

Tanex 31

>>> Tannic Acid Tanex 31 Product data-sheet

Tanex 31 is a blended low to medium molecular weight hydrolysable high quality tannic acid suitable for technical applications, with a relatively pale colour.

Tanex 31 is a 100 % natural material extracted from renewable plant materials using dedicated strictly controlled production facilities. No synthetic preservatives or additives are used in the production of Tanex 31.

>>> PROPERTIES^(*)

▪ Delivery form:	yellow brown granular powder, free of visible impurities
▪ Odour:	slight in solution, typical tannic acid.
▪ Purity (on dry material):	min. 94 %
▪ Moisture:	max. 7 %
▪ Density:	0.35 – 0.45 g/cm ³
▪ pH (1 % in water):	2.5 – 3.5
▪ Colour Gardner (1:10; alcohol):	max. 11
▪ Solubility in H ₂ O:	clear

^(*) Only selected data is represented here, for a full set of specifications we refer to our **Specifications** sheet.

>>> USAGE

Tanex 31 is widely applicable in technical applications such rust converters, water treatment, etc... It can basically be used in the same applications as Tanex 40 but is slightly less acidic, has a higher average molecular weight and a paler colour.

Due to the strong metal complexing properties of hydrolysable tannins, Tanex 31 is very effective in rust converter formulations or in boiler water treatment. On iron surfaces an insoluble iron-tannate complex is formed with good adhesion properties on the iron or steel surfaces thus preventing further corrosion.

In a typical rust converter Tanex 31 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 Tanex 31.

Due to its strong anti-oxidising properties Tanex 31 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.

Tanex 31 easily dissolves in water or even better in hot water (e.g. 60°C). Solutions up to 50 % (m/V) can be prepared. However such solutions are viscous and can be difficult to handle. In practice Tanex 31 is often added as a 5 – 10 % (m/V) solution.

High amounts of dissolved iron or copper will cause formations of resp. dark blue or brown tannic acid-metal complexes, and should therefore be avoided.

>>> STORAGE AND HANDLING

Tanex 31 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 temperatures (i.e. 5-25°C) suffice.

Prolonged exposure of Tanex 31 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 Tanex 31 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 Tanex 31 is not in use.

Due to its granular form Tanex 31 produces little or no dust during handling.

>>> PACKAGING

Tanex 31 is available as a spray-dried granular product in 25 kg 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**.

The information provided in this product data sheet is based on the present state of our knowledge. Some of the applications mentioned in this document are protected by patent law. Ajinomoto OmniChem nv/sa cannot be held responsible for patent law infringements and the customer should contact the patent holder if so required. Due to the many process parameters involved we are not able to submit a general recommendation. It only shows without liability on our part the uses to which our products can be put. However, Ajinomoto OmniChem nv/sa cannot be held responsible for the consequences of the application of the above described product.