

# V-CLEAN DEGREASER MANUAL

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## WHAT IS V-CLEAN METAL DEGREASER

Verzinkshop V-Clean is a powerful, emulsifying alkaline immersion degreaser (soak cleaner) for steel and almost all other metals. The product is designed to clean effectively at relatively low operating temperatures and without etching aluminium under normal use.

V-Clean is suitable as a pre-cleaning step before, among others, chemical blackening, electroplating and phosphating. It is a low-caustic cleaner and contains no chelants.

Important for a good follow-up result:

- Cleaning/degreasing determines the adhesion and uniformity of all subsequent process steps.
- Work cleanly and prevent drag-in/drag-out into rinse tanks and subsequent baths.

## REQUIRED EQUIPMENT

### Tanks/baths

- Tanks can be made of (bare) steel or stainless steel.
  - Do not use: galvanised steel, bronze, copper, tin or aluminium tanks, baskets, hooks, heaters, etc.
- Hanging / loading
  - Racks, baskets and barrels must be compatible with the subsequent baths in your line.
- Heating
  - Immersion heaters may be made of (bare) steel.
- Ventilation
  - Provide (forced) ventilation if misting occurs (e.g. due to temperature, agitation or air sparging).

## PREPARATION

First remove heavy contamination (dirt, chips/swarf, polishing compound, thick grease layers).

Position parts so the solution can reach all areas and no air pockets remain.

After cleaning, always rinse thoroughly with clean water and continue to the next step without unnecessary drying pauses.

## OPERATING CONDITIONS

Mixing ratio: 5–12% v/v.

Temperature: 38–65 °C (effective at lower temperatures).

Ventilation: required when misting occurs.

Rinsing: always rinse generously with clean water to minimise carry-over of solutions (especially before acidic steps).

## MAKING UP THE DEGREASER

Immersion degreasing (soak cleaning)

Target concentration: 5–12% v/v (by volume) in water.

(Optional) spray / application at low concentration 0.5–2% v/v in water.

Mixing instructions:

- Fill the tank with the required amount of water.
- Add the required amount of V-Clean concentrate.
- Mix gently until homogeneous (avoid unnecessary foaming).

Mixing examples (v/v)

- 1 litre: 50 ml (5%) / 120 ml (12%)
- 5 litres: 250 ml (5%) / 600 ml (12%)
- 10 litres: 500 ml (5%) / 1200 ml (12%)
- 20 litres: 1000 ml (5%) / 2400 ml (12%)

For 0.5–2%

- 1 litre: 5–20 ml
- 10 litres: 50–200 ml

## WORKING METHOD

Bring the bath up to temperature.

Immerse the parts in V-Clean.

Light movement/agitation to remove air bubbles and keep the entire object in contact with fresh solution.

Cleaning time: depends on contamination level, temperature and concentration; optimise using test pieces and keep the process reproducible.

- Lightly soiled / well prepared (light storage oil, fingerprints, light film): 2–5 minutes
- Normally soiled (clearly greasy, light production residues): 5–10 minutes
- Heavily soiled (more oil/grease, light baked-on contamination): 10–20 minutes or improve pre-cleaning.

Remove and rinse immediately and thoroughly with clean water.

Proceed to the next step (activator/etch, electroplating, conversion coating, etc.).

## MAINTENANCE AND STORAGE OF THE SOLUTION

The solution is maintained at strength by periodic additions of V-Clean concentrate to compensate for consumption and drag-out.

V-Clean is emulsifying: oil remains in suspension and does not form a floating oil layer. As contamination increases, cleaning performance may visibly decline. Store the concentrate or the made-up solution closed, cool, dry and ventilated. Always label contents and date.

## WHEN TO REPLACE

If cleaning becomes noticeably worse despite correct concentration/temperature  
if the solution becomes excessively contaminated with oils or fats  
if you experience film/water-break after rinsing

## PROPERTIES

Property	Specification
Product	Verzinkshop V-Clean emulsifying alkaline immersion degreaser
Works on	All metals
Dilution	• 5–12% v/v• spray: 0.5–2% v/v
Process time	Strongly dependent on contamination level
Agitation	Light movement; circulation/filtration optional
Temperature	38–65 °C
Shelf life	Concentrate: 1+ year in sealed packaging Made-up degreaser: several months in sealed packaging
Tanks/baskets/racks	• (bare) steel or stainless steel• Do not use: galvanised steel, bronze, copper, tin, aluminium
Chelants	Contains no chelants

## PROBLEMS AND SOLUTIONS

Problem	Cause	Solution
Insufficient cleaning result / parts remain contaminated	Required cleaning time depends on the type and degree of contamination and on the concentration and temperature of the working solution.	Work within the process parameters: concentration 5–12% v/v and temperature 38–65 °C. Within this range, adjust concentration and/or temperature and extend the cleaning time until the desired result is achieved.
Mist/misting above the bath	Misting present during use.	Provide sufficient forced ventilation/extraction.
Bath is “spent” / no longer works due to contamination	The cleaning solution is excessively contaminated with soils/contamination.	Dispose of the old degreaser and make up a new bath.
Concentration/performance drops during use	Consumption due to removal of contamination and due to drag-out from soak cleaning.	Maintain the working solution by periodic additions of concentrate.
Corrosion/contamination due to incorrect tank/parts in contact with the bath	Use of non-permitted materials (galvanised steel, bronze, copper, tin or aluminium) in the tank/fixtures/heaters/installation components.	Use tanks made of (bare) steel or stainless steel; immersion heaters made of (bare) steel. Do not use galvanised steel, bronze, copper, tin or aluminium as contact materials.

## WARNING!

The degreaser is alkaline. Avoid contact with eyes, skin and clothing. Wear eye protection (goggles, goggles, or face shield), protective rubber gloves, and aprons when preparing solutions and while working with the solutions. Mix the product only with water and no other chemicals. The concentration and prepared solution are toxic when used internally.

Do not work with the Verzinkshop products without first reading and understanding the safety information.

The safety data sheet can be found on the product page or can be requested from Verzinkshop.nl by e-mail: [info@verzinkshop.nl](mailto:info@verzinkshop.nl)

Do you have any questions? Contact us via:

Mail: [info@verzinkshop.nl](mailto:info@verzinkshop.nl)

Whatsapp or call: +31 6 28090022

[www.verzinkshop.nl](http://www.verzinkshop.nl)

## SAFETY

Always wear a dust mask, respirator, gloves, and apron when necessary.

Always treat any chemical as if it could kill you.

Always label buckets and storage containers with a permanent marker so that you and others know what's inside.

Never pour water into acid; it can heat up and explode. Always pour acid into water.

Never leave electroplating baths or other systems that use power unattended. These products may cause a short circuit and cause a fire.

Never come into direct contact with chemicals. They can cause serious burns or other damage and are very dangerous substances if not treated with respect.

Never think you can get away without taking safety precautions! That is not possible!

Never leave the lids off the tanks when not in use. They will fall over!

Always work safely and ensure good protection and ventilation.

The safety data sheet can be found on the product page or can be requested from verzinkshop.nl by e-mail: [info@verzinkshop.nl](mailto:info@verzinkshop.nl)

## DISCLAIMER

Did you find an error or something unclear in the manual? Please let us know via  
[info@verzinkshop.nl](mailto:info@verzinkshop.nl)

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