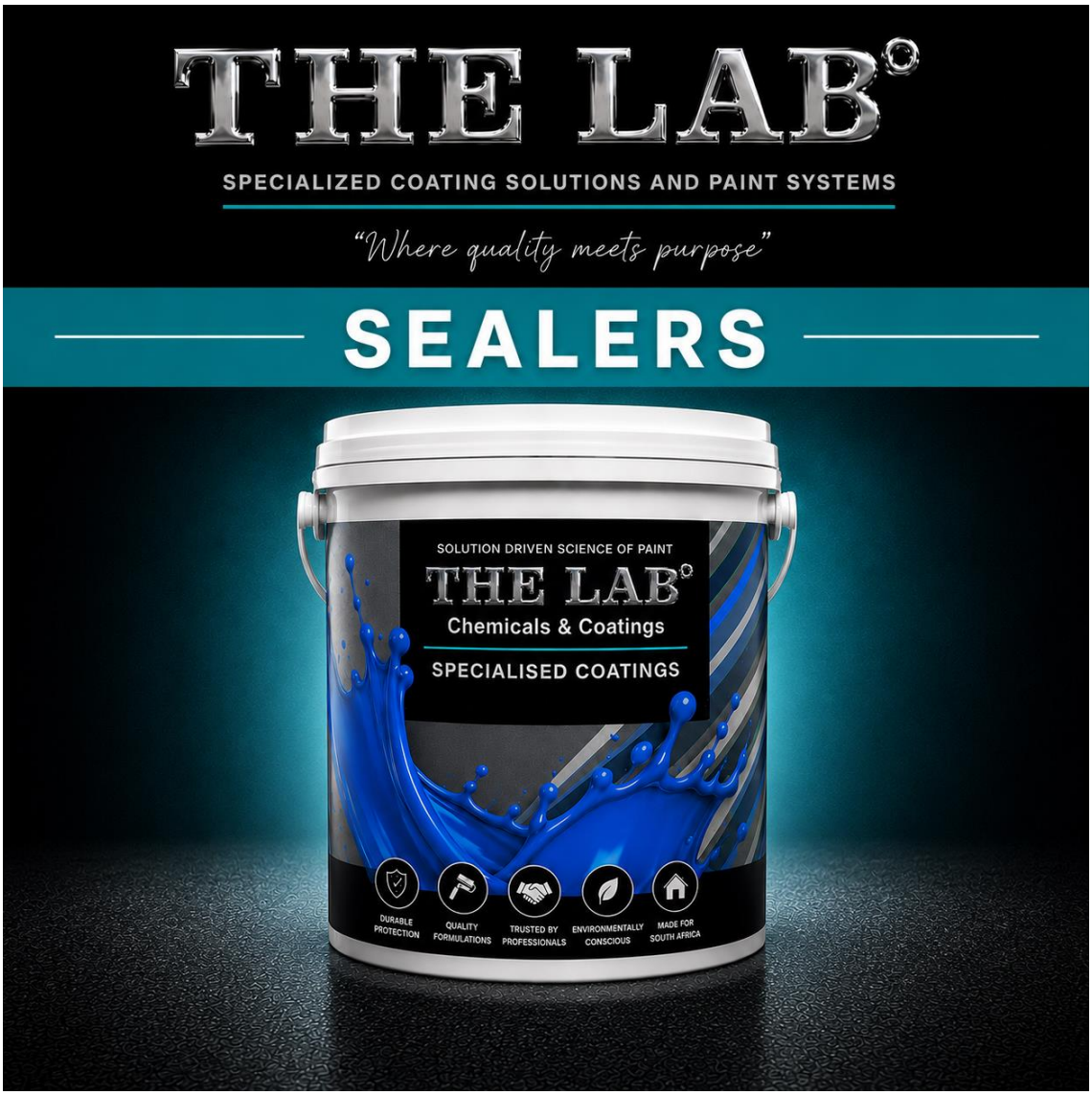
THE LAB®

Chemicals & Coatings



Technical and Material Safety Data Sheet

Version: 2026

THE LAB BIO GUARD SOLVENT

THE LAB BIO-GUARD (SOLVENT BASE)
Product Family: Sealers (Modified Alkyd Exterior Wood Varnish)

Typical System Guidance

Typical Exterior Wood Protection System

1. Inspect the timber and ensure it is clean, dry, sound and suitable for coating.
2. Remove all oil, grease, dirt, wax, old loose coatings and other contaminants.
3. Sand the timber in the direction of the grain to achieve a smooth, uniform surface.
4. Remove all sanding dust before application.
5. Seal knots and fill surface imperfections where required.
6. On new bare timber, apply the first coat of **THE LAB BIO-GUARD** thinned 3 parts BIO-GUARD to 1 part The Lab Enamel Thinner by volume**.**
7. Allow the first coat to dry for approximately 16 hours.
8. Apply subsequent coats as supplied, or thin by up to 10% with The Lab Enamel Thinner where required for application.
9. Apply a minimum of 3 coats to new timber.
10. Lightly sand between coats with approximately 320-grit sandpaper, remove dust and continue with the next coat.

Particular attention must be given to adequately sealing the end grain of exterior timber.

Product Description

THE LAB BIO-GUARD (SOLVENT) is a clear, tough and durable modified alkyd coating specifically formulated for exterior timber applications.

It provides a durable gloss protective finish and is suitable for use as a general-purpose exterior varnish on correctly prepared woodwork and wooden decks.

BIO-GUARD is available clear and in various colours and is formulated to provide protective and decorative performance on timber exposed to exterior conditions.

Technical Data Summary

Property	Typical Value
Product Type	Solvent-Based Exterior Wood Varnish
Binder Type	Modified Alkyd
Finish	Gloss
Colour Range	Clear / Various Colours
Solids by Mass	+/- 60%
Solids by Volume	+/- 52%
Viscosity @ 23°C	70 KU (Typical)
Specific Gravity @ 23°C	0.96 kg/L (Typical)
Flash Point	36°C
Theoretical Coverage	10–12 m²/L per coat @ 20 µm DFT*
Recommended DFT	20 µm per coat
Recommended Coats	Minimum 3 coats on new timber
Touch Dry	6 hours @ 23°C
Recoat	16 hours @ 23°C
Dry to Handle	16 hours @ 23°C
Full Cure	Not specified
Application Method	Brush / Conventional Spray
Thinner	The Lab Enamel Thinner
Clean Up	The Lab Bio-Solve
Minimum Application Temperature	10°C
Maximum Application Temperature	40°C
Maximum Relative Humidity	85%
Dew Point Requirement	Surface minimum 2°C above dew point
Packaging	1L / 5L / 20L

*Theoretical coverage is a guide only. Practical spreading rate will vary according to substrate porosity and profile, application technique and equipment.

Intended Uses

THE LAB BIO-GUARD is recommended for suitably prepared exterior timber, including:

- Exterior woodwork

- Wooden decks
- Timber doors
- Timber window frames
- Exterior timber trim
- Timber balustrades
- Timber railings
- Other suitably prepared exterior wooden surfaces

Principal Characteristics

- Modified alkyd technology
- Tough and durable protective coating
- Gloss finish
- Specifically formulated for exterior use
- Suitable for timber and wooden decks
- Available clear and in various colours
- Good solids content
- Suitable for brush or conventional spray application
- May be used as a general-purpose exterior wood varnish
- Provides decorative and protective performance

Limitations

THE LAB BIO-GUARD should not be applied:

- To damp timber or damp surfaces.
- To dirty, oily, greasy or contaminated substrates.
- Over wax, oil-based wood preservatives or existing coatings that have not been completely and correctly prepared.
- In dusty environments.
- Below 10°C or above 40°C.
- Where relative humidity exceeds 85%.
- Where the substrate temperature is less than 2°C above the dew point.
- Where adequate ventilation cannot be provided during application and drying.
- Near open flames, sparks or other ignition sources.

Exterior timber exposed to severe climatic conditions and unusual weather may require re-varnishing every 1–2 years to prevent substrate degradation.

Surface Preparation

All surfaces must be clean, dry and sound. Remove oil, grease, mortar droppings and all contaminants before coating.

New Wood:

Sand in the direction of the grain to a smooth finish using approximately 150-grit sandpaper.

Remove all sanding dust before application.

Previously Varnished Wood – Good Condition:

Sand the existing varnish thoroughly to create a suitable mechanical key.

Remove all sanding dust.

Previously Varnished Wood – Poor Condition:

Completely remove the existing varnish by deep sanding.

Prepare until no evidence of the previous coating remains within the grain.

Remove all dust before coating.

Wood Previously Treated with Wax Sealer or Oil-Based Wood Preservative:

Mechanically sand until there is no evidence of the previous treatment or residue.

Remove all sanding dust.

Previously Painted Wood:

Remove the existing paint completely by deep sanding.

Sand the exposed timber to a smooth finish and remove all dust.

Discoloured or Weathered Wood:

Remove the discoloured or weathered surface layer using approximately 100-grit sandpaper**.**

Continue sanding to produce a smooth, sound timber surface.

Remove all sanding dust.

Knots

Apply a suitable wood sealer to knots before coating.

Filling

Where required, use a suitable wood filler and sand smooth before applying BIO-GUARD.

Application Guidelines

Stir **THE LAB BIO-GUARD** thoroughly with a flat paddle until completely homogeneous before and during application.

Apply by:

- Brush
- Conventional spray

New Timber – First Coat:

Thin:

3 parts **THE LAB BIO-GUARD**: 1 part THE LAB Enamel Thinner by volume

Apply by brush and allow approximately 16 hours drying time.

Subsequent Coats:

Apply **BIO-GUARD** as supplied.

Where required for ease of application, subsequent coats may be thinned by up to:

10% THE LAB Enamel Thinner:

Apply a minimum of 3 coats to new timber.

Lightly sand between coats using approximately 320-grit sandpaper to de-nib the surface.

Remove all sanding dust before applying the subsequent coat.

Do not apply in dusty conditions.

Exterior Timber Protection:

Exterior timber requires careful detailing to achieve satisfactory long-term performance.

Ensure that:

- End grain is thoroughly sealed and coated.
- All exposed faces and edges receive adequate coating.
- Damaged coating areas are repaired before moisture can penetrate the timber.
- Exterior timber is inspected periodically for deterioration.

The original specification recommends that timber exposed to severe climatic conditions should be re-varnished every 1–2 years to help prevent substrate degradation.

Parameter	Requirement
Minimum Surface Temperature	10°C
Maximum Surface Temperature	40°C
Minimum Ambient Temperature	10°C
Maximum Ambient Temperature	40°C
Maximum Relative Humidity	85%
Dew Point	Substrate minimum 2°C above dew point

Do not apply to damp surfaces or where condensation may occur during application or drying.

Storage

Store **THE LAB BIO-GUARD** in its original, tightly sealed container in a cool, dry and well-ventilated area.

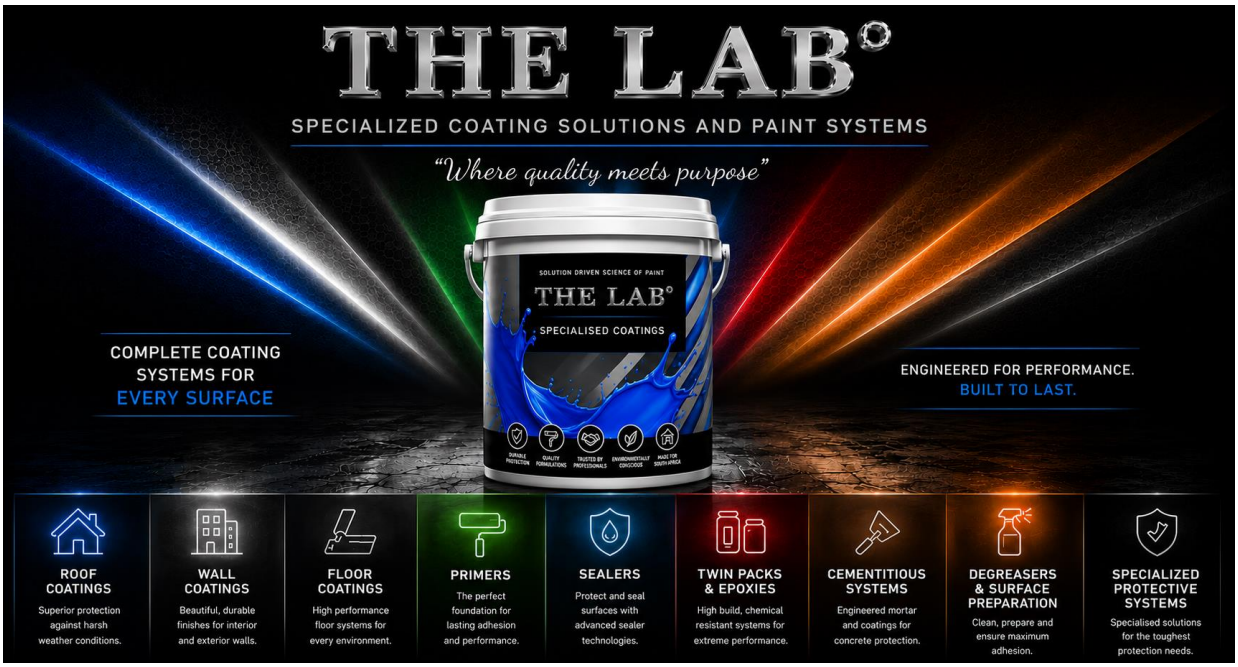
Protect from:

- Direct sunlight
- Heat
- Sparks
- Open flames
- Other ignition sources
- Severe cold

Keep containers tightly closed when not in use.

Keep out of reach of children.

The product is **flammable**, with a stated flash point of 36°C.



Technical Advisory, Specification Support and Disclaimer

The technical information, recommendations, specifications and system guidance contained in this document are provided in good faith and are based on laboratory testing, field experience and current product knowledge available at the date of publication. Such information is intended solely to assist specifiers, contractors, applicators and end users in selecting and applying suitable coating systems and does not relieve any party from independently assessing product suitability for the intended application and site conditions.

The performance of any coating system is materially dependent upon factors beyond the control of **The Lab Chemicals & Coatings**, including but not limited to correct substrate assessment, cleaning and decontamination procedures, surface preparation, substrate condition, moisture content, environmental conditions, product storage and handling, mixing procedures where applicable, film thickness achievement, adherence to specified system build requirements, application techniques and ongoing maintenance practices.

Failure to strictly follow the instructions, specifications, limitations and recommendations contained within this Technical Data Sheet, associated specifications, written recommendations or supplementary documentation may adversely affect product performance and may invalidate performance expectations, warranties or related claims.

Users are strongly advised to conduct suitability trials and test applications under actual site conditions prior to full-scale application.

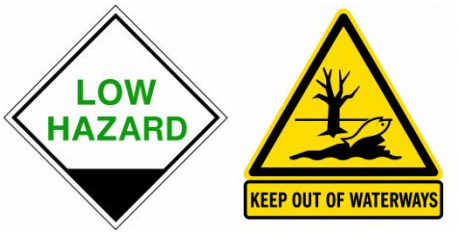
To the best of our knowledge, the information contained herein is true and accurate at the date of issue and remains subject to change without prior notice. Users are advised to contact **The Lab Chemicals & Coatings** prior to specification or ordering to ensure that the correct product and system are selected for the intended application.

No guarantee, representation or warranty is given or implied regarding the completeness or suitability of information contained herein. Technical recommendations and advice do not constitute a performance guarantee unless expressly confirmed in writing by an authorised representative of **The Lab Chemicals & Coatings**.

The Lab Chemicals & Coatings accepts no responsibility or liability for product failure, defects, damage, consequential losses, injuries or unsatisfactory performance arising from incorrect substrate preparation, unsuitable application conditions, deviation from specified system requirements, misuse, unauthorised product modification, incorrect application methods or use outside documented recommendations. Liability, if any, shall be limited solely to replacement of proven defective product.

The above information must be read in conjunction with the General Terms and Conditions of The Lab Chemicals & Coatings (Pty) Ltd, available at www.thelabcc.co.za or upon request.

Material Safety Data



SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION – BIO GUARD SOLVENT
CAS no. : N/A EC no. : N/A UN No. : 1263 Hazchem: 3[Y] SAPMA: 2-H-E
In emergency contact: The Lab Chemicals & Coatings @ 0845071767

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS
EC Classification: Not classified as hazardous

SECTION 3. HAZARDS IDENTIFICATION
SAPMA Health Rating: 4-MODERATE - Temporary or minor injury possible even if treatment given
Inhalation: Irritating, narcotic. Can affect CNS.
Skin: HARMFUL BY CONTACT.
Eyes: Highly Irritating and risk of irreversible damage.
Ingestion: Harmful. May cause lung damage if swallowed.
No carcinogenic, mutagenic or genetic effects established
May have short term environmental effects. Contain, monitor & remove.

SECTION 4. FIRST AID MEASURES
Inhalation: Move to fresh air. In case of discomfort seek medical attention.
Skin: Use hand cleaner/soap & water. Remove contaminated clothing. If any discomfort get medical attention
Eyes: ACT FAST! Rinse immediately with plenty of water. Refer immediately to Doctor.
Ingestion: DO NOT INDUCE VOMITING. Get immediate medical attention.

SECTION 5. FIRE FIGHTING MEASURES
Flammable with toxic fumes.
Containers can burst in a fire. Can form explosive vapour/air mixture. Static discharge hazard!
Foam. CO2. Dry powder. Fog to cool and control. Do NOT use water jets.
Cool containers in case of fire. **Flash Point: 36°C** elsewhere

SECTION 6. ACCIDENTAL RELEASE MEASURES - SEE ALSO SECTIONS 5, 8, 13
Contain & collect. Use an inert - NOT sawdust. Keep out of drains & sewers. store cool/dry, away from **direct sun, heat, sparks and severe cold**.

SECTION 7. HANDLING AND STORAGE
Store separately from any reactive substances - oxidisers in particular.
No open flames. No smoking.
Keep containers cool. Avoid free fall of liquid - use earthing.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
SAPMA Rating: 2-H-E PPE: Respirator and Eye protection
Inhalation: In case of insufficient ventilation, use suitable respiratory protection.
Skin: Avoid direct contact. Use barrier cream and impervious gloves.
Eyes: Use goggles. Avoid direct contact.
Ingestion: Observe the rules of hygiene. Wash before eating or drinking.
OEL Type: Mix- Mixture - See Section 2

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Chemical class: PAINT Description: Viscous liquid Smell: Pungent
Boil. pt (C): >35
FlashPoint (C): > 36
Modified Alkyd, clear/various colours, SG **0.96 kg/L**, viscosity **70 KU**, solids **60% mass / 52% volume**.

SECTION 10. STABILITY AND REACTIVITY
Stable under normal conditions
Could generate static - USE EARTHING
Inert - no reaction with fire-fighting water

SECTION 11. TOXICOLOGICAL INFORMATION
No carcinogenic, mutagenic or genetic effects established

SECTION 12. ECOLOGICAL INFORMATION
May have short term environmental effects. Contain, monitor & remove.

SECTION 13. DISPOSAL INFORMATION
Dispose through an approved/reputable waste contractor and prevent discharge to drains or waterways. The source supports reputable waste disposal contractors.

SECTION 14. TRANSPORT INFORMATION
UN no: 1263 Packing group: III IMO Class: 3.3
Hazchem: 3[Y]

SECTION 15. REGULATORY INFORMATION
EC no. : N/A Contains: WHITE SPIRIT<0.1% BENZ (WS3)
EC Classification: - Xn R10,65 S02,13,43A,62
R10 - Flammable
R65 - Harmful: May cause lung damage if swallowed.
S2 - Keep out of reach of children. (Retail sales items)
S13 - Keep away from food, drink and animal feeding stuffs
S43A - In case of fire, use water fog, foam or powder - Do not use water jets!
S62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

SECTION 16. OTHER INFORMATION
TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.
IN CASE OF ANY DISCOMFORT ALWAYS SEEK MEDICAL ADVICE.

This MSDS conforms to General Administrative Regulations of 6 Sept.1996 (ISO-11014/ANSIZ400.1.1996)
OELs derived from OHS Act Regulations for Dangerous Chemical Substances of 25 Aug.1995 (EH-42)
SAPMA Rating - South African Paint Manufacturers Association Guide to Health Hazards (SABS ARP 006:1991) All information is given in good faith but without guarantee in respect of accuracy. No responsibility is accepted for errors or omissions or the consequences thereof.