

Product and Technology Description

MCU-Ecocleaner® is a single component, water-based cleaner available in a Gel or Liquid formulated to remove corrosion, and to prepare various surfaces for MCU-Coatings® systems.

Effectively cleans and etches galvanised steel, nuts, bolts and washers providing a profile for adhesion of MCU-Coatings® primers.

MCU-Ecocleaner® can be used as supplementary to power tool and blast cleaning surface preparation.

Effective solution for cleaning and removing corrosion in crevices and other difficult to reach areas where traditional methods are not suitable or possible.

It is also highly effective at removing mill scale, green algae, humus, barnacles and limestone deposits.

Can be used on mild steel, aluminium, stainless steel, masonry, stone, polyester, etc. and will not harm cables.

MCU-Ecocleaner® is environmentally friendly, reduces health and safety risks, is non-flammable, non-toxic and biodegradable.

The product is also available in liquid form for dipping, washing and pump-recirculation applications.

Technology Features

- For removing light to medium rust
- Suitable as an alternative surface preparation, particularly when abrasive blasting, ultra-high-pressure hydro-blasting or power tool methods are restricted. In the surface preparation process it will also remove chlorides and salt contamination
- Suitable for short term applications to remove zinc salts from zinc rich epoxy coatings
- Suitable cleaner and surface preparation for galvanised surfaces, stainless steel and aluminium as it etches the surface adequately for the application of MCU-Coatings® products
- **Care must be taken when using** on galvanised steel as MCU-Ecocleaner® can weaken the galvanic adhesion after 15-30 minutes.
- **Not recommended** for use on metallized surfaces e.g. TMS and zinc ethyl silicate coatings
- Does not damage surrounding plastic and/or rubber materials (maximum 24 hours)

Areas of Use

- All corroded steel, aluminium, stainless steel structures, coated surfaces with sound adhered coatings
- Galvanised steel
- Concrete and stone
- Crevices where other forms of surface preparation are not effective
- Removal of algae, barnacles, limestone, etc
- Industrial and marine steel structures including Transmission Towers, Bridges etc.
- Removal of flash rust
- Rust contamination on existing coatings

Specifications

Colour:	Off white
pH:	>2
Viscosity:	6000 cps
Density:	1.1 kg/l ± 0.1
Flashpoint:	> 100°C
Recommended film thickness:	400 – 700 microns WFT

Packaging and Storage

Shelf life:	12 months
Storage:	Containers must be stored in a cool dry environment between 0°C and 25°C. Extended storage at temperatures exceeding 25°C is not advised and will reduce the products shelf life. The product must be protected from always freezing during storage.

Application

MCU-Ecocleaner® is a ready-to-use product and should not be diluted. It can be applied by airless spray, roller, and brush.

Surface treatment: Prior to application any loose & scaling rust and contamination should be removed to allow the best penetration. It may be required to wash and degrease the surface, as oily contaminants inhibit the activity of the product. Recommended biodegradable degreaser: MCU-Ecodegreaser®.

Cleaning: Use fresh water of sufficient purity and quality that does not contain sediments or other impurities. High pressure water wash and/or steam cleaners improve removal rates and reduce water usage. Pressure cleaning (between 300 – 500 Bar - 4350 – 7250 psi) for large areas will help remove alkaline salts from steel substrates.

Cleaned surfaces should be coated as soon as possible to prevent re-oxidation.

Recommended coating system: MCU-Coatings® moisture curing coatings can be applied on damp surfaces, which limits the development of flash rust.

Coating: MCU-Ecocleaner® should be spread evenly over the surface and allowed to thoroughly activate before removal. When applying by brush or roller use a soft medium brush /roller and apply the product generously to ensure an even coverage. It is important to achieve an even and uniform film. 1 litre of product should cover around 2 sqm of surface - depending on the conditions and the degree of corrosion. When applying to light rust less product is required.

Airless spray: Apply through a 0.53-0.79 mm tip with a spray angle of between 65° and 80°. Pressure at spray tip should not exceed 105 kg/cm² (1500 psi). High pressures are not required to apply a uniform coat.

Excessive pressures should be avoided as this can lead to poor atomisation and film formation, which will reduce the product's efficiency.

Brush: Use a soft brush and apply evenly and generously. Typically, 300 microns can be achieved.

Roller: Typically, 300 microns can be achieved.

Dwell Time: On corroded surfaces, leave the product on the surface between 4 – 16 hours. Heavy corrosion may need up to 24 hours depending on conditions and corrosion level.

IMPORTANT: We recommend a small test patch is carried out to determine the exposure time – particularly on heavily contaminated surfaces.

When applied in heavy wind, rain or intense sunlight it is always advisable to cover the application area to slow down the evaporation / drying out. Treated areas can be covered or wrapped in plastic where high temperature, wind/airflow or direct sunlight may cause drying out.

The removal rate of rust deposits is dependent upon the thickness and uniformity of the applied gel.

MCU-Ecocleaner® does not contain rust inhibitors. An MCU-Coatings® primer should be applied as soon as possible after the washing removal process.

Sunlight / Heat: cover the coated area to avoid fast drying. If the product does dry out reactivate the dried gel by applying a 2nd coat. Repeated applications may be required for areas where the corrosion is heavy.

Best Practice:

Clean application equipment as soon as possible after use with fresh water. Spills should be contained. Dispose of washing waste in accordance with local environmental legislation. Neutralising and diluting waste-water / waste may be required to meet local waste or sewage disposal requirements.

Handling and Disposal

MCU-Ecocleaner® is produced from organic materials/products and is completely biodegradable. Neutralising and diluting with water might be required to meet local waste or sewage disposal requirements. Spills should be contained.

Health and Safety

Avoid direct contact with skin. Wear chemical splash goggles, rubber boots and gloves. Remove product from skin and clothing by washing thoroughly with water. Product may cause slight eye irritation and is harmful if swallowed. Read label and MSDS before use.

Warranty

MCU-Coatings® warrants its products to be free from defects in materials. MCU-Coatings sole obligation, and Buyer's exclusive remedy, in connection with the products shall be limited, at MCU-Coatings® option to either replace the products not conforming with this warranty, or to credit the Buyer's account with the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to MCU-Coatings® in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf- life, or six months from the delivery date, whichever is earlier. Buyer's failure to notify MCU-Coatings® of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

MCU-Coatings® makes no other warranties concerning the products. No other warranties, whether expressed,

implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall MCU-Coatings® be liable for consequential or incidental damages.

Any recommendations or suggestions relating to the use of the products made by MCU-Coatings®, whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having the requisite skill and know-how in the industry, and therefore the Buyer must satisfy itself as to the suitability of the products for their own particular use, and it shall be deemed that Buyer has done so at its sole discretion and risk. Variations in environment, changes in procedures of use or extrapolation of data may cause unsatisfactory results.

Limit of Liability

MCU-Coatings® liability on any claim of any kind, including claims based upon MCU-Coatings® negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allowable for the products, or part thereof that gave rise to the claim. In no event shall MCU-Coatings® be liable for consequential or incidental damages. Published Technical Data Sheets are subject to change without notice. Contact your MCU-Coatings® representative for the most up to date Technical Data Sheets.