

Colchicine SDS/MSDS (Safety Data Sheet)

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

- * Product Name: Colchicine
- * Catalog Number: S2284
- * CAS Number: 64-86-8
- * IUPAC Name: Acetamide, N-[(7S)-5,6,7,9-tetrahydro-1,2,3,10-tetramethoxy-9-oxobenzo[a]heptalen-7-yl]-

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

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

- Acute toxicity (oral): Category 1. H300
- Acute toxicity (dermal): Category 1. H310
- Serious eye damage: Category 1. H318
- Acute toxicity (inhalation): Category 1. H330
- Germ cell mutagenicity: Category 1. H340

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram(s)



Signal Word

Danger

Hazard statement(s)

- H300: Fatal if swallowed
- H310: Fatal in contact with skin
- H318: Causes serious eye damage
- H330: Fatal if inhaled
- H340: May cause genetic defects

Precautionary statement(s)

None.

Prevention	<p>P203: Obtain, read and follow all safety instructions before use.</p> <p>P260: Do not breathe dust/fume/gas/mist/vapors/spray.</p> <p>P262: Do not get in eyes, on skin, or on clothing.</p> <p>P264: Wash hands thoroughly after handling.</p> <p>P264+P265: Wash hands thoroughly after handling. Do not touch eyes.</p> <p>P270: Do not eat, drink or smoke when using this product.</p> <p>P271: Use only outdoors or in a well-ventilated area.</p> <p>P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.</p> <p>P284: [In case of inadequate ventilation] Wear respiratory protection.</p>
Response	<p>P301+P316: IF SWALLOWED: Get emergency medical help immediately.</p> <p>P302+P352: IF ON SKIN: wash with plenty of water.</p> <p>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P354: IF IN EYES: Immediately rinse with water for several minutes.</p> <p>P316: Get emergency medical help immediately.</p> <p>P317: Get emergency medical help.</p> <p>P318: if exposed or concerned, get medical advice.</p> <p>P320: Specific treatment is urgent.</p> <p>P321: Specific treatment (see information on this label and safety datasheet)).</p> <p>P330: Rinse mouth.</p> <p>P338: Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P361+P364: Take off immediately all contaminated clothing and wash it before reuse.</p>
Storage	<p>P403+P233: Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405: Store locked up.</p>
Disposal	<p>P501: P501 Dispose of contents/ container to an approved waste disposal plant.</p>

2.3 Other hazards

None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Product name: Colchicine

CAS Number: 64-86-8

PubChem CID: 6167

Molecular formula: C₂₂H₂₅NO₆

Molecular weight: 399.4 g/mol

IUPAC name: N-[(7S)-1,2,3,10-tetramethoxy-9-oxo-6,7-dihydro-5H-benzo[a]heptalen-7-yl]acetamide

3.2 Mixtures

Not applicable (pure substance).

4. FIRST-AID MEASURES

4.1 Description of first aid measures

Inhalation: Move to fresh air. Keep at rest in a position comfortable for breathing. Seek medical attention if symptoms persist.

Skin contact: Wash with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation develops.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting unless directed by medical personnel. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 (Toxicological Information).

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact a poison control center or physician for severe exposure.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable: Water spray, dry chemical, carbon dioxide (CO₂), alcohol-resistant foam.

Unsuitable: None known.

5.2 Specific hazards arising from the substance or mixture

For drugs, solid, n.o.s., avoid breathing dusts and fumes from burning material. Keep upwind. Wear boots, protective gloves, and goggles.

Slight fire potential. Material is a drug, with the following procedures for fires. Extinguish fire using agent suitable for type of surrounding fire. Use water in flooding quantities as fog. Use alcohol foam, carbon dioxide or dry chemical. (EPA, 1998)

- Colchicine is non-combustible.
- The agent itself does not burn, but it may decompose upon heating to produce corrosive and/or toxic fumes.
- Fire may produce irritating, corrosive, and/or toxic gases.
- For small fires, use dry chemical, carbon dioxide, or water spray.
- For large fires, use water spray, fog, or regular foam. Move containers from the fire area if it is possible to do so without risk to personnel. Dike fire control water for later disposal; do not scatter the material. Use water spray or fog; do not use straight streams.
- For fire involving tanks or car/trailer loads, fight the fire from maximum distance or use unmanned hose holders or monitor nozzles. Do not get water inside containers. Cool containers with flooding quantities of water until well after the fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tanks. Always stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from the area and let the fire burn.
- Run-off from fire control or dilution water may be corrosive and/or toxic, and it may cause pollution.
- If the situation allows, control and properly dispose of run-off (effluent).

If a tank, rail car, or tank truck is involved in a fire, isolate it for 0.5 miles (800 m) in all directions; also consider initial evacuation for 0.5 miles (800 m) in all directions.

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Run-off from fire control or dilution water may be corrosive and/or toxic, and it may cause pollution. If the situation allows, control and properly dispose of run-off (effluent).

For more Fire Fighting Procedures (Complete) data for COLCHICINE (6 total), please visit the HSDB record page. The agent /colchicine/ itself does not burn, but it may decompose upon heating to produce corrosive and/or toxic fumes.

5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective clothing.

Fight fire from upwind. Cool containers with water spray until fire is extinguished.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment (see Section 8).

Avoid breathing dust/vapor. Ensure adequate ventilation.

Evacuate personnel to safe areas. Keep people away from and upwind of spill.

WARNING: Highly toxic — only trained personnel should handle spills.

6.2 Environmental precautions

Prevent product from entering drains, waterways, or soil.

Contain spill with inert absorbent material.

6.3 Methods and materials for containment and cleaning up

Excerpt from ERG Guide 151 [Substances - Toxic (Non-Combustible)]:

IMMEDIATE PRECAUTIONARY MEASURE: Isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.

SPILL: Increase the immediate precautionary measure distance, in the downwind direction, as necessary.

FIRE: If tank, rail tank car or highway tank is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. (ERG, 2024)

Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labelled container for disposal. Wash spill site.

Do not touch or walk through the spilled agent if at all possible. However, if you must, personnel should wear the appropriate personal protective equipment (PPE) during environmental decontamination. ... Keep combustibles (e.g., wood, paper, and oil) away from the spilled agent. Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact the spilled agent. Do not direct water at the spill or the source of the leak. Stop the leak if it is possible to do so without risk to personnel, and turn leaking containers so that gas rather than liquid escapes. Prevent entry into waterways, sewers, basements, or confined areas. Isolate the area until gas has dispersed. Ventilate the area.

SRP: Expired or waste pharmaceuticals shall carefully take into consideration applicable DEA, EPA, and FDA regulations. It is not appropriate to dispose by flushing the pharmaceutical down the toilet or discarding to trash. If possible return the pharmaceutical to the manufacturer for proper disposal being careful to properly label and securely package the material. Alternatively, the waste pharmaceutical shall be labeled, securely packaged and transported by a state licensed medical waste contractor to dispose by burial in a licensed hazardous or toxic waste landfill or incinerator.

SRP: At the time of review, regulatory criteria for small quantity disposal are subject to significant revision, however, household quantities of waste pharmaceuticals may be managed as follows: Mix with wet cat litter or coffee grounds, double bag in plastic, discard in trash.

SRP: The scientific literature for the use of contact lenses by industrial workers is inconsistent. The benefits or detrimental effects of wearing contact lenses depend not only upon the substance, but also on factors including the form of the substance, characteristics and duration of the exposure, the uses of other eye protection equipment, and the hygiene of the lenses. However, there may be individual substances whose irritating or corrosive properties are such that the wearing of contact lenses would be harmful to the eye. In those specific cases, contact lenses should not be worn. In any event, the usual eye protection equipment should be worn even when contact lenses are in place.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Precautions for drugs, solid, n.o.s., include the following. Avoid breathing dusts, and fumes from burning materials. Keep upwind. Avoid bodily contact with the material. Wear full protective clothing. Wash away any material which may have contacted the body with copious amounts of water or soap and water. (EPA, 1998)

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Keep container tightly closed.

Store away from incompatible materials (see Section 10).

Protect from light and moisture.

Recommended storage (industry convention for research compounds): -20°C for long-term storage; 2-8°C for short-term use and transport.

[Note: This is a general industry recommendation. Always verify exact storage conditions with the supplier Certificate of Analysis (COA).]

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure controls

8.1.1 Occupational exposure limits (OEL)

OSHA PEL: Not established.

ACGIH TLV: Not established.

NIOSH REL: Not established.

No occupational exposure limit values are established for this substance.

Use the lowest feasible exposure level (ALARA principle).

8.1.2 Appropriate engineering controls

Use only in a chemical fume hood or with local exhaust ventilation.

Ensure adequate ventilation to keep airborne concentrations below exposure limits.

8.2 Individual protection measures

8.2.1 Eye/face protection

Wear chemical safety goggles and face shield.

8.2.2 Skin protection

Wear protective gloves. Recommended material: Nitrile rubber.

Wear suitable protective clothing (lab coat).

8.2.3 Respiratory protection

Wear NIOSH-approved respirator with appropriate cartridges. SCBA for high concentrations.

8.2.4 Thermal hazards

Not applicable.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance: Colchicine appears as odorless or nearly odorless pale yellow needles or powder that darkens on exposure to light. Used to treat gouty arthritis, pseudogout, sarcoidal arthritis and calcific tendinitis. (EPA, 1998)
- b) Odor: Odorless or nearly so
- c) Odor threshold: No data available
- d) pH: pH of 0.5% solution: 5.9
- e) Melting point/freezing point: 288 to 302 °F (EPA, 1998)
- f) Initial boiling point and boiling range: 407 °C @760 [mm Hg]
- g) Flash point: No data available
- h) Evaporation rate: No data available
- i) Flammability (solid, gas): No data available
- j) Upper/lower flammability or explosive limits: No data available
- k) Vapor pressure: 0.00001 [mm Hg] @25 °C
- l) Vapor density: No data available
- m) Relative density: No data available
- n) Water solubility: greater than or equal to 100 mg/mL at 70 °F (NTP, 1992)
- o) Partition coefficient: n-octanol/water: Log P (n-octanol/water): 1
- p) Auto-ignition temperature: No data available
- q) Decomposition temperature: No data available
- r) Viscosity: No data available
- s) Explosive properties: No data available
- t) Oxidizing properties: No data available

9.2 Other information

Topological Polar Surface Area (TPSA): 83.1 Å²

Complexity: 740

10. STABILITY AND REACTIVITY

10.1 Reactivity

No specific reactivity hazards identified under normal handling conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions under normal conditions.

10.4 Conditions to avoid

Avoid heat, sparks, open flames, direct sunlight, and moisture.

Avoid strong oxidizing agents, strong acids, and strong bases.

10.5 Incompatible materials

Strong oxidizing agents, strong acids, strong bases.

10.6 Hazardous decomposition products

Thermal decomposition may produce: Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x).

See also Section 5 (Fire-fighting measures) for combustion products.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

No acute toxicity data available.

Skin corrosion/irritation:

No data available.

Serious eye damage/eye irritation:

Causes serious eye damage (H318).

Respiratory or skin sensitization:

No data available.

Germ cell mutagenicity:

May cause genetic defects (H340).

Carcinogenicity:

No data available.

Reproductive toxicity:

No data available.

Specific target organ toxicity (single exposure):

No data available.

Specific target organ toxicity (repeated exposure):

No data available.

Aspiration hazard:

No data available.

11.2 Additional information

Carcinogen classification:

No indication of carcinogenicity to humans (not listed by IARC).

Exposure routes:

Colchicine can be absorbed into the body by ingestion, inhalation, or eye contact. Colchicine can also be injected through the skin or administered intravenously. It is unknown whether colchicine can be absorbed through intact

skin.

Colchicine is rapidly absorbed after oral administration, probably from the jejunum and ileum. However, the rate and extent of absorption are variable, depending on the tablet dissolution rate; variability in gastric emptying, intestinal motility, and pH at the absor

Signs and symptoms of exposure:

- Eye contact with liquid colchicine may produce clouding of the cornea that clears in a few weeks.
- See Ingestion Exposure.
- Gastrointestinal phase: Nausea; loss of appetite (anorexia); abdominal pain; vomiting (emesis); profuse, watery, and bloody diarrhea; joint pain; generalized weakness; fever; rashes; and hypovolemic shock.
- Multiple system organ failure phase: Hypovolemic shock due to extreme vascular damage and fluid loss through the GI tract may result in death; kidney damage resulti

Data source: Hazardous Substances Data Bank (HSDB) via PubChem.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Colchicine's production and use as a gout suppressant may result in its release to the environment through various waste streams. Colchicine is an alkaloid of the meadow saffron, *Colchicum autumnale*. If released to air, an estimated vapor pressure of 3.2×10^{-11} mm Hg at 25 °C indicates colchicine will exist solely in the particulate phase in the atmosphere. Particulate-phase colchicine will be removed from the atmosphere by wet or dry deposition.

Colchicine contains chromophores that absorb at wavelengths >290 nm and therefore may be susceptible to direct photolysis by sunlight. If released to soil, colchicine is expected to have low mobility based upon an estimated Koc of 1900. Volatilization from moist soil surfaces is not expected to be an important fate process based upon an estimated Henry's Law constant of 1.8×10^{-17} atm-cu m/mole. Colchicine is not expected to volatilize from dry soil surfaces based upon its vapor pressure. Biodegradation data were not available. If released into water, colchicine is expected to adsorb to suspended solids and sediment based upon the estimated Koc. Volatilization from water surfaces is not expected to be an important fate process based upon this compound's estimated Henry's Law constant. An estimated BCF of 2.2 suggests the potential for bioconcentration in aquatic organisms is low. Hydrolysis is not expected to be an important environmental fate process since this compound lacks functional groups that hydrolyze under environmental condi

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

Log P (n-octanol/water): 1

Low potential for bioaccumulation (Log P < 3).

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available.

12.6 Other adverse effects

No other adverse ecological effects identified.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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

14. TRANSPORT INFORMATION**14.1 UN number**

Not regulated as dangerous goods (research quantities typically exempt).

14.2 UN proper shipping name

Not subject to transport regulations (small quantities for research use).

14.3 Transport hazard class(es)

Not classified as dangerous goods for transport (research quantities).

DOT label: Poison

14.4 Packing group

Not applicable (not regulated as dangerous goods in typical research quantities).

14.5 Environmental hazards

Marine pollutant: No (not classified as environmentally hazardous per GHS).

14.6 Special precautions for user

Transport in original packaging. Ensure containers are tightly sealed.

For bulk or commercial quantities, consult applicable transport regulations (DOT, IATA, IMDG).

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

US EPA / TSCA: Subject to EPA TSCA regulations

EU ECHA / REACH: Registered (REACH Active)

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

Acute (short-term) health hazard

Chronic (long-term) health hazard

Massachusetts Right To Know Components:

This material contains components subject to the Massachusetts Right to Know Act. See Section 2 for hazard classification.

Pennsylvania Right To Know Components:

This material contains components subject to the Pennsylvania Right to Know Act. See Section 2 for hazard classification.

New Jersey Right To Know Components:

This material contains components subject to the New Jersey Right to Know Act. See Section 2 for hazard classification.

California Prop. 65 Components:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Other regulatory listings:

- California Safe Cosmetics Program (CSCP) Reportable Ingredient: Hazard Traits - Developmental Toxicity; Genotoxicity; Reproductive Toxicity Authoritative List - EC Annex VI CMRs - Cat. 1B; Prop 65 Report - regardless of intended function of ingredient in the produ
- New Jersey Worker and Community Right to Know Act: The New Jersey Worker and Community Right to Know Act requires public and private employers to provide information about hazardous substances at their workplaces. (N.J.S.A. 34:5A-1 et. seq.)
- CERCLA Reportable Quantities: Colchicine is an extremely hazardous substance (EHS) subject to reporting requirements when stored in amounts in excess of its threshold planning quantity (TPQ) of 10 or 10,000 lbs. Extremely hazardous substances that are solids are subject to either of two threshold planning quantities ... The lowe
- FDA Requirements: The Approved Drug Products with Therapeutic Equivalence Evaluations List identifies currently marketed prescription drug products, incl colchicine, approved on the basis of safety and effectiveness by FDA under sections 505 of the Federal Food, Drug, and Cosmetic Act.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this substance.

For research-use-only compounds, no CSA is required under REACH Annex I.

16. OTHER INFORMATION

Revision Date: 2026/09/08

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.