



Health	2
Fire	1
Reactivity	0
Personal Protection	E

# Material Safety Data Sheet

## Allopurinol MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Allopurinol

**Catalog Codes:** SLA3220

**CAS#:** 315-30-0

**RTECS:** UR0785000

**TSCA:** TSCA 8(b) inventory: Allopurinol

**CI#:** Not available.

**Synonym:** Adenock, Allozym, Allural, Aluline, Anoprolin, Anzief, Bleminol, Bloxanth, Caplenal, Cellidrin, Dabrosin, Embarin, Epidropal, Foligan, Gichtex, Ketanrift, Lopurin, Lysuron, Milurit, Miniplanor, Nektrohan, Remid, Riball, Suspendol, Takanarumin, Urifemil, Uriprim, Urobenyl, Urosin, Zyloprim, Zyloric; 1,5-Dihydro-4H-pyrazolo(3,4-d)pyrimidin-4-one; 4'-Hydroxypyrazolo(3,4-d)pyrimidine; 4-Hydroxy-1H-pyrazolo(3,4-d)pyrimidine; 4-Hydroxy-3,4-pyrazolopyrimidine; 4-Hydroxypyrazolo(3,4-d)pyrimidine; 4-Hydroxypyrazolopyrimidine; 4-Hydroxypyrazolyl(3,4-d)pyrimidine; 4H-Pyrazolo(3,4-d)pyrimidin-4-one

**Chemical Name:** H-Pyrazolo(3,4-d)pyrimidin-4-ol

**Chemical Formula:** C5-H4-N4-O

**Contact Information:**

**Sciencelab.com, Inc.**

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: [ScienceLab.com](http://ScienceLab.com)

**CHEMTREC (24HR Emergency Telephone), call:**

1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	% by Weight
Allopurinol	315-30-0	100

**Toxicological Data on Ingredients:** Allopurinol: ORAL (LD50): Acute: 78 mg/kg [Mouse].

### Section 3: Hazards Identification

**Potential Acute Health Effects:**

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Severe over-exposure can result in death.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to blood, kidneys, the nervous system, liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

#### Section 4: First Aid Measures

**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

**Serious Skin Contact:** Not available.

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available.

**Ingestion:**

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Serious Ingestion:** Not available.

#### Section 5: Fire and Explosion Data

**Flammability of the Product:** May be combustible at high temperature.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

**Fire Hazards in Presence of Various Substances:**

Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

**Explosion Hazards in Presence of Various Substances:**

Slightly explosive in presence of open flames and sparks. Non-explosive in presence of shocks.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

#### Section 6: Accidental Release Measures

**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**

Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

## Section 7: Handling and Storage

### Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

## Section 8: Exposure Controls/Personal Protection

### Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid. (Powdered solid.)

**Odor:** Slight.

**Taste:** Tasteless.

**Molecular Weight:** 136.11 g/mole

**Color:** White. Off-white.

**pH (1% soln/water):** Not available.

**Boiling Point:** Not available.

**Melting Point:** >350°C (662°F)

**Critical Temperature:** Not available.

**Specific Gravity:** Not available.

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** Not available.

### Solubility:

Very slightly soluble in cold water. Insoluble in diethyl ether. Very slightly soluble in alcohol. Soluble in solutions of fixed alkali hydroxides. Practically insoluble in chloroform. 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

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Excess heat, dust generation, incompatible materials

**Incompatibility with various substances:** Reactive with oxidizing agents.

**Corrosivity:** Not available.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 78 mg/kg [Mouse].

**Chronic Effects on Humans:** May cause damage to the following organs: blood, kidneys, the nervous system, liver.

**Other Toxic Effects on Humans:**

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

**Special Remarks on Toxicity to Animals:**

Lethal Dose/Conc: LD [Rat] - Route: Oral; Dose: >500 mg/kg

**Special Remarks on Chronic Effects on Humans:** May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: Maybe harmful if swallowed. May cause nausea, vomiting, diarrhea, intermittent abdominal pain, gastritis, dyspepsia. It may affect behavior/central nervous system/nervous system (weakness, ataxia, somnolence) Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion will have effects similar to that of acute ingestion. It may cause 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, reversible hepatomegaly, hepatitis, hepatocellular damage (including necrosis), granulomatous changes in the liver, arterial

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

### Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

### Section 15: Other Regulatory Information

**Federal and State Regulations:** TSCA 8(b) inventory: Allopurinol

**Other Regulations:**

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications:**

**WHMIS (Canada):**

CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).

**DSCL (EEC):**

R20/21/22- Harmful by inhalation, in contact with skin and if swallowed. R43- May cause sensitization by skin contact. S24/25- Avoid contact with skin and eyes. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

**HMIS (U.S.A.):**

**Health Hazard:** 2

**Fire Hazard:** 1

**Reactivity:** 0

**Personal Protection:** E

**National Fire Protection Association (U.S.A.):**

**Health:** 2

**Flammability:** 1

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

### Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

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