Material Safety Data Sheet
Tannic Acid

ACC# 22410

Section 1 - Chemical Product and Company Identification

MSDS Name: Tannic Acid
Catalog Numbers: S80215, A310 500, A310-500, A310500, S80215-1
Synonyms: Gallotannin; Glycerite; Gallotannic acid
Company Identification:
Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
1401-55-4	Tannic Acid	100	215-753-2

Hazard Symbols: None listed.
Risk Phrases: None listed.

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow-brown powder. **Caution!** Causes eye and skin irritation. Causes digestive and respiratory tract irritation. May cause liver damage. May cause cancer based on animal studies. May be readily absorbed through the skin.
Target Organs: Kidneys, liver, skin.

Potential Health Effects
Eye: May cause eye irritation. May result in corneal injury.
Skin: May cause skin irritation. May be absorbed through the skin in harmful amounts.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver damage.
Inhalation: Dust is irritating to the respiratory tract.
Chronic: Chronic ingestion may cause liver damage.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water.
Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid if irritation or symptoms occur.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Runoff from fire control or dilution water may cause pollution.
Extinguishing Media: Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Flash Point: 390e deg F (198.89 deg C)
Autoignition Temperature: 980 deg F (526.67 deg C)
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 0; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.
Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed. Store protected from light.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Tannic Acid	none listed	none listed	none listed

OSHA Vacated PELs: Tannic Acid: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face

protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Powder
Appearance: yellow-brown
Odor: faint odor
pH: Weak acid in water.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: Decomposes
Decomposition Temperature:218 deg C
Solubility: Completely soluble in water
Specific Gravity/Density: Not available.
Molecular Formula:C76H52O46
Molecular Weight:1700.3364

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation.
Incompatibilities with Other Materials: Strong oxidizing agents; strong bases.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, acrid smoke and fumes.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 1401-55-4: FM3015000; PY7955000; UZ3400000; WU7185000; WW5075000
LD50/LC50:
CAS# 1401-55-4:
Oral, rabbit: LD50 = 5 gm/kg;
Oral, rat: LD50 = 2260 mg/kg;
Carcinogenicity:
CAS# 1401-55-4:
IARC: IARC Group 3 - not classifiable
Epidemiology: No epidemiological studies or case reports of human exposure were available to the IARC working group. Per IARC, Tan nic acid produced liver tumors in rats and mice following subcutaneous injection.
Teratogenicity: TDLo(Subcutaneous, mouse) = 750 mg/kg/12W-I; Liver - tumors
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: No information available.

Other Studies: Tannic acid administered via the intraperitoneal or subcutan eous routes was found to accumulate in the liver and c ause necrosis in rats. In autopsied human burn cases, li ver necrosis attributable to absorption of tannic acid wer e observed. Eight deaths due to acute liver failure have b een suggested to be associated with the use of barium en emas containing tannic acid.

Section 12 - Ecological Information

Ecotoxicity: Fish: Mosquito Fish: LC50 = 37 mg/L; 96 Hr.; Unspecified

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	No information available.				No information available.
Hazard Class:					
UN Number:					
Packing Group:					

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 1401-55-4 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA

CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
SARA Codes

CAS # 1401-55-4: acute.
Section 313
No chemicals are reportable under Section 313.
Clean Air Act:
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 1401-55-4 can be found on the following state right to know lists: California.
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols:
Not available.
Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)
CAS# 1401-55-4: 1
Canada - DSL/NDSL
CAS# 1401-55-4 is listed on Canada's DSL List.
Canada - WHMIS
This product has a WHMIS classification of D2B.
Canadian Ingredient Disclosure List
Exposure Limits

Section 16 - Additional Information

MSDS Creation Date: 6/23/1999
Revision #4 Date: 3/18/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.