

A Division of Spectrum Chemical Mfg. Corp.

Dear Customer,

This File Contains Both The ANSI Material Safety Data Sheet and The GHS Safety Data Sheet For The Same Product

Spectrum is currently transitioning all chemical product labeling from the ANSI format to the GHS format (see note below). In order to ensure that you receive complete labeling during the transition, we have included both the ANSI MSDS and the GHS SDS in a single file. The ANSI MSDS is given first, followed by the GHS SDS. Please use whichever matches the container label.

Why It Matters:

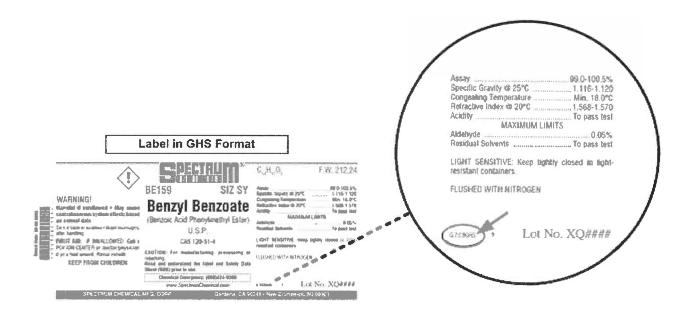
The complete precautionary labeling for this chemical consists of BOTH the label on the container AND the matching Material Safety Data Sheet (for ANSI labels) or Safety Data Sheet (for GHS labels). Both elements of the labeling [Label + (M)SDS] are written to be read and understood together, so as to provide complete precautionary information. It is intended for you to read and understood BOTH before handling or using the chemical.

<u>Picking the Right One</u>: 2 Easy Ways To Tell Whether Your Container Has an ANSI Label or a GHS Label

- 1) GHS labels: any pictogram displayed in the upper left-hand corner will be inside a red diamond. ANSI labels: pictograms, if present, will be inside individual black boxes.
- 2) GHS labels: on the bottom of the right-hand panel of the label, locate the Lot Number. Directly to the left will be a string of control characters, followed by a single letter. For GHS labels, the string of characters will end in "GHS:"



CORPORATE OFFICES
14422 South San Pedro Street
Gardena, California 90248
PHONE 310.516.8000
FAX 310.516.9843



¹ American National Standards Institute

Sincerely,

Regulatory Affairs

² Globally Harmonized System for Hazard Communication





SAFETY DATA SHEET

Preparation Date: No data available Revision Date: 04/13/2015 Revision Number: G1

Product identifier

Product code: CO115

Product Name: COLCHICINE, USP

Other means of identification

Synonyms: N-(5,6,7,9-Tetrahydro-1,2,3,10-tetramethoxy-9-oxobenzo[alpha]heptalen-7-

yl)acetamide; Benzo(a)heptalen-9(5H)-one, 7-acetamido-6,7-dihydro-1,2,3,10-tetramethoxy-; Colchineos; Colchisol; Colcin; Colgout; Condylon; N-Acetyl

trimethylcolchicinic acid methylether; Colchique

CAS #: 64-86-8
RTECS # GH0700000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use:
Uses advised against
No information available.
No information available

Supplier: Spectrum Chemicals and Laboratory Products, Inc.

14422 South San Pedro St.

Gardena, CA 90248 (310) 516-8000

Order Online At: https://www.spectrumchemical.com

Emergency telephone numberChemtrec 1-800-424-9300Contact Person:Martin LaBenz (West Coast)Contact Person:Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

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

Acute toxicity - Oral	Category 2
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Serious eye damage/eye irritation	Category 2A
Germ cell mutagenicity	Category 1B

Label elements

Product code: CO115 Product name: COLCHICINE, USP 1 / 12

Danger

Hazard statements

Fatal if swallowed Fatal if inhaled Causes serious eye irritation May cause genetic defects



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Wear respiratory protection

Wear eye/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Specific treatment (see .? on this label)

Specific treatment is urgent (see .? on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
------------	---------	----------	--------------

Product code: CO115 Product name: COLCHICINE, USP 2 / 12

3. COMPOSITION/INFORMATION ON INGREDIENTS						
Colchicine	64-86-8	100	*			
64-86-8						

4. FIRST AID MEASURES

First aid measures

General Advice: Poison information centers in each State capital city can provide additional

assistance for scheduled poisons (13 1126)

Skin Contact: Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for

at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention

is required. Call a physician or Poison Control Centre immediately.

Eye Contact: Flush eye with water for 15 minutes. Immediate medical attention is required. Call a physician

immediately.

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. Immediate medical attention is required.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an

unconscious person. Immediate medical attention is required. Fatal if swallowed.

Most important symptoms and effects, both acute and delayed

Symptoms Causes serious eye irritation. Fatal if swallowed. Fatal if inhaled. May cause heritable genetic

damage in humans.

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: Carbon dioxide (CO2). Dry chemical. Water spray mist or

foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon oxides, Nitrogen oxides

Specific hazards: May be combustible at high temperatures

When heated to decompositon it emits acrid smoke and

irritating fumes

Special Protective Actions for Firefighters

Specific Methods: No information available.

Product code: CO115 Product name: COLCHICINE, USP 3 / 12

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: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes

and clothing. Avoid dust formation. Keep people away from and upwind of spill/leak. 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 product from entering

drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containmentStop 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. 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 vapours/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. Sensitive to light. Store in light-resistant containers.

Incompatible Materials:

Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
	None	None	None	None
Colchicine - 64-86-8				

Canada

Components	Alberta	British Columbia	Ontario	Quebec
	None	None	None	None
Colchicine - 64-86-8				

Australia and Mexico

Product code: CO115 Product name: COLCHICINE, USP 4 / 12

Components	Australia	Mexico
Colchicine	None	None
64-86-8		

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. 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.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Safety glasses. Safety glasses with side-shields.

Skin and body protection: Chemical resistant apron. Gloves. Long sleeved clothing.

Respiratory protection: Effective dust mask. Wear respirator with dust filter..

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and

immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Product code: CO115 Product name: COLCHICINE, USP 5 / 12

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Appearance: Color:

Solid. Crystalline powder. Scales. Yellow. Greenish-Yellow.

Odor: Taste Molecular/Formula weight:

Odorless. No information available 399.44

Formula: Flash point (°C): Flashpoint (°C/°F): No data available No information available.

Flash Point Tested according to: Lower Explosion Limit (%): Upper Explosion Limit (%):

Not available No information available No information available

Autoignition Temperature (°C/°F): pH: Melting point/range(°C/°F):

No information available No information available 142°-157°C/287.6°-314.6°F

Boiling point/range(°C/°F): Decomposition temperature(°C/°F): Bulk density:

No information available No information available No information available

Specific gravity: Density (g/cm3): Vapor pressure @ 20°C (kPa):

No information available

No information available

No information available

Evaporation rate: Vapor density: VOC content (g/L):

Odor threshold (ppm): Partition coefficient Viscosity:

No information available (n-octanol/water): No information available

Miscibility: Solubility:

No information available Soluble in cold water

Soluble in Methanol Freely soluble in alcohol Freely soluble in Chloroform

Practically insoluble in Petroleum Ether 1 gram dissolves in 22mL of water, 220mL of ether, and 100mL of benzene

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents

Chemical stability

Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials. Exposure to light.

Incompatible Materials: Oxidizing agents.

Hazardous decomposition products: Carbon oxides. Nitrogen oxides (NOx).

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

Product code: CO115 Product name: COLCHICINE, USP 6 / 12

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Ingestion. Inhalation.

Acute Toxicity

Component Information

Colchicine - 64-86-8

LD50/oral/rat = No information available

LD50/oral/mouse = = 5.886 mg/kg Oral LD50 Mouse

LD50/dermal/rat = No information available

LD50/dermal/rabbit = No information available

LC50/inhalation/rat = No information available

LC50/inhalation/mouse = No infomation 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 = 5.886mg/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: Causes serious eye irritation.

Inhalation Fatal if inhaled. May cause respiratory tract irritation. Higher exposures can cause a

build-up of fluid in the lungs (pulmonary).

Product code: CO115 Product name: COLCHICINE, USP 7 / 12

Ingestion

May be fatal if swallowed. It can cause gastrointestinal irritation, burning sensation in the throat, nausea, vomiting, diarrhea (which may be bloody or watery), loss of appetite, stomach (abdominal) pain or cramps, dehydration, hypovolemia, shock. May affect behavior/central nervous system (somnolence, ataxia, dizziness, convulsions, hallucinations, distorted perceptions, tremor, confusion, agitation, coma, muscle weakness), peripheral nervous system (flaccid paralysis with anesthesia (usually neurmuscular blockage), peripheral neuritis or neuropathy (numbness or tingling in the hands and feet due to peripheral nerve damage)), cardiovascular system (hypotension, pulse rate), kidneys (changes in tubules, acute renal failure, acute tubular necrosis), liver, respiration (dyspnea, respiratory failure). May cause transient hyperglycemia (diabetes mellitus). May cause electrolyte embalance, metabolic acidosis or lactic acidosis due to diarrhea and/or shock.

Aspiration hazard No information available

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

Chronic Toxicity Ingestion: May cause vomiting, hypermotility and diarrhea. May cause kidney and

liver damage. May affect the blood and bone marrow cause changes in serum composition, bone marrow suppression (hypoplasia or aplasia), aplastic anemia, thrombocytopenia (low platets), leukopenia, acute myelomonocytic leukemia, agranulocytosis, decrease in coagulation factors. May cause myopathy, muscle weakness. May cause hair loss (alopecia). May cause rhabdomyolysis (damage and

breakdown of skeletal muscle tissue), joint pain.

Sensitization: No information available

Mutagenic Effects: Mutagenic effects on mammalian germ cells

Mutagenic effects in mammalian somatic cells

May affect genetic material

Carcinogenic effects: Not considered carcinogenic

Components	ACGIH -	IARC	NTP	OSHA HCS -	Australia - Prohibited	Australia - Notifiable
	Carcinogens			Carcinogens	Carcinogenic	Carcinogenic
					Substances	Substances
Colchicine	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: May cause adverse reproductive effects.

Developmental Effects: No information available

Teratogenic Effects: Causes birth defects (teratogenic effects)

Specific Target Organ Toxicity

STOT - single exposureSTOT - repeated exposure
No information available
No information available

Target Organs: Blood. Bone Marrow. Digestive System. Gastrointestinal tract. Kidneys. Liver. Lungs.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Product code: CO115 Product name: COLCHICINE, USP 8 / 12

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:

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	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Colchicine	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN1544

Proper Shipping Name: Alkaloids, solid, n.o.s. (Colchicine)

Hazard Class: 6.1

Subsidiary Risk:

Packing Group: II ERG No: 151

Marine Pollutant

DOT RQ (lbs):

No data available

No information available

Symbol(s): G

TDG (Canada)

`UN-No: UN1544

Proper Shipping Name: Alkaloid salts, solid, n.o.s.

Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group:

Description: No information available

ADR

UN-No: UN1544

Proper Shipping Name: Alkaloids, solid, n.o.s.

Hazard Class: 6.1 Packing Group: II

Subsidiary Risk:No information availableClassification Code:No information availableDescription:No information availableCEFIC Tremcard No:No information available

IMO / IMDG

UN-No: UN1544

Product code: CO115 Product name: COLCHICINE, USP 9 / 12

14. TRANSPORT INFORMATION

Proper Shipping Name: Alkaloids, solid, n.o.s.

Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group:

Description:No information availableIMDG Page:No information availableMarine PollutantNo information available

EMS: F-A

MFAG: No information available Maximum Quantity: No information available

RID

UN-No: UN1544

Proper Shipping Name: Alkaloids, solid, n.o.s.

Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group:

Classification Code: No information available Description: No information available

ICAO

UN-No: UN1544

Proper Shipping Name: Alkaloids, solid, n.o.s.

Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group:

Description: No information available

IATA

UN-No: UN1544

Proper Shipping Name: Alkaloids, solid, n.o.s.

Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group: II ERG Code: 6L

Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL		Japan ENCS	CHINA	Australia	EINECS-No.
			(PICCS)			(AICS)	
Colchicine	Present	Not present	Present	Not present	Present	Present	Present 200-598-5

U.S. Regulations

Colchicine

Massachusetts RTK: Present

New Jersey RTK Hazardous Substance List: 2263

New Jersey (EHS) List: 2263 10 lb TPQ

New Jersey - Discharge Prevention - List of Hazardous Substances: Present

Pennsylvania RTK: Environmental hazard

Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
New York Release Reporting - List of Hazardous Substances:

= 1 lb RQ

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

Product code: CO115 Product name: COLCHICINE, USP 10 / 12

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	Carcinogen	Developmental Toxicity	Male Reproductive	Female Reproductive
			Toxicity	Toxicity:
Colchicine	Not Listed	developmental toxicity	male reproductive toxicity	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous	Section 302 Extremely	Section 302 Extremely	Section 313 -	Section 313 - Reporting
	Substances and their	Hazardous	Hazardous	Chemical Category	de minimis
	Reportable Quantities	Substances and TPQs	Substances and RQs		
Colchicine	None	10 lb lower TPQ	None	None	None
		10000 lb upper TPQ			
		10			

U.S. TSCA

	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Colchicine	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

D1A Very toxic materials D2A Very 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	Canada (DSL)	Canada (NDSL)
Colchicine	Present	Not Listed

C	Components		CEPA - 2010 Greenhouse Gases Subject to Manditory Reporting
C	Colchicine	Not listed	Not listed

EU Classification

R-phrase(s)

R28 - Very toxic if swallowed.

R46 - May cause heritable genetic damage.

S -phrase(s)

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

S53 - Avoid exposure - obtain special instructions before use.

Product code: CO115 Product name: COLCHICINE, USP 11 / 12

Components	Classification	Concentration Limits:	Safety Phrases
Colchicine	T+; R28	No information	S53 S45
	Muta.Cat.2; R46		

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

Indication of danger:

T+ - Very toxic.

16. OTHER INFORMATION

Revision Date: 04/13/2015
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 SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet

Product code: CO115 Product name: COLCHICINE, USP 12 / 12





Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment
310	Health Hazard 3 Fire Hazard 1	
	Reactivity 0	See Section 15.

Section 1. Chemical Product and Company Identification			Page Number: 1	
Common Name/ Trade Name	Colchicine	Catalog Number(s).	CO115	
		CAS#	64-86-8	
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC.	RTECS	GH0700000	
	14422 S. SAN PEDRO STREET GARDENA, CA 90248	TSCA	TSCA 8(b) inventory: Colchicine	
Commercial Name(s)	Not available.		Not available.	
Synonym	N-(5,6,7,9-Tetrahydro-1,2,3,10-tetramethoxy-9-oxobenzo[alpha]heptalen-7-yl)acetamide; Benzo(a)heptalen-9(5H)-one, 7-acetamido-6,7-dihydro-1,2,3,10-tetramethoxy-; Colchineos; Colchisol; Colcin; Colgout; Condylon; N-Acetyl trimethylcolchicinic acid methylether; Colchique (French)			
Chemical Name	Not available.			
Chemical Family Not available.		CALL (310) 5	CALL (310) 516-8000	
Chemical Formula	C22H25NO6	_		
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	•		

Section 2.Composition and Information on Ingredients						
				Exposure Limits		
Name		CAS#	TWA (mg/m³)	STEL (mg/m³)	CEIL (mg/m³)	% by Weight
1) Colchicine		64-86-8				100
Toxicological Data on Ingredients	Colchicine: ORAL (LD50):	Acute: 5.886 m	ng/kg [Mouse]. 26 m	ng/kg [Rat]. 42 m	g/kg [Quail].	

Section 3. Hazards Identification

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

Continued on Next Page

Colchicine	Page Number: 2
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for mammalian germ and somatic cells. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to blood, kidneys, lungs, liver, digestive system, gastrointestinal tract, bone marrow, muscle tissue. 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. Get medical attention.	
Skin Contact	Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.	
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	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.	
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 Ex	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, CO2), nitrogen oxides (NO, NO2).		
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of open flames and sparks, of heat.		
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
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	When heated to decomposition it emits toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides.		
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.	
Large Spill	Poisonous solid. 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.	

Page Number: 3

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. Avoid contact with eyes. 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. Sensitive to light. Store in light-resistant containers.	

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	Splash goggles. 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. (Crystalline solid. Crystalline powder. Scales)	Odor	Odorless.
Molecular Weight	399.45 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Yellow. Greenish yellow (Light.)
Boiling Point	Not available.		
Melting Point	142-157 ℃ (287.6-314.6 ℉)		
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.	The product is more soluble in oil; log(oil/water) =	1	
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, methanol.		
Solubility	Soluble in cold water, methanol. 1 g dissolves in 22 ml water, 220 ml ether, 100 ml benzene. Freely soluble in alcohol or chloroform. Practically insoluble in petroleum ether Solubility in water: 4.5 g/100 g water @ 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, exposure to light, incompatible materials		
Incompatibility with various substances	Reactive with oxidizing agents.		
Corrosivity	Non-corrosive in presence of glass.		

Continued on Next Page

Colchicine		Page Number: 4
Special Remarks on Reactivity	Sensitive to light. It darkens on exposure to light	
Special Remarks on Corrosivity	Not available.	
Polymerization	Will not occur.	

Polymerization	Will not occur.			
Section 11. Toxicolo	Section 11. Toxicological Information			
Routes of Entry	Inhalation. Ingestion.			
Toxicity to Animals	Acute oral toxicity (LD50): 5.886 mg/kg [Mouse].			
Chronic Effects on Humans	MUTAGENIC EFFECTS: Mutagenic for mammalian germ and somatic cells. May cause damage to the following organs: blood, kidneys, lungs, liver, digestive system, gastrointestinal tract, bone marrow, muscle tissue.			
Other Toxic Effects on Humans	Very hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.			
Special Remarks on Toxicity to Animals	Not available.			
Special Remarks on Chronic Effects on Humans	Can affect genetic material (mutagenic). Can cause adverse reproductive effects and birth defects (teratogenic)			
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: Causes eye irritation. May cause severe eye irritation. Inhalation: Inhalation of dust causes respiratory tract irritation. Higher exposures can cause a build-up of fluid in the lungs (pulmonary). Ingestion: May be fatal if swallowed. It can cause gastrointestinal irritation, burning sensation in the throat, nausea, vomiting, diarrhea (which may be bloody or watery), loss of appetitie, stomach(abdominal) pain or cramps, dehydration, hypovolemia, shock. May affect behavior/central nervous system (somnolence, ataxia, dizziness, convulsions, hallucinations, distorted perceptions, tremor, confusion, agitation, coma, muscle weakness), peripheral nervous system (flaccid paralysis with anesthesia(usually neurmuscular blockage), peripheral neuritis or neuropathy (numbness or tingling in the hands and feet due to peripheral nerve damage)), cardiovascular system (hypotension, pulse rate), kidneys (changes in tubules, acute renal failure, acute tubular necrosis), liver, respiration (dyspnea, respiratory failure). May cause transient hyperglycemia (diabetes mellitus). May cause electrolyte embalance, metabolic acidosis or lactic acidosis due to diarrhea and/or shock. Chronic Potential Health Effects: Ingestion: May cause vomiting, hypermotility and diarrhea. May cause kidney and liver damage. May affect the blood and bone marrow cause changes in serum composition, bone marrow suppression (hypoplasia or aplasia) , aplastic anemia, thrombocytopenia (low platets), leukopenia, acute myelomonocytic leukemia, agranulocytosis, decrease in coagulation factors. May cause myopathy, muscle weakness. May cause hair loss (alopecia). May cause rhabdomyolysis (damage and breakdown of skeletal muscle tissue), joint pain.			

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.		

Colchicine Page Number: 5

Section 13. Disposal Considerations

Vaste Disposal

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

Section 14. Transport Information DOT Classification CLASS 6.1: Poisonous material. Identification UNNA: 1544: Alkaloid, solid, n.o.s. (Colchicine) PG: II Special Provisions for Transport DOT (Pictograms) POISON

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (male) which would require a warning under the statute: Colchicine

California prop. 65: This product contains the following ingredients for which the State of California has found

to cause birth defects which would require a warning under the statute: Colchicine

New York release reporting list: Colchicine

Pennsylvania RTK: Colchicine Massachusetts RTK: Colchicine New Jersey: Colchicine New Jersey spill list: Colchicine TSCA 8(b) inventory: Colchicine

SARA 302/304/311/312 extremely hazardous substances: Colchicine CERCLA: Hazardous substances.: Colchicine: 10 lbs. (4.536 kg)

California Proposition 65 Warnings	California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Colchicine		
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 (EINECS No. 200-598-5). Canada: Listed on Canadian Domestic Substance List (DSL). China: Listed on National Inventory. Japan: Not listed on National Inventory (ENCS). Korea: Not listed on National Inventory (KECI). Philippines: Listed on National Inventory (PICCS). Australia: Listed on AICS.		
Other Classifications	WHMIS (Canada)	CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC). Class D-2B: Material causing other toxic effects (TOXIC).	
	DSCL (EEC)	R28- Very toxic if swallowed. R46- May cause heritable genetic damage.	S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53- Avoid exposure - obtain special

HMIS (U.S.A.)



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

Health 3 0

instructions before use.

Flammability

Reactivity

Colchicine			Page Number: 6
	Personal Protection E		Specific hazard
WHMIS (Canada) (Pictograms)			
DSCL (Europe) (Pictograms)	7.		
TDG (Canada) (Pictograms)			
ADR (Europe) (Pictograms)			
Protective Equipment	Lab coat. Dust respirat approved/cei equivalent. N	tor. Be sure to use an rtified respirator or Wear appropriate nen ventilation is les.	
0 // 10 2 //			
Section 16. Other In			
	t available.		
0.1 0 1.1	jor Use: Medication		
			L.

Notice to Reader

Continued on Next Page

Colchicine Page Number: 7

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) 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 MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.