SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: TANNIC ACID, USP (Tannin)
PRODUCT CODE: 0604
SUPPLIER:
MEDISCA Inc.
Tel.: 1.800.932.1039 | Fax.: 1.855.850.5855
661 Route 3, Unit C, Plattsburgh, NY, 12901
3955 W. Mesa Vista Ave., Unit A-10, Las Vegas, NV, 89118
6641 N. Belt Line Road, Suite 130, Irving, TX, 75063
MEDISCA Pharmaceutique Inc.
Tel.: 1.800.665.6334 | Fax.: 514.338.1693
4509 Rue Dobrin, St. Laurent, QC, H4R 2L8
21300 Gordon Way, Unit 153/158, Richmond, BC V6W 1M2
MEDISCA Australia PTY LTD
Tel.: 1.300.786.392 | Fax.: 61.2.9700.9047
Unit 7, Heritage Business Park
5-9 Ricketty Street, Mascot, NSW 2020

EMERGENCY PHONE:
CHEMTREC Day or Night within USA and Canada: 1-800-424-9300
NSW Poisons Information Centre: 131 126

USES: Pharmaceutical preparations

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION:
Acute Aquatic Toxicity (Category 3)
Acute Toxicity - Oral (Category 5)
Eye Irritation (Category 2A)

PICTOGRAM:

SIGNAL WORD:
Warning

HAZARD STATEMENT(S):
Harmful to aquatic life.
Causes serious eye irritation.
May be harmful if swallowed.
Suspected respiratory sensitizer.

AUSTRALIA-ONLY HAZARDS:
Not Available.

PRECAUTIONARY STATEMENT(S):
Prevention:
Avoid release to the environment.
Wear eye and face protection.
Wash thoroughly after handling.
Avoid breathing dust, fume, gas, mist, vapors, spray.
In case of inadequate ventilation wear respiratory protection.

Response:
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: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms call a poison center or medical professional.

Storage:
Not Available.

Disposal:
Dispose of contents and/or container in accordance with local regulations.

HMIS CLASSIFICATION:
Health Hazard: 1
Flammability: 1
SAFETY DATA SHEET

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>Pentadigalloyl Glucose</th>
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<tr>
<td>BOTANICAL NAME</td>
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<tr>
<td>SYNONYM</td>
<td>Gallotannin; Glycerite; Gallotannic Acid</td>
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<tr>
<td>CHEMICAL FORMULA</td>
<td>C_{76}H_{52}O_{46}</td>
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<tr>
<td>CAS NUMBER</td>
<td>1401-55-4</td>
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<tr>
<td>ALTERNATE CAS NUMBER</td>
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<tr>
<td>MOLECULAR WEIGHT</td>
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**COMPOSITION**

<table>
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<tr>
<th>CHEMICAL NAME</th>
<th>CAS NUMBER</th>
<th>% BY WEIGHT</th>
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<tbody>
<tr>
<td>TANNIC ACID</td>
<td>1401-55-4</td>
<td>90-100*</td>
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</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

*The balance is water.

**NOTES**

SECTION 4: FIRST-AID MEASURES

**IN CASE OF EYE CONTACT**
Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.

**IN CASE OF SKIN CONTACT**
Wash with soap & water for 15 minutes. If irritation persists seek medical aid.

**IF SWALLOWED**
Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

**IF INHALED**
Not expected to present a significant hazard under anticipated conditions of normal use.

SECTION 5: FIREFIGHTING MEASURES

**SPECIFIC HAZARDS ARISING FROM THE CHEMICAL**
Not applicable

**FLAMMABLE PROPERTIES**
May be combustible at high temperature

**HAZARDOUS COMBUSTION PRODUCTS**
Under fire conditions, hazardous fumes will be present.

**EXTINGUISHING MEDIA**
- Small fire: dry chemical, CO₂ or water spray. Largé fire: dry chemical, CO₂, alcohol resistant foam or water spray. Do not get water inside containers.

**PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS**
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS**
Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
SAFETY DATA SHEET

Section 1: Identity

**Chemical Name:** TANNIC ACID
**CAS #:** 1401-55-4

**Physical and Chemical Properties**

**Solid**

**Description:** Amorphous powder, glistening scales, or spongy masses, varying in color from yellowish white to light brown. Odorless or has a faint, characteristic odor.

**Solubility:** Very soluble in water, acetone, alcohol and glycerin; freely soluble in diluted alcohol and only slightly soluble in dehydrated alcohol; practically insoluble in benzene, chloroform, ether or hexane.

**Section 7: Handling and Storage**

**Precautions for Safe Handling:**

Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling.

**Storage Conditions:**

Store in original container, tightly sealed container, protected from direct sunlight, in a dry, well-ventilated area, away from incompatible materials. Store in accordance with local regulations. Eliminate all ignition sources. Separate from oxidizing materials. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Preserve in tight, light-resistant containers.

**Section 8: Exposure Controls/ Personal Protection**

**Exposure Guidelines:** Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m³

**Personal Protective Equipment:**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. **Skin:** Wear appropriate gloves to prevent skin exposure. **Clothing:** Wear appropriate protective clothing to minimize contact with skin. **Respirators:** Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Specific Engineering Controls:** Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.
SECTION 10: STABILITY AND REACTIVITY

REACTIVITY
Not established

STABILITY
Stable under recommended storage conditions

MATERIALS TO AVOID
Strong oxidizing agents, strong bases. Heavy metal salts.

HAZARDOUS DECOMPOSITION PRODUCTS
Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur

HAZARDOUS POLYMERIZATION
Will not occur

POSSIBILITY OF HAZARDOUS REACTION
Not established

CONDITIONS TO AVOID
Moisture, sunlight and extreme temperatures

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY
Oral: Rat: LD50: (mg/kg): 2260
Dermal: Rabbit LD50: (mg/kg): Not available
Inhalation: Rat: LD50: (mg/L/4hr): Not available

SKIN CORROSION/IRRITATION
Due to lack of data the classification is not possible.

SERIOUS EYE DAMAGE/EYE IRRITATION
Causes serious eye irritation.
Eye irritation. Result: 10% solution applied to conjunctiva caused slight or mild irritation. Species: Rabbit
Eye irritation. Result: Injection to cornea produced some injury. Species: Rabbit

RESPIRATORY OR SKIN SENSITIZATION
Respiratory sensitization: Due to lack of data the classification is not possible. Suspected respiratory sensitiser: The Toolbox profiler Respiratory sensitisation gives an alert for respiratory sensitisation.
Skin sensitization: Due to lack of data the classification is not possible.

GERM CELL MUTAGENICITY
Due to lack of data the classification is not possible.

CARCINOGENICITY
OSHA
TANNIC ACID is not listed.
SAFETY DATA SHEET

NTP: TANNIC ACID is not listed.
IARC: TANNIC ACID is listed in group 3 (not classifiable as to its carcinogenicity to humans).
California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

ADDITIONAL CARCINOGENICITY INFORMATION

Suspected of causing cancer.
0.75 mg/kg 18-Month study. Result: No local tumors were observed following subcutaneous injections. Species: Mouse
200 mg/kg 10-Month study. Result: Subcutaneous injections produced liver tumors and local sarcomas. Species: Mouse

REPRODUCTIVE TOXICITY

Due to lack of data the classification is not possible.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

Due to lack of data the classification is not possible.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE

Due to lack of data the classification is not possible.

ASPIRATION HAZARDS

Based on available data, the classification criteria are not met.

SIGNS AND SYMPTOMS OF EXPOSURE

Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms related to the physical, chemical, and toxicological characteristics

Delayed and immediate effects of exposure
Liver toxicity. Kidney impairment.

Medical conditions aggravated by exposure

POTENTIAL HEALTH EFFECTS

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation. May cause allergic reaction.
Ingestion: May be harmful if swallowed. May cause digestive tract irritation.
Skin: May be harmful if absorbed through skin. May be readily absorbed through the skin. May cause skin irritation.
Eyes: Causes serious eye irritation. May result in corneal injury.

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY

EC50: 48 Hr: Crustacea: (mg/L): Not available
LC50: 96 Hr: Fish: Gambusia affinis): (mg/L): 37
IC50: 72 Hr: Algae: (mg/L): Not available

PERSISTENCE AND DEGRADABILITY

Suspected persistent in the environment: The Danish QSAR database contains information indicating that the substance is predicted as non readily biodegradable.

BIOACCUMULATIVE POTENTIAL

Not available

MOBILITY IN SOIL

Very soluble in water.

OTHER ADVERSE EFFECTS

Not available

This product is not intended to be released into the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.
SAFETY DATA SHEET

SECTION 14: TRANSPORT INFORMATION

UNITED STATES & CANADA
UN PROPER SHIPPING NAME: Not dangerous good
UN NUMBER: Not applicable
CLASS: Not applicable
PACKING GROUP: Not applicable

AUSTRALIA
UN PROPER SHIPPING NAME: Not dangerous good
UN NUMBER: Not applicable
CLASS: Not applicable
PACKING GROUP: Not applicable
HAZCHEM: Not available
ENVIRONMENTAL HAZARDS: Not available
SPECIAL SHIPPING INFORMATION: Not applicable

SECTION 15: REGULATORY INFORMATION

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<td>N/L</td>
<td>N/L</td>
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N/L = Not Listed; X = Listed

AUSTRALIAN REGULATIONS

<table>
<thead>
<tr>
<th>Chemical Name &amp; CAS</th>
<th>Poisons and Therapeutic Goods Regulation</th>
<th>Therapeutic Goods Act</th>
<th>Code of Practices - Illicit Drug Precursors</th>
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SECTION 16: OTHER INFORMATION

REFERENCES
Available upon request

Last Revision: 11/2017
ABBREVIATIONS AND ACRONYMS

CAS – Chemical Abstract Service; GHS – Global Harmonized System; OSHA PEL – Occupational Safety & Health Administration Permissible Exposure Limits; TWA – Time Weighted Average; HSIS – Hazardous Substances Information System; STEL – Short Term Exposure Limit; AIHA WEEL – American Industrial Hygiene Association Workplace Environment Exposure Levels; LD50 – Lethal Dose, 50%; IARC – International Agency for Research on Cancer; NTP – National Toxicology Program; WHMIS – Workplace Hazardous Materials Information System; SARA – Superfund Amendments and Reauthorization Act; EPA – Environmental Protection Agency; CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act; HMIS – Hazardous Materials Information System; NIOSH – National Institute for Occupational Safety and Health; MSHA - Mine Safety and Health Administration; ACGIH - American Conference of Governmental Industrial Hygienists; IDHL - Immediately Dangerous to Health or Life; TLV – Threshold Limit Value; HSE – Health and Safety Executive; REL - Recommended Exposure Limit

LAST REVISION
11/2017

SUPERSEDES
06/2015

DISCLAIMER

This document was created in accordance with OSHA, Safe Work Australia and WHMIS regulations. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MEDISCA® shall not be held liable for any damage resulting from handling or from contact with the above product. Recipients of the product must take responsibility for observing existing laws and regulations.