

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Identification of the product: Tannic acid
CAS number: 001401-55-4
EC number: 215-753-2
EC annex nr: -
REACH Registration number: Not applicable

Use: For professional use only. Food industry. Textile treatment. Pharmaceutical industry.
Anti-corrosion coatings. Restauration of reversed osmosis membranes.
Inks. Modification of super absorbents.

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture Classification conform EC 1272/2008: Not regulated. (CLP)

Main hazards: May form flammable dust-air mixture. Ignition of a flammable product - air mixture by static discharge is possible.

Primary route of exposure: Skin and eyes contact. Ingestion. Inhalation.

Adverse human health effects Inhalation: No significant signs or symptoms indicative of any adverse health hazard are expected to occur as a result of inhalation exposure.

Skin contact: Not expected to present a significant acute skin hazard under anticipated conditions of normal use. Overexposure may cause: A moderate skin irritation is possible. Possible absorption if contact with damaged skin or inflammation of the skin.

Eye contact: Not expected to present a significant acute eye contact hazard under anticipated conditions of normal use. Unlikely to be a severe eye irritant. May cause minor eye irritation.

SAFETY DATA SHEET
TANNIC ACID

Issued: 10/06/2014

Page 2

Ingestion: Not expected to present an acute significant ingestion hazard under anticipated conditions of normal use. This material may be health hazardous if ingested in large quantities. Nausea. Gastric irritation. Indication of possible influence on the liver function.

Effects on long term and repeated exposure: No information available

Fire and explosion hazards: Although no dust-explosion characteristics are known consider the product as possible dust-explosion hazard.

Labelling conform EC 1272/2008 (CLP): Not regulated.

Other dangers: The ecotoxicological properties of this material have not been thoroughly investigated.

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product is considered to be hazardous and contains hazardous components.

Substance name	Value(s)	CAS nr	EC nr	EC annex nr
Tannic acid	ca 100 %	1401-55-4	215- 753-2	-

4. FIRST AID MEASURES (SYMPTOMS)

Inhalation: Remove victim to fresh air. Place the victim in semi-seated position. Allow the victim to rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention if breathing difficulty and/or other complaints appear.

Skin contact: Rinse immediately with plenty of water, for at least 15 minutes. Remove contaminated clothing and shoes. Wash skin thoroughly with mild soap and water. Obtain medical attention if ill effect or irritation develops.

Eye contact: Rinse immediately with plenty of water, for at least 15 minutes. Obtain medical attention if pain, blinking, tears or redness persist.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth. If swallowed, give 1 pint of water if victim completely conscious/alert. Seek medical attention if ill effect develops.

Emergency medical treatment: Treat symptomatically.

See section 2: Hazards identification of this safety data sheet.

Note to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable: All extinguishing media can be used.

Not to be used: None.

Special hazards arising from the substance or mixture:

Special exposure hazards: When mixed with air and exposed to an ignition source, dust may burn in the open air or explode if confined. Under fire conditions, highly hazardous fumes will be present: CO & CO₂.

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SAFETY DATA SHEET
TANNIC ACID

Issued: 10/06/2014

Page 3

Advice for fire-fighters:

- Flammable class:** May form flammable dust-air mixture.
- Flammability (solid, gas):** No information available
- Surrounding fires:** Use water spray or fog for cooling exposed containers. Apply water spray or fog to cool nearby equipment.
- Protection against fire:** Use self-contained breathing apparatus (cfr. EN 137) and standard firefighting gear (cfr. EN 469) when in close proximity to fire. Avoid (reject) fire-fighting water to enter environment.
- Special procedures:** Exercise caution when fighting any chemical fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

- Personal precautions:** Avoid dust production. Evacuate and limit access. No smoking. Equip clean-up crew with proper protection.
- Technical measures:** -
- Environmental precautions:** Prevent entry to sewers and public waters.

Methods and material for containment and cleaning up:

- After spillage and/or leakage:** Sweep or shovel spills into appropriate container for disposal. Dilute residues and flush.
- Other sections:** See also section 8 of the SDS: Exposure controls/personal protection.
See also section 13 of this safety data sheet: Disposal considerations.

7. HANDLING AND STORAGE

- General:** No naked lights. No smoking.

Precautions for safe handling:

- Prevention:** Handle the product in closed equipment and if possible under an inert atmosphere. Sufficient local or general ventilation. Earth the equipment and take enough time to remove the electrostatic charges. Do not use compressed air to handle the product.

- Handling:** Avoid all unnecessary exposure. Do not breathe dust. Ensure prompt removal from eyes, skin and clothing. Handle in accordance with good industrial hygiene and safety procedures. Keep

away from food, drink and animal feeding stuffs. Wear suitable protective clothing.

Conditions for safe storage, including any incompatibilities:

- Storage:** May be stored at ambient temperature. Protect from low temperatures. Protect from high temperature. Store in dry, well-ventilated area. Keep container closed when not in use. Keep away from food, drink and animal feeding stuffs. Eliminate every possible source of ignition.
- Storage - away from:** Direct sunlight. Heat. Open flame. Sources of ignition. Sparks. Moisture.

Suitable packaging: The product is stored in UN certified packaging: a double PE liner, packed in a fibre drum (1G/X../S).

Specific end use(s):

Recommendations: None. [cont...]

SAFETY DATA SHEET
TANNIC ACID

Issued: 10/06/2014

Page 4

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational Exposure Limits: No information available

Exposure controls:

Industrial hygiene: Either local exhaust or general room ventilation is usually required.
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Respiratory protection: Where excessive dust may result, wear approved respirator mask.

Skin protection: Wear a coverall type 5, specific for manipulation of solids (cfr. ISO 13982-1).

Eye protection: Safety glasses.

Hand protection: Wear suitable synthetic gloves (Category 3, Class 3) resistant to chemical penetration (cfr. EN 374).

Ingestion: When using, do not eat, drink or smoke.

Others: Wear suitable safety shoes (cfr. EN 345 S2).

Recommended monitoring procedures: No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Powder.
Molecular Formula: Not applicable; the substance is a complex mixture.
Molecular weight: Not applicable.
Colour: Pale yellow.
Odour: Characteristic.
pH value: 2.5 to 4 (1 % m/V)
Melting point [°C]: ca 200 . Decomposes before melting point..
Initial boiling point [°C]: Not applicable.
Flash point [°C]: Not applicable.
Evaporation rate (ether=1): Not applicable.
Explosion limits - lower [%]: No data available.
Explosion limits - upper [%]: No data available.
Vapour pressure [mbar]: Not applicable.
Relative vapour density (air=1): No data available.

Density [g/cm³]: 0.3 to 0.5
Soluble in: Ethanol.
Acetone.
Methyl alcohol.

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SAFETY DATA SHEET TANNIC ACID

Issued: 10/06/2014

Page 5

Solubility in water: Good. (>= 50% m/V)
Log P octanol / water at 20°C: No data available.
Auto-ignition temperature [°C]: 470
Viscosity at 20°C [mPa.s]: Not applicable.

Other information:

Minimal ignition energy (mJ): No data available.
Charge relaxation time (s): No data available.
ST class: 1 Powder.
Kst value (bar.m /s): 158 Powder.
Maximum explosion pressure - 20 l: 7.7 Powder.
sphere - (bar)
Maximum rate of pressure rise - 20 l: 582 Powder.
sphere - (bar/s)

10. STABILITY AND REACTIVITY

Reactivity: No information available
Sensitivity to shock (Nm) – BAM: No information available
Fallhammer
Sensitivity to friction (N)- BAM friction: No information available
Apparatus

Chemical stability:

Stability: The product is stable if stored under the recommended storage conditions.
Thermal decomposition-stable up to (°C): 170 . Under normal atmospheric conditions.
Pyrophoric properties: Not pyrophoric.
Light stability: Under influence of light, the product may gradually darken.
Gasevolving (>10 litre gas/kg below 220°C): No information available
Gasevolution possible starting at (°C): No information available
Exothermicity-lowest temperature (°C): 170 to 180 . Weak exothermic (DSC analysis).

Possibility of hazardous reactions:

Hazardous reactions: None under normal conditions.
Hazardous properties: None under normal conditions.
Hazardous Polymerization: Will not occur.
Conditions to avoid: Moisture. Heat.

Incompatible materials:

Materials to avoid: Not known.

Hazardous decomposition products:

Thermal decomposition possible from (°C): No information available

Hazardous decomposition products: On exposure to high temperature, may decompose, releasing toxic gases.
(CO & CO₂).

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SAFETY DATA SHEET

TANNIC ACID

Issued: 10/06/2014

Page 6

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Toxicity information:

Acute toxicity:

Inhalation:	Not expected to present a significant acute inhalation hazard under anticipated conditions of normal use.
Dermal:	Not irritant.
Ocular:	Not irritant.
Ingestion:	Not expected to present an acute significant ingestion hazard under anticipated conditions of normal use.

Other:

LD50 rat oral [mg/kg]:	2260
LD50 mouse oral [mg/kg]:	5000
Dermal irritation (rabbit):	Not irritant.
Eyes irritation (rabbit):	Not irritant.
Sensitization:	No information available
Genotoxicity:	Not expected to be genotoxic.
Mutagenicity:	Not considered to be mutagenetic.
Carcinogenicity:	Not a cancer suspected agent in humans
Reproductive toxicity:	No evidence of reproductive properties.
STOT-single exposure:	No information available
STOT-repeated exposure:	No information available
Chronic toxicity:	No adverse health effects were noted.

12. ECOLOGICAL INFORMATION

Ecological effects information:

Toxicity:

On product: No quantitative data available.

Persistence and degradability: No information available

Impact on biodegradation: conc. 100 mg/l: 20% inhibition (NH₃ oxidat. by nitrosomonas sp.)
conc. 50 mg/l: 7% inhibition (NH₃ oxidat. by nitrosomonas sp.)

Biodegradation [%]: No quantitative data available.

BOD: No information available

COD: No information available

Hydrolysis: No information available

Bioaccumulative potential: No information available

Mobility in soil: No information available
Adsorption/desorption: No information available

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SAFETY DATA SHEET

TANNIC ACID

Issued: 10/06/2014

Page 7

Results of PBT and vPvB assessment:

PBT and vPvB assessment: No information available

Other adverse effects:

Adverse effects: Not known.

WGK class (Germany): 1

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Disposal: Dispose of this material and its container at hazardous or special waste collection point.
Dispose in a safe manner in accordance with local/national regulations.
Avoid release to the environment.

14. TRANSPORT INFORMATION

General information: Not regulated.
The product is transported in UN-certified packaging: a double PE bac, packed in a fibre drum (1G/X../S).

15. REGULATORY INFORMATION

Regulation EC 1907/2006 (REACH)

Annex XIV - Substances subject to authorisation: Not applicable.

Annex XVII - Substances subject to restrictions: Not applicable.

Other regulations:

European: Not applicable.

International: Not applicable.

Chemical safety assessment: Not applicable.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Revision: Revision - Change compared to previous version.

Legend to abbreviations and Acronyms: No information available

Sources for key data used: None.

Full text of the hazard statements: See section 2.2: Label elements.

Full text of the precautionary statements: See section 2.2: Label elements.

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SAFETY DATA SHEET
TANNIC ACID

Issued: 10/06/2014

Page 8

Training advice: None.

Recommended uses and restrictions: See product bulletin for detailed information.

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