

TANALITH® C OXIDE

1.0 Description

1.1 Active ingredients:

115.5% w/v Copper chromium arsenic (CCA) oxides expressed as $\text{CuO} + \text{CrO}_3 + \text{As}_2\text{O}_5 \cdot 2\text{H}_2\text{O}$. Equivalent to 67.0% w/v minimum TAE (Total Active Elements - Cu+Cr+As).

1.2 Elemental content proportion balance:

Cu : Cr : As – 23.5% : 41% : 35.5% respectively

1.2 Formulation:

Aqueous solution of constituents present as cupric oxide, chromic oxide and arsenic acid.

1.3 Appearance:

Dark brown solution with slight acid odour

1.4 Density:

1.84 kg/L @ 20°C

2.0 Function

Tanalith® C Oxide is an ERMA registered wood preservative designed for industrial application only using a purpose-built vacuum/pressure treatment plants operating under appropriate consent. Use of pressure treatment process and equipment allows the preservative to be forced deep into the wood to give long lasting protection and controls risk to the environment.

The Tanalith® C Oxide formulation is composed of copper, chromium and arsenic (CCA), in conformance with preservative standards as per NZS3640.

The Tanalith® C Oxide active ingredients react in contact with wood to form insoluble compounds that resist leaching. This provides Tanalith® C Oxide treated timber with high levels of resistance to attack by insects, marine borers and decay fungi even in severe situations such as ground contact or fresh or seawater immersion.

3.0 Directions for Use

3.1 Preparation of Treatment Solution

Tanalith® C Oxide is diluted with water to an appropriate concentration for the Hazard Class, treatment process and timber to be treated.

The following are recommended target retentions for Tanalith® C Oxide in Radiata pine for New Zealand use:

Preservative Retention Guide:

Hazard Class as per NZS3640	Minimum sample retention as %m/m TAE (see NZS3640)	Recommended charge retention, kg/m ³ (see note below)
H3.2	0.37	3.6
H4	0.72	7.0
H5	0.95	9.4
H6	0.40 (as Cu only)	20.0

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

3.2 Preparation of Timber

Timber to be treated should be free of decay, insect attack and excessive dirt and bark. Radiata pine should either be dried below the fibre saturation point (preferably less than 20% moisture content) or be steam conditioned to an approved schedule prior to treatment. Where possible the timber components should be in their final shape and form. Contact Lonza for specific advice on the treatment of other species.

3.3 Treatment of Timber

Use of Bethell (full cell) or Tanalith® Dry (modified full cell) type schedules are normally recommended. As a variety of treatment processes are used commercially, you should seek specific details from your Lonza technical representative. After treatment, timber must be held on a sealed drip-pad until all dripping ceases. Collected drip shall be returned to the treatment plant for re-use.

Accelerated fixation processes may be used on freshly treated timber to hasten the fixation reaction between CCA and timber. This has the



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benefit of allowing the timber to be despatched off site rapidly after processing. Refer to NZTPC Best Practice Guidelines for further information.

3.4 Other Recommendations

Sawdust and shavings from CCA treated wood and redundant wood pieces should be disposed of by way of landfill. Do not burn CCA treated wood wastes as toxic fumes and residues may be produced. Do not use shavings for garden mulch or animal bedding. Contact Lonza for advice for disposal of any CCA chemical waste or sludge.

Do not mix Tanalith® C Oxide with any other chemicals without first seeking advice from Lonza.

3.5 End Use Considerations

CCA treated wood is not permitted for use in certified organic farming. There may also be restrictions on use of CCA for treatment of certain timber commodities in certain overseas jurisdictions (such as for decking in Australia). Consult Lonza for further information.

4.0 Safety & Handling

4.1 General

Tanalith® C Oxide concentrate is both toxic and corrosive. Use of correct personal protective equipment, appropriate work clothing and work practices are important to ensure the safe use of this product. A Material Safety Data Sheet is available from Lonza for further information and should be reviewed before using the product.

4.1 Tracked Substances

Tanalith® C Oxide concentrate is a tracked substance under new Worksafe hazardous material regulations. In order to deliver Tanalith® CCA, Lonza are required to hold a current copy of the site's approved handler certificate.

5.0 Transport & Storage

5.1 Transport

Hazchem Code 2XE, UN No. 2994, Arsenical pesticides, liquid, toxic. Packaging Group III.

Tanalith® CCA Oxide is a Class 6.1 Harmful Substance.

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). Prevent any contact with organic materials or reducing agents. The diluted product may be stored in mild steel tanks conforming to Hazardous Substances regulations schedule 8. 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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