30-0	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Allopurinol	315-30-0	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Allopurinol	315-30-0	Not listed

EU Classification

R-phrase(s)

R25 - Toxic if swallowed.

R43 - May cause sensitization by skin contact.

S -phrase(s)

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S37 - Wear suitable gloves.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Allopurinol	315-30-0		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

T - Toxic

Xn - Harmful.

T



Xn



16. OTHER INFORMATION

Preparation Date: 8/29/2016
Revision Date: 8/29/2016
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this

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End of Safety Data Sheet