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### Mon-Droguiste.Com

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# >>> Tannic Acid

# **Product data-sheet**

Tannic Acid is hydrolysable tannin suitable for industrial applications. Typical applications include boiler water treatment, anti-corrosion applications, etc... Tannic Acid is a 100 % natural material extracted from renewable plant materials using dedicated strictly controlled production facilities.

## PROPERTIES(\*)

Delivery form: Yellow brown granular powder, free of visible impurities

Odour: Slight in solution, typical tannic acid

Purity (on dry material): min 93 %) Moisture max 7 %

Density  $0.35 - 0.45 \text{ g/cm}^3$ 

Colour Gardner (1:10; alcohol): max. 13 pH (1 % in water): 2.5 - 3.5Solubility in H<sub>2</sub>O: clear

#### USAGE >>>

Due to the strong metal complexing properties of hydrolysable tannins, Tannic Acid is very effective in rust converter formulations or in boiler water treatment. An insoluble iron-tannate complex is formed with good adhesion properties on iron or steel surfaces thus preventing further corrosion.

In a typical rust converter Tannic Acid will be used in combination with phosphoric and oxalic acid (e.g. 6:4 mix ratio - pH = 3 -4). Glycols are often added to improve surface wetting. An appropriate wetting agent can also be used in order to improve the penetration of the rust converter in the rust.

When binders are incorporated in the formulation care must be taken to insure that the binder characteristics are compatible with the anionic and acidic nature of Tannic Acid

Due to its strong anti-oxidising properties Tannic Acid is also very suitable as a dissolved oxygen scavenger in boiler water treatment. pH is typically set to values in between 9 - 11.

Tannic acid also interferes in the scale formation process and instead of hard scales a fine particle size sludge is formed which can easily be removed with the boiler water when systems are drained.

In boiler water treatments dosage levels of 50 – 100 mg/l are used.

<sup>(1)</sup> Only selected data is represented here, for a full set of specifications we refer to our **Specifications** sheet.



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Due to its granular form Tannic Acid easily dissolves in cold water or even better in hot water. Solutions up to 50 % weight/volume can be prepared. However such solution are highly viscous and are especially at lower temperature more difficult to handle.

### >>> STORAGE AND HANDLING

Tannic Acid does not require special storage conditions and has a shelf life of min. 5 years if stored in a dry area in its original closed packaging. The product is not frost sensitive and normal ambient storage temperatures (i.e. 5-25°C) suffice.

Prolonged exposure of Tannic Acid to light can cause a gradual colour shift. This does not influence technical performance of the product unless colour is a critical parameter in the application. Storage of Tannic Acid open to the atmosphere can result in moisture uptake from the surroundings. Therefore reseal the inner plastic bag and keep the lid on the fibre drum if Tannic Acid is not in use.

Due to its granular form Tannic Acid produces little or no dust during handling.

## >>> PACKAGING

Tannic Acid is available as a spray-dried granular product in 25 kg or 100 lbs fibre drums lined with an inner polyethylene bag.

# >>> FURTHER INFORMATION

Further safety information is provided in our Material Safety Data Sheet.

Upon simple request a controlled copy of our **Specifications** can be provided by our QC-department.

Information on usage and applications can be found in our **Technical Leaflets**. Our R&D department can provide you further detailed information on composition and regulatory status.

Deliveries are accompanied by a Certificate of Analysis.

CAS Nr.: 1401-55-4

**EINECS/ELINCS: 215-753-2**