

10/21/05



**SIGMA-ALDRICH**

# Material Safety Data Sheet

Date Printed: 04/25/2002  
Date Updated: 10/21/1999  
Version 1.0

## Section 1 - Product and Company Information

<b>Product Name</b>	TANNIC ACID	
<b>Product Number</b>	216712	
<b>Brand</b>	Aldrich Chemical	
<b>Company</b>	Sigma-Aldrich	
<b>Street Address</b>	3050 Spruce Street	
<b>City, State, Zip, Country</b>	SAINT LOUIS, MO, 63103, US	
<b>Technical Phone:</b>	314 771 5765	<b>Emergency Phone:</b> 414 273 3850 Ext. 5996
<b>Fax</b>	800 325 5052	

## Section 2 - Composition/Information on Ingredient

<b>Substance Name</b>	<b>CAS #</b>	<b>SARA 313</b>
TANNIC ACID	1401-55-4	No
<b>Formula</b>	C76H52O46	
<b>Synonyms</b>	Acid, tannic, Acide tannique (French), Gallotannic acid, Gallotannin, Glycerite, Tannin	

## Section 3 - Hazards Identification

**Emergency Overview**  
Irritant.  
Irritating to eyes, respiratory system, and skin.  
Target organ(s): Liver. Kidneys. Male reproductive system. Female reproductive system. Target organ(s): Liver. Kidneys. Readily absorbed through skin.

For additional information on toxicity, please refer to Section 11.

## Section 4 - First Aid Measures

**Immediate Treatment - Work Site**  
In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

**Oral Exposure**  
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Inhalation Exposure**  
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

## Section 5 - Fire Fighting Measures

**Autoignition Temp:** 527 °C      **Flammability:** N/A

**Extinguishing Media**  
**Suitable**  
Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

**Firefighting**  
**Protective Equipment**  
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## Section 6 - Accidental Release Measures

**Procedure to be Followed in Case of Leak or Spill**  
Evacuate area.

**Procedure(s) of Personal Precaution(s)**  
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable coveralls and discard them after use.

**Methods for Cleaning Up**  
Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

## Section 7 - Handling and Storage

**Handling**  
**User Exposure**  
Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

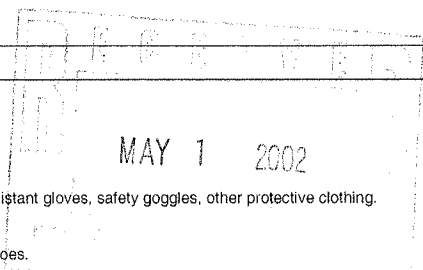
**Storage**  
**Suitable**  
Keep tightly closed. Store in a cool dry place.

## Section 8 - Exposure Controls / PPE

**Engineering Controls**  
Safety shower and eye bath. Use only in a chemical fume hood.

**Personal Protective Equipment**  
**Other**  
Wear appropriate NIOSH/MSHA-approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

**General Hygiene Measures**  
Wash thoroughly after handling. Discard contaminated clothing and shoes.



## Section 9 - Physical/Chemical Properties

**Appearance**  
**Physical State**  
Solid

**Molecular Weight:** 1,701.23 AMU

<u>Property</u>	<u>Value</u>
pH	N/A
BP/BP Range	N/A
MP/MP Range	218 °C
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A

Evaporation Rate N/A  
Viscosity N/A  
Partition Coefficient N/A  
Decomposition Temp. N/A  
Flash Point °F N/A  
Flash Point °C N/A  
Explosion Limits N/A  
Autoignition Temp 527 °C  
Solubility N/A

## Section 10 - Stability and Reactivity

### Stability

#### Materials to Avoid

Strong oxidizing agents, Strong bases.

### Hazardous Decomposition Products

#### Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide.

## Section 11 - Toxicological Information

### Route of Exposure

#### Skin Absorption

Readily absorbed through skin.

#### Inhalation

Material is irritating to mucous membranes and upper respiratory tract.

#### Multiple Routes

May be harmful by inhalation, ingestion, or skin absorption. Causes eye and skin irritation.

### Target Organ(s) or System(s)

Liver. Kidneys. Male reproductive system. Female reproductive system.

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Exposure can cause: Nausea, headache, and vomiting.

RTECS Number: WW5075000

### Toxicity Data

Oral - Rat: 2,260 mg/kg (LD50)

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Lungs, Thorax, or Respiration:Dyspnea.

Gastrointestinal:Other changes.

Intraperitoneal - Mouse: 120 MG/KG (LD50)

Intramuscular - Mouse: 350 MG/KG (LD50)

Oral - Rabbit: 5,000 mg/kg (LD50)

Remarks: Gastrointestinal:Gastritis.

Lungs, Thorax, or Respiration:Chronic pulmonary edema.

### Chronic Exposure Carcinogen

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Rat - Subcutaneous: 4450 MG/KG 17W I

Result: Tumorigenic:Carcinogenic by RTECS criteria. Liver:Hepatitis, fibrous (cirrhosis, post-necrotic scarring). Liver:Other changes.

Mouse - Skin: 476 UG/KG 17D I

Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors. Tumorigenic:Facilitates action of known carcinogens.

Aldrich Chemical - 216712

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Mouse - Subcutaneous: 750 MG/KG 12W I

Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Liver:Tumors.

Rat - Subcutaneous: 3750 MG/KG I

Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Liver:Hepatitis, fibrous (cirrhosis, post-necrotic scarring). Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

Rat - Subcutaneous: 4250 MG/KG 17W I

Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Liver:Tumors.

Rat - Subcutaneous: 4286 MG/KG 20W I

Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Liver:Other changes. Liver:Tumors.

### IARC Carcinogen List

#### Rating

Group 3

### Chronic Exposure - Mutagen

Species	Dose	Route	Mutation test
Rat	25 GM/KG	Oral	Unscheduled DNA synthesis
Rat	375 MG/KG	Subcutaneous	Unscheduled DNA synthesis
Mouse	76 MG/KG	Intraperitoneal	DNA inhibition
Rat	2 GM/KG	Oral	Other mutation test systems

### Chronic Exposure - Reproductive Hazard

Species	Dose	Route of Application	Exposure Time
Rat	112 GM/KG	Oral	(49D PRE/1-21D PREG)
			Result: Effects on Newborn: Live birth index (# fetuses per litter; measured after birth). Effects on Newborn: Growth statistics (e.g., reduced weight gain).
Rat	5 MG/KG	Subcutaneous	(1D PRE)
			Result: Maternal Effects: Ovaries, fallopian tubes.
Mouse	1478 GM/KG	Oral	(11W MALE/11W PRE)
			Result: Effects on Newborn: Live birth index (# fetuses per litter; measured after birth). Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive). Effects on Newborn: Weaning or lactation index (e.g., # alive at weaning per # alive at day 4).

## Section 12 - Ecological Information

## Section 13 - Disposal Considerations

### Appropriate Method of Disposal of Substance or Preparation

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

## Section 14 - Transport Information

### DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

### IATA

Proper Shipping Name: None

Non-Hazardous for Air Transport: Non-hazardous for air transport.

## Section 15 - Regulatory Information

### US Classification and Label Text

#### Indication of Danger

Irritant.

Aldrich Chemical - 216712

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**Risk Statements**

Irritating to eyes, respiratory system, and skin.

**Safety Statements**

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. Do not breathe dust.

**US Statements**

Target organ(s): Liver. Kidneys. Male reproductive system. Female reproductive system. Target organ(s): Liver. Kidneys. Readily absorbed through skin.

**United States Regulatory Information**

SARA 313 Listed: No

TSCA Inventory Item: Yes

**Section 16 - Other Information**

Warranty

MAY 1 2002