

THE LAB[®]

Chemicals & Coatings



Technical and Material Safety Data Sheet

Version: 2026



BIO STEEL

BIO-STEEL

Product Family: **Primers** (Metal Protection Primer)

Typical System Guidance

Typical coating system:

- 1 Surface cleaning with **THE LAB PREP**
- 2 Apply **BIO-STEEL Primer**
- 3 Apply suitable **THE LAB topcoat system**, e.g. **BIO SEAL AND BIO ROOF**

For aggressive environments such as coastal or industrial areas additional protective coats may be required. Routine inspection and maintenance is recommended to maintain long-term coating performance.

Product Description

BIO-STEEL is a high-performance anti-corrosion metal primer formulated to protect steel and other ferrous substrates against rust and environmental degradation. The coating incorporates specialised anti-corrosive pigments that inhibit oxidation and prevent the development of rust on both new and weathered metal surfaces.

The primer penetrates and stabilises lightly corroded surfaces while creating a durable protective barrier that prevents further corrosion. **BIO-STEEL** improves adhesion of subsequent topcoat systems and provides long-lasting protection against moisture, weathering and atmospheric exposure.

The product is suitable for use on steel infrastructure, industrial equipment and metal roofing where reliable corrosion protection and coating adhesion are required.

Technical Data Summary

Colour	Black / Modern Red
Finish	Low Sheen
Binder Type	Pure Acrylic
Volume Solids	+/- 51 %
Specific Gravity	+/- 1.33 kg/L
Application Method	Brush / Roller / Spray
Recommended DFT	+/- 85 microns
Recommended DFT	+/- 40 microns
Surface Temperature Limits	10 – 13 °C
Relative Humidity Limits	< 50°C
Touch Dry	+/- 60 minutes
Recoat Time	+/- 2 hours depending on topcoat
Coverage	+/- 8-10 m ² /L theoretical
Clean Up	Water
VOC	Low VOC typical of water-based acrylic coatings
Shelf Life	+/- 12 months when stored under correct conditions

These values are typical laboratory results and serve as a guide only. Practical coverage will vary depending on surface profile, porosity and application method.

Intended Uses

BIO-STEEL is intended for priming and corrosion protection of metal substrates including mild steel, galvanised steel and other ferrous metals.

Typical applications include metal roofing sheets, structural steel, machinery, rail infrastructure, metal frames, fences and general industrial steel structures.

The coating improves adhesion of compatible topcoats and provides a stable protective base layer.

Not recommended for permanently submerged surfaces or areas subject to continuous water exposure.

Principal Characteristics

- Excellent adhesion to metal surfaces
- Strong corrosion protection
- Fast drying primer system
- Improves adhesion of subsequent coatings
- Compatible with a wide range of topcoat systems

- Good durability and weather resistance
- Suitable for interior and exterior use

Surface Preparation

All surfaces must be clean, dry and free from grease, oil, dust and loose contaminants prior to application.

Remove loose rust, scale and deteriorated coatings by wire brushing, sanding or mechanical preparation. Degrease surfaces using **THE LAB PREP** and rinse thoroughly with clean water.

Previously painted surfaces should be sanded to a matt finish to ensure proper adhesion.

Application Guidelines

BIO-STEEL may be applied by brush, roller or airless spray equipment.

Apply a single coat to achieve uniform coverage and durability.

Prior to application, always follow these basic product checks:

- Inspect packaging and ensure containers are sealed, undamaged and within shelf-life
- Open product and visually inspect for abnormalities, contamination, skinning or separation
- Stir product thoroughly before and during use where required
- For multi-component products, ensure correct mixing ratios and induction periods are followed
- Confirm substrate condition, moisture levels and environmental conditions are suitable
- Conduct a small test patch to confirm adhesion, appearance and compatibility prior to full application

Do not apply coatings when:

- Ambient temperature is below 10°C
- Rain is imminent
- Surfaces are wet or contaminated

Ensure recommended spreading rates are maintained to achieve correct film thickness. Allow adequate drying time between coats.

Storage

Store in original sealed containers in a cool, dry and well-ventilated environment away from direct sunlight and extreme temperatures.

Keep containers tightly closed when not in use. Shelf life is approximately **12 months** under correct storage conditions.

THE LAB[®]

SPECIALIZED COATING SOLUTIONS AND PAINT SYSTEMS

"Where quality meets purpose"



COMPLETE COATING
SYSTEMS FOR
EVERY SURFACE

ENGINEERED FOR PERFORMANCE.
BUILT TO LAST.



ROOF COATINGS

Superior protection
against harsh
weather conditions.



WALL COATINGS

Beautiful, durable
finishes for interior
and exterior walls.



FLOOR COATINGS

High performance
floor systems for
every environment.



PRIMERS

The perfect
foundation for
lasting adhesion
and performance.



SEALERS

Protect and seal
surfaces with
advanced sealer
technologies.



TWIN PACKS & EPOXIES

High build, chemical
resistant systems for
extreme performance.



CEMENTITIOUS SYSTEMS

Engineered mortar
and coatings for
concrete protection.



DEGREASERS & SURFACE PREPARATION

Clean, prepare and
ensure maximum
adhesion.



SPECIALIZED PROTECTIVE SYSTEMS

Specialised solutions
for the toughest
protection needs.

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 and The Lab George (Pty) Ltd, available at: www.thelabcc.co.za or upon request.

Material Safety Data



SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

CAS no. : N/A

EC no. : N/A

UN No. : 1263 SAPMA: 4-H-C

In emergency contact: The Lab Chemicals & Coatings @ 0845071767

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

EC Classification: Not classified as hazardous

No significant quantity of classified hazardous substances present.

(CL/RL = Controlled/Recommended level 'S' = Skin annotation)

SECTION 3. HAZARDS IDENTIFICATION

SAPMA Health Rating: 4-MINIMAL - No great risk to health

Inhalation: Avoid exposure to vapours, fumes and mists.

Skin: No hazard expected if used in moderation.

Eyes: No direct hazard is expected but possible contact with any chemical must always be avoided.

Ingestion: Irritating and nauseating.

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.

Skin: Always wash after handling chemical substances.

Eyes: In case of any contact and discomfort rinse well with water and seek medical advice.

Ingestion: Wash mouth with plenty of water. Do NOT induce vomiting. Seek medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Dried residues - combustible with toxic fumes.

No direct explosion hazard expected.

SECTION 6. ACCIDENTAL RELEASE MEASURES - SEE ALSO SECTIONS 5, 8, 13

Contain & collect. Keep out of drains and sewers

SECTION 7. HANDLING AND STORAGE

Store separately from any reactive substances - oxidisers in particular.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

SAPMA Rating: 4-H-C PPE: Eye protection

Inhalation: In case of insufficient ventilation, use suitable respiratory protection.

Skin: Use only as directed.

Eyes: Avoid direct contact. Never touch eyes with dirty hands or gloves.

Ingestion: Observe the rules for hygiene. Wash before eating, drinking or smoking.



SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical class: Non-hazardous material Description: Viscous liquid Smell: Pungent

FlashPoint (C): N/A

SECTION 10. STABILITY AND REACTIVITY

Stable under normal conditions

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

Use reputable waste disposal contractors. Exercise caution in disposal of used containers.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous for transport



SECTION 15. REGULATORY INFORMATION

EC no. : N/A

EC Classification: Not classified as hazardous

S2 - Keep out of reach of children. (Retail sales items)

SECTION 16. OTHER INFORMATION

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.