



ANTI RAIN CONCEPTS

“SHELTERING YOUR INVESTMENT”

ARC BIO METAL PROTECT

TECHNICAL AND MATERIAL SAFETY DATA SHEET

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SUPPLIER IDENTIFICATION AND INFORMATION

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Reg No: 2011/058900/23

PRODUCT IDENTIFICATION

Product name	ARC Bio Metal Protect
Principal Characteristics	ARC Bio Metal Protect is formulated as a water-based, rust-block additive that acts against corrosion. This product is ideal for rusted metal surfaces with its excellent anti-corrosion and weathering resistant properties. ARC Metal Protect is environmentally-friendly and does not emit noxious fumes and odours during and after application. It is also heat, ultraviolet, and creep resistant. Satin/ eggshell finish available in black, green and modern red colours.
Intended use	<ul style="list-style-type: none"> • Penetrates deep into the surface to which it is applied. • Has excellent permeability and waterproofing qualities. • Good adhesion to the top coat. • High fire resistance. • Non-toxic and odourless. • No chipping or scaling with anti-fungus properties and chemical resistance to acids, alkalines etc. • Heat, ultraviolet and creep resistant.
Intended use	ARC Metal Protect is ideal for areas such as metal, rolled steel, mild steel and galvanised steel. The product protects metal from rust.

COMPOSITION

TECHNICAL DATA:	
Solid by volume	46 + 1%
Colour	Black, Green and Modern Red
Gloss	Slightly sheen
Thinner	Product should NOT be thinned
Water Resistance	Excellent
Abrasion Resistance	Good
Corrosion Resistance	Good
Storage	Moderate temperature and must be tightly closed
Spreading rate	12 –15 m ² p/l at dried film thickness of 56 micron
Cleaner	Water
Shelf Life	2 years from manufacturing
De-canning Sizes	5 Litre & 20 Litre

HAZARD IDENTIFICATION

Primary route of exposure	
Inhalation	Ensure proper ventilation during application in a confined space.
Eye contact	When in direct contact with material you need to wash out with water and seek immediate medical attention.
Skin contact	Prolonged and repeated contact cause no irritation. No specific symbols are required for the use of the products. The products are non-combustible and not flammable and do not have specific acute, chronic or toxic effects on humans, nor are they harmful to the natural environment when released.

FIRST AID MEASURES

Eye contact	Flush eyes with large amount of water, if irritation persists, consult a physician.
Skin contact	Wash the skin with soap and water.
Ingestion	Drink plenty of water.

FIRE-FIGHTING MEASURES

When applied on surfaces: Non-combustible, could act to retard the spread of flame.

Smoke toxicity index	Toxic gas factor – 1.0.
When cured (not applied)	Can burn.
Extinguishing agents	Normal foam, powder, water spray, or carbon dioxide (CO ₂).

ACCIDENTAL RELEASE MEASURES

Personal precautions	Follow normal safety precautions and if spillage occurs in a confined space, ensure there is adequate ventilation. There is no LD 50 data available for the products and the concentrations of particularly hazardous materials are so low that they are not considered a significant hazard under the recommended conditions of use.
Environmental precautions	No environmental hazard when applied to surfaces or cured (solidified). No threat to freshwater or marine life.
Methods for cleaning up	Contain the spillage with sand or earth and take up spilled material (if possible) on a non-flammable absorbent (sand, earth, diatomite, chemical binders) and put in an appropriate container. Label the container with the waste designation, and dispose according to the legislation – do not use solvent.

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HANDLING AND STORAGE

Safe handling advice	Avoid direct contact with skin and eyes. Avoid inhalation and ingestion. Take personal protective measures and follow the protection and safety regulations. When working with coating products in a spray cabin, sufficient control of aerosols is unlikely and breathing apparatus such as respirators can be worn during spraying if preferred.
Measure to prevent fire	No specific preventative measures are required but keep the application area well ventilated.
Requirements for storage	Store in original containers (if possible) and keep tightly closed in a cool, dry, well-ventilated area. Although the products are not defined as dangerous goods, protect the products from direct extreme heat such as sources of ignition. Avoid direct sunlight and do not store in conditions below freeze-point.

EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limit: OHS PEL 15 mg/m (total dust), 5 mg/m (respiration fraction)

Personal protection:	
Respiratory protection	Respiratory programme must be followed whenever workplace conditions warrant a respirator's use. Not required if airborne concentrations are maintained below exposure limit listed in exposure limit information
Eye Protection	Safety glasses with impenetrable side shields are recommended.
Skin protection	Gloves may be used if required, but no known effects have been observed.

STABILITY AND REACTIVITY

Stability	Stable when following the handling and storage recommendations.
Conditions to avoid	Avoid temperatures above 40°C, direct sunlight and below freeze point for storage conditions.
Incompatibility	None known
Hazardous decomposition	By fire – carbon dioxide (CO ₂) and carbon monoxide (CO).

PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Colours	Green, Modern Red or Black
Odour	Characteristic of the specific product (faintly similar to a PVA paint product in some cases)
PH ~	8 -9
Reactivity	Salt fog resistant
UV Resistance/Weathering	75 000 hours – No visible breakdown
Density	> 1 gm/cm
Vapour density	Heavier than air
Solubility	Miscible in / with water prior to cure
Evaporation rate	< 1 water (see section 5)

TOXICOLOGICAL INFORMATION / HEALTH EFFECTS

Acute toxicity	No known effects – health hazard rating in group 4 (minimal) of the Recommended Practice (ARP 006: 1991) guideline
Skin contact	No known effects
Eye contact	Splashes can cause eye irritation
Chronic toxicity	No known effects
Carcinogenicity	No known effects
Mutagenicity	No known effects
Neurotoxicity	No known effects
Reproductive hazards	No known effects

Additional information	The products have not been tested, but their classifications calculated according to conventional methods from the dangerous substances regulations. The products have been used to paint aquariums that house tropical fish and ponds that house Koi fish with no effects at all. The products do not emit noxious fumes or odour during and after application.
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ECOLOGICAL INFORMATION

Aquatic toxicity	No known effects
Biodegradability	Products are considered highly biodegradable, but not tested
Bioaccumulation	No known effects
Mobility	Not tested
Additional information	The product is environmentally friendly with a very low VOC (Volatile Organic Compound) as tested by the Huntingdon / SWL laboratories, Report number: 261394 – 23093 and described by America as a revolutionary breakthrough.

DISPOSAL CONSIDERATION

Disposal key	080103 – EWC waste from water-based paints.
Disposal method	Hand over empty packaging to an authorised disposal company / waste company – the waste regulations of the appropriate authorities are to be followed.

TRANSPORT INFORMATION

ADR / FID (Road)	Not dangerous materials according to these regulations.
GGVSee / MDG (Maritime)	Not dangerous materials according to these regulations.
IATA (AIR)	Not dangerous materials according to these regulations.

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REGULATORY INFORMATION / EEC CLASSIFICATION

EEC hazard classification	None of the substances of the products are classified by the EEC as hazardous.
TSCA certification	All of the substances in the products are listed, or exempt from listing, on the TSCA.
National legislation	Pay attention to the Occupational Health and Safety Act.

OTHER INFORMATION

All data is based on the current knowledge of **ANTI RAIN CONCEPTS** and describes the product with reference to safety data and is therefore not intended to guarantee certain properties.

APPLICATION INSTRUCTIONS AND TECHNICAL DATA

- These instructions are not intended to show product recommendations for specific services.
- They are issued as an aid in determining correct surface preparation and application procedures.
- It is assumed that the proper recommendations have been made.
- These instructions should be followed closely to obtain the maximum service from the material.

Features Included:

- **Quick drying - overcoat 30 - 60 minutes**
- **Excellent flexibility - will never harden**
- **Ultraviolet and weather resistant: 75, 000 hours +**
- **Good abrasion resistance**
- **Exceptional performance in wet weather.**
- **Rust prevention**
- **Colour fastness**
- **Zero flame spread**

Recommended use:

Exterior and interior walls, structural steel, piping, tank frames, rail cars, corrugated iron, offshore oil and gas stations, boats, wood, asbestos, glass fibre, copper, glass and aluminium.

Excellent resistance to:

Acids, alkalis, water, salt solutions and solvents.

Temperature resistance:

Minus 50°C - 180°C. At 110°C loss of gloss is observed, and discoloration takes place, without loss of film integrity.

Application:

Suitability prepared concrete, metal and any surfaces as recommended.

Compatible Coatings:

A test patch is recommended before use of most coatings. Contact your ARC Distributor for specific information.

REQUIREMENTS FOR STORAGE AND APPLICATION

Parameter	Storage (Unopened)	Paint	Substrate	Environment
% RH (Relative Humidity)	100 % Maximum	-	Min 2°C above Dew Point	85 % Max
Temp °C Min	5°C	5°C	5°C	5°C
Temp °C Min	40°C	40°C	40°C	40°C



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Surface Preparation:

Previously painted and primed surfaces must be cleaned by removing all grease, paint and loose friable dirt with ARC Greenwash. Old enamel or oil painted surfaces should be sanded to a matt finish. Trial patches are required prior to full application.

Application:

Suitable to apply with brush, roller and spray.

