

## TANALITH® Eμ Wood Preservative

### 1.0 Description

1.1 Active ingredients: 25% w/w (38.5% w/v) copper (Cu) present as micronised basic cupric carbonate and 1% w/w (1.54% w/v) tebuconazole.

1.2 Formulation: Aqueous based micronised dispersion concentrate, which forms a stable dispersion when diluted with water.

1.3 Appearance: Concentrate is a green free flowing liquid with a creamy consistency. Diluted solutions are turbid green with a faint odour

1.4 Density: 1.54 – 1.56 g/mL @ 20°C

1.5 pH 8 - 9

### 2.0 Function

Tanalith® Eμ is a latest generation dispersed copper based 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® Eμ has been approved by NZ EPA as an industrial use wood preservative. Tanalith® Eμ contains copper in the form of a micronised dispersion of copper carbonate which provides protection against decay fungi, 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® Eμ is diluted with water to an appropriate concentration for the hazard class intended for the timber product and the process used for treatment. Note that the active copper is present as a very finely dispersed suspension rather than a solution so the treatment solution requires on going agitation. The following are recommended target

retentions for Tanalith® Eμ for Radiata pine used in New Zealand and Australia:

#### Preservative Retention Guide:

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

Note: the above figures are given for guidance only based on a dry timber density of 450 kg/m<sup>3</sup>, 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® Eμ concentrate and dilutions will settle during prolonged storage. When making the treatment solutions use whole containers of the concentrate at a time into a pre-mix dilution or ensure that the concentrate is thoroughly mixed before transferring a volume out of the container. All tanks used for Tanalith Eμ dilutions will require agitation to ensure that the dispersed ingredients remain evenly distributed throughout the treatment fluid. Water quality such as hardness or other contaminates such as iron may be important for stability of the product dilutions. Consult with Lonza regarding water quality testing for specific sites.

#### 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



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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 schedules may be possible in certain circumstances. Consult your Lonza technical advisor for further details.

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 or boron 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 diluted product has low corrosion however it is recommended to avoid use of brass and other copper alloys. Generally it is not recommended to operate both CCA and Tanalith® Eμ in the one facility. Specific engineering modifications and strict operation procedures are required to prevent cross contamination as the solutions are not compatible. Consult your Lonza technical advisor for further details.

### 3.5 Solution Quality Control

Correct solution quality control of the treatment solution is important for treatment with Tanalith® Eμ. Consult with Lonza for details of test kits and methods required.

### 3.6 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® Eμ without first consulting Lonza.

## 4.0 Safety and Handling

### 4.1 General

Tanalith® Eμ 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. 3082, Environmentally hazardous substance, liquid, N.O.S. DG Class 9, 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. Protect the product and dilutions from freezing.

### 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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