

TANALITH® E

1.0 Description

1.1 Active ingredients: 16.1% w/v (12.4% w/w) copper (Cu) present as a cupric carbonate ethanolamine complex and 0.64% w/v (0.50% w/w) tebuconazole.

1.2 Formulation: Aqueous based solution concentrate, which forms a stable solution when mixed with water.

1.3 Appearance: Concentrate is a dark blue viscous liquid with an ammonia odour. Diluted solution is an opaque blue liquid with a faint ammonia odour

1.4 Density: 1.3 g/mL @ 20°C

1.5 pH 9.5 (5% w/v product solution)

2.0 Function

Tanalith® E is a water-soluble, chromium and arsenic free wood preservative designed for industrial application using a purpose-built vacuum/pressure treatment plant. Use of pressure treatment allows the preservative to be forced deep into the wood to give long lasting protection against insects (such as borers and termites) and decay fungi.

Tanalith® E has been approved by ERMA as an industrial use wood preservative. Tanalith® E contains copper, an element widely recognised for its fungicidal properties as well as providing protection against termites and other insects. The additional co-biocide tebuconazole is a modern triazole type fungicide compound which provides protection against a wide range of decay fungi.

3.0 Directions for Use

3.1 Preparation of the Treatment Solution

Tanalith® E is diluted with water to an appropriate concentration for the hazard class intended for the timber product and the process used for treatment. The following are recommended target retentions for Tanalith® E for Radiata pine used in New Zealand and Australia:

Preservative Retention Guide:

	Minimum sample retention as Cu + tebuconazole (see NZS3640)	Recommended charge retention as Cu + tebuconazole (see note below)
H3.2	0.23% m/m	1.4 kg/m ³
H4	0.42% m/m	2.5 kg/m ³
H5	0.76% m/m	4.5 kg/m ³

Note: the above figures are given for guidance only based on a dry timber density of 450 kg/m³, an over-treatment safety factor of 33% and 100% of the wood being treatable volume. Adjustments to charge retention may be possible or necessary with different timber properties and treatment processes.

The Tanalith® E concentrate may separate into distinct phases in storage. When making the treatment solutions use whole containers at a time or ensure that the concentrate is thoroughly mixed before transferring a volume out of the container. If possible it is recommended to have a pre-mix solution tank where the product is initially diluted. Typically the recommended pre-mix solution is 1 part of concentrate to 3 parts of water.

3.2 Preparation of Timber

Timber to be treated should be clean, dry and free of decay and insect attack. Sawn Radiata pine should be either air or kiln dried to less than 20% moisture content, prior to treatment. For round wood (posts, piles, poles) it is possible to treat steamed wood although APM (alternating pressure method) is not recommended. Consult Lonza for specific advice in these cases and for the treatment of other species.

3.3 Treatment of Timber

As a variety of treatment processes are used commercially, you should seek specific details from your Lonza technical representative. Use of Bethell (full cell) or Tanalith® Dry (modified full cell) type schedules is normally recommended. Other more extreme schedules may be possible in certain circumstances. Consult your Lonza technical advisor for further details.



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After treatment, timber must be held on a sealed drip-pad until all dripping ceases. Collected drip should be returned to the treatment plant for re-use. Avoid cross contamination with drip collected from CCA treated wood as this may contribute to sludge formation.

3.4 Plant and Engineering Requirements

Tanalith® E is suitable for use in normal vacuum pressure impregnation plants with little or no modification. The solution is corrosive to brass and other copper alloys so any yellow metal components may need to be changed to stainless steel. While it is possible to operate both Tanalith® E and CCA in the one facility, specific engineering modifications and operation procedures are required to prevent cross contamination as the solutions are not compatible. Consult your Lonza technical advisor for further details.

3.5 Other Recommendations

It is recommended to hold timber for at least 2 days after treatment before kiln drying. Kiln re-drying schedule should be moderate only (60°/90° max). Sawdust and shavings from the treated wood or filtered from treatment solutions should be disposed of to landfill. Do not burn offcuts and waste in domestic fires or barbecues. Burning of these wastes in industrial facilities may require specific consents.

Use of Tanalith® Antimould additive in the treatment solutions is strongly recommended. The product is formulated with an anti-foam additive. However for plants with very rapid rates of solution transfer additional anti-foam agent may need to be added directly to the solutions. Colouring and water repellent additives are also available. Consult your Lonza technical advisor for further details. Do not mix any other chemicals with Tanalith® E without first consulting Lonza.

4.0 Safety and Handling

4.1 General

Tanalith® E concentrate is harmful if swallowed, and may be irritating to eyes and skin. Use of appropriate personal protective equipment, sensible work clothing and work practices are

important to ensure the safe use of this product. A detailed Material Safety Data Sheet is available for further information.

5.0 Transport and Storage

5.1 Transport

UN Number. 3010, Copper based pesticide, liquid, toxic. DG Class 6.1 Packaging Group III. Consult the MSDS for further information.

5.2 Storage

Store the concentrate in secure bunded areas in the original containers or purpose built tanks (polyethylene or stainless steel only). Protect all concentrate from freezing. Prevent any contact with acids or oxidizing materials. The diluted product can be stored in mild steel or polyethylene tanks conforming to the Hazardous Substances regulations schedule 8 controls for stationary container systems. Brass or aluminium fittings should be avoided.

5.3 Spills and Disposal

Contain spillage with sand, sawdust or other suitable absorbent. Prevent the spill entering drains or waterways. Pump any recoverable liquid into suitable containers for re-use or disposal. Absorb residue with sawdust or other absorbent and collect for disposal by way of an approved landfill.

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