

## TECHNICAL DATA

### WR-STRIP

#### Description

A two pack stripping system consisting of a make up solution (WR-STRIP) and replenisher (WR-REPLENISHER) to remove paint and powder coatings from a variety of substrates. **The WR-STRIP SYSTEM does not contain Methylene Chloride, Methanol or Monoethanolamine.**

#### The Control of Substances Hazardous to Health Regulations 2002 (COSHH)

For a Safety Data Sheet on this product please contact Confederate Chemicals by telephone, or by e-mail at [lab@confederatechemicals.co.uk](mailto:lab@confederatechemicals.co.uk)

#### Instructions for use

The product described in this data sheet will remove, in various degrees, organic coatings from a variety of substrates. We are always pleased to conduct laboratory scale tests of customer's work and to demonstrate product samples at the customer's premises in order to assist in determining the most suitable product for his stripping requirements. Nevertheless, because the exact nature of the coating is not always known and because coatings, pretreatments and operating conditions change, the final suitability for a particular purpose must always be determined by the customer.

Concentration: Initial Fill: WR-STRIP used as received.  
Top up: Generally WR-REPLENISHER, but see solution maintenance overleaf.

Temperature: Ambient to 50°C. Preferred range 45-50°C.

Time: As required. Varies depending upon the temperature and the nature of the work to be stripped.

Agitation: Any form of mechanical agitation or circulation will improve stripping times. In order to get the best results however, it is of fundamental importance that the tank contents are circulated as rapidly as possible. Ideally, the tank volume should be turned over in less than 5 minutes using an electric centrifugal pump and returned to the tank through eductors. For further information visit our website at [www.paintstrip.com](http://www.paintstrip.com).

Sludge removal: Regular removal of stripped residues by continuous filtration is essential to maintain the solution in optimum condition and heaters at their most efficient. Generally this will be by means of a filter press which also minimises solution loss and waste generated for disposal. WR-STRIP is designed for use in this manner and its sludge characteristics make desludging by settlement impractical.

Rinsing: An overflowing cold water rinse is suitable. Air agitation is beneficial. Pressure washing may be required. It is essential that water is not introduced into the stripping tank by any means, including partially stripped work being put back into it without being totally drained first. Ensure there is no splashback from pressure washing into the stripping solution.

Water tolerance: WR-STRIP is formulated to resist moderate water contamination both in terms of degradation of the product and etching of light metals. In case of severe contamination or where there is a tendency for the material to split in phases, metal attack may occur, particularly at the surface of the solution.



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Solution maintenance: Top up to the normal operating level with WR-REPLENISHER.  
Accelerator Titration: Take a 25ml sample from the tank. Filter the sample and titrate 2mls of the filtrate against 0.1N Hydrochloric Acid to the Phenolphthalein end point (pink to colourless). Each ml is considered 1 point.

Normally a WR-STRIP installation will operate between 6 and 14 points.

- 1) ABOVE 14 points: Make regular top up additions of WR-STRIP rather than WR REPLENISHER until system pointage is reduced to the desired level.
- 2) BELOW 6 points: If it becomes impossible to maintain the solution above 6 points then add Potassium Hydroxide flake accelerator through an addition chamber.

## Equipment

Mild steel is suitable for tanks and pipework. Keep the surface area of the stripping tank to a minimum to avoid solvent losses. Use a close fitting lid to minimise evaporation, risk of contamination and as a safety precaution. Incorporate a frame to the base to keep the work out of removed residues. Ensure pipe work has threaded unions and joints incorporated to allow easy dismantling for cleaning if required.

Indirect heating capable of maintaining the tank at the operating temperature is required. Ideally this could be an oil jacket. If steam or water is used, care should be taken to ensure there is no water leakage into the stripper. **Low density** electric heaters may be used but care must be taken to ensure they are of the correct specification and that stripped residues are not allowed to build up on the elements. Electric immersion heaters should have a cold "leg" at the surface otherwise fumes will evolve. Electric heaters should ideally be mounted on a removable frame to allow regular inspection and cleaning. Standard immersion elements and naked flame heaters are unsuitable.

A filterpress is the most efficient filtration system. As a guide, for a typical 2000 litre installation an industrial 12 plate press or larger may be suitable although the recommendation of the filterpress supplier should always be sought. The pump should be capable of pumping up to 6 bar to it. The solution return from the filterpress to the stripping tank is by gravity. This necessitates mounting the filterpress above the solution level that also aids filter cake removal.

Air operated pumps with PTFE ("Teflon") faced diaphragms are recommended for use with the filter press. These avoid flame proofing considerations, are less susceptible to damage if stalled by back pressure, are more suitable for pumping suspended solids and have no shaft seals to fail.

A circulation system of pipes and eductors throughout the tank is highly recommended. The inlet pipe should ideally pick up along the complete length of the bath about 6" to 9" from the tank base. A suitably specified electric centrifugal pump is preferred to deliver a constant pressure to maximise the eductor efficiency.

PTFE is suitable for gasket materials. Copper, brass, aluminium and zinc die-casting should not be used for taps, pipes, valves etc. Galvanised materials are undesirable.

It may be necessary, under certain circumstances, to increase the accelerator content by the addition of Potassium Hydroxide flake as an accelerator. This is most easily made using a dissolution chamber into the circulation system. This can be made with a bag filter housing with only the supporting mesh used to contain the accelerator. (Do not use a filter bag). Ensure the chamber is above the solution level and can be drained. The stripping solution should be pumped through the filter chamber until all the Potassium Hydroxide has dissolved. Alternatively, a 2mm mesh basket suspended in front of one of the eductors may prove suitable.

When sizing pumps, pipework, heaters and the filterpress always err on the large side where possible.

**For more detailed information about Confederate Chemicals paint stripping systems, please visit our website at [www.paintstrip.com](http://www.paintstrip.com).**

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