Product Data
Preparation and Application
for Pools, Ponds and Industrial Use

SWIFTVULC
Chlorinated Rubber

SwiftVulc is a single-pack chlorinated rubber coating specifically designed for immersion conditions in water and aqueous chemicals. SwiftVulc, and all Macleod Industries products, are manufactured to the highest standards. SwiftVulc is and has always been manufactured in Australia. Macleod Industries is a wholly Australian-owned company.

Primary Uses:
SwiftVulc is used in swimming pools, water features, ponds, horse troughs, for asbestos encapsulation, for recoat of cement and terracotta roof tiles, in potable water-tanking, as a floor coating, to repaint trampoline matting, for dairy floors and walls, and for a variety of metal and mineral substrates. Can be used in a wide range of areas to protect against water and aqueous chemicals.

Advantages of SwiftVulc
- Wide range of colours available
- Versatile, can be used on a wide range of metals, mineral substrates, and other materials
- Long shelf life (Over five years in unopened containers)
- Extremely water-resisting at low film builds
- Good corrosion-resisting properties when used on steel and other metals prone to oxidisation
- High binder content compared to most commonly available chlorinated rubber coatings
- Excellent adhesion
- Unlike vinyl chloride monomers, chlorinated rubber resin is not classified as a carcinogen
- Excellent aqueous chemical resistance
- Effectively unlimited time between subsequent coats
- Single-pack product means no mixing, no wastage
- No special primer needed for many applications
- Excellent UV stability
- Dried film is effectively inert and does not release chemicals which will alter chemical balance of water

Note: This publication is offered as a guide and an assistance toward use of our product. The information is based on years of experience and is offered in good faith. This guide and guides of this type are not intended to replace or substitute for knowledge of coatings, substrates, or preparation or application techniques. The techniques and specifications are of a general nature, and cannot possibly detail all possibilities for all applications. If there is any doubt that this publication is suitable for your application, please contact Macleod Industries directly.

Safe Use of This Product
Safe use of this product requires good work practices. MSD Sheets are available on request. Please familiarise yourself with these sheets before starting work. The aromatic solvents in SwiftVulc evaporate as the paint dries. Good airflow is necessary to remove these vapours. In enclosed areas, or where airflow is not good, extraction fans and/or personal protection gear may be required. Spray application will result in much higher levels of fumes than brush or roller application and this should be taken into account.

Product Data
Technical data is typical and representative of the product.

Form:	Thixotropic liquid
Density:	Approx. 1.2 kg/litre (varies somewhat with colour.
Temp. Resistance Maximum, Permanent Conditions:	Approx. 50º C immersed Approx. 80º C, dry, at 50% R.H.
Non-Volatile Volume:	35% ±3%
Coverage:	9 m^2/ ltr, to produce 40 micron DFT.
Colours:	Consult current colour card for full range.
Packaging:	1 and 4 ltr tins, all colours. Some colours in 20 ltr pails.

Shelf Life: Unopened containers will keep for a minimum of 5 years when stored between 0º and 35º C. Properly resealed partially used containers should keep as long.

Chemical Resistance:

SwiftVulc is resistant to
temporary exposure to, or spills of:
- Concentrated hydrochloric, sulphuric and acetic acids
- 10% concentrations of nitric acid
- Concentrated sodium hydroxide (caustic soda) solution and many other alkaline compounds
- 25% Ammonia (Technical Grade)
- Dilute ethanol solution (including wine).

SwiftVulc is resistant to full
immersion in, or long term exposure to:
- Pure water
- Dilute hydrochloric, hydrofluoric, sulphuric, phosphoric, tannic, cyanuric, and uric acid.
- Dilute sodium hydroxide (caustic soda) and many other alkalis
- Seawater and solutions of many alkaline salts
- All chemicals commonly used in swimming pools, at concentrations recommended by manufacturers and pool maintenance professionals.
- Most mineral oils
- Wet chlorine and iodine gases
- NOTE: For best results in a swimming pool environment, consultation with a pool maintenance professional, and reference to the Langelier Index is recommended.

Surface Preparation

Important Note: The purpose of surface preparation, for this coating or any other, is to produce a surface that is clean and sound. Anything other than a clean and structurally sound surface will detract from the life span of any coating applied to it. This reduction in life span will be even more pronounced in immersion conditions.

All substrates must be sound, free from grease, oil, and fats, and free of soluble salts. If you are aware of serious contamination of your substrate, contact a professional to prepare the surface for you, or contact Macleod Industries directly for more information.

Basic Techniques used in Preparing Surfaces

Degrease and Rinse

Degrease surfaces using a solution of EC101 (preferred) or other degreaser at concentration specified on package. Manually scrub using a stiff bristled broom or scrubbing brush and rinse thoroughly when finished to remove all grease, fats, and oils. Ensure all residues are thoroughly removed; rinse with clean potable water with low dissolved mineral content. If substrate is a swimming pool or spa, pay particular attention to the waterline, and directly above and below, and to the shallow areas and the steps.

Waterblast

Waterblast at 3000 p.s.i. or higher. Tip should be no further than 80 cm from the surface to ensure good pressure. This removes solubles and unsound paint or substrate. If removal of unsound paint is required, it is recommended that the surface be waterblasted a second time, at least one hour after the first blasting. The water used should be low in dissolved minerals.

Acid Etch and Rinse

Read all safety instructions on the container of acid before beginning. Protective mask and clothing should be worn. Rinse with a solution of spirits of salts (33% - 35% hydrochloric acid) to react and solubilize alkaline salts and remove them, and to etch smooth surfaces. Spirits of salts should be diluted 1:3 (acid: water). A plastic watering-can equipped with a rose is recommended for mixing and application of acid. Always add acid to water. Ensure that every part of the surface is exposed to fresh, unreacted acid. Rinse immediately with water free of soluble minerals; acid residues must not be allowed to dry on the surface.

Abrasion

Abrasion is necessary to reduce the gloss and surface smoothness of a previous epoxy or urethane coating, or where loose rust on a metal surface is present. Sandblasting, wet sandblasting, disc grinding with angle grinder, or manual abrasion with grit paper are all acceptable. Metal surfaces should be abraded to SA 2.5. Remove grit and paint and substrate particles from area when finished.

Preparing Mineral Substrates for Painting

Mineral Substrates include:

- Concrete and concrete formwork
- Cement render
- Cement sheeting and cement and terracotta tiles (unglazed).
- Marblesheen™,Quartzon™,and other coloured renders, not including pebbled render surface.
- Note: Render or render patches which have been modified with resins may be difficult to overcoat. If your render has been modified with resin, please contact Macleod Industries or the render manufacturer before proceeding.

Preparing New Mineral Substrate

- Make sure that the substrate has cured fully
- Acid Etch and Rinse. Ensure that the substrate is now rough. Steel-trowelled finishes can be quite smooth, and may require a second acid etch and rinse.

Preparing Aged Unpainted Mineral Substrate

- Degrease and Rinse
- Acid Etch and Rinse
- Waterblast

Preparing a Mineral Substrate Previously Painted with SwiftVulc or other Chlorinated Rubber

- Degrease and Rinse
- Acid Etch and Rinse
- Waterblast, wait an hour. If paint is curling at edges, waterblast again. Repeat, if necessary. If this continues, you may need to sandblast to remove all paint.

Preparing a Mineral Substrate Previously Painted with a 2-Part Epoxy, or 2-Part or Moisture-Cure Urethane

- Degrease and Rinse
- Acid Etch and Rinse
- Allow to dry. Examine gloss level and smoothness of paint and abrade to remove gloss and provide a profile for adhesion.
- Waterblast, wait an hour. If paint is curling at edges, waterblast again. Repeat, if necessary. If this continues, you may need to sandblast to remove all paint.

Preparing Mineral Substrates with another type of Coating

- Contact Macleod Industries directly for advice specific to your application.

After Surface Preparation of Mineral Substrates

SwiftVulc is not a patching compound or render. Damaged areas or blowholes should be patched after cleaning and before painting. Straight render should be allowed to cure fully, and be acid etched before painting. 2-component epoxy patching compounds should be abraded to remove all gloss after curing. Paint applied to epoxy surfaces should be unthinned. Please ensure the patching compound you are using is recommended by the manufacturer for your application. SwiftVulc is not a membrane, and will not solve serious engineering problems.

Preparing Steel for Painting

- Degrease if any grease or oils are present. Dry surface as quickly as possible after rinsing.
- Abrade to remove loose rust or mill scale if present. Mill scale cannot be removed by hand sanding.
- Treat surface with a wash on/wash off rust convertor before painting.

Preparing Aluminium for Painting

- Degrease and rinse if any grease or oils are present. Dry surface as quickly as possible after rinsing
- Lightly abrade to remove white rust, if present, and to roughen the surface to promote adhesion

Preparing Fibreglass

- The variables with fibreglass are too numerous to detail in this publication. Contact Macleod Industries directly for additional information

Preparing Other Substrates

There is a wide range of substrates which can be overcoated and protected by using SwiftVulc. Wood, plaster, plastics, rubber, stone, bitumen, hessian, string, paper, and many more. For technical advice on your specific application, contact Macleod Industries directly. Preparation and painting of asbestos should only be done by a fully licensed and trained contractor.

After Preparation

Substrates must be completely dry before painting begins. Coating damp substrate will lead to adhesion loss. If dampness is a problem, contact Macleod Industries before painting.

Application Technique

- Roller: Use a 10-12 mm nap, quality synthetic (Rolana or equivalent) or lambs wool roller. Do not re-roll over partially dry paint, as cobwebbing and/or lifting of the coating may occur.
- Brush: Use any solvent-resistant (epoxy set) brush. Paint may be left to dry on brush and redissolved in SwiftVulc or SVX Thinner for use at a later date.
- Thinning/Cleanup: Thin only with SVX Thinners, as directed for your application. Thin only as instructed or to replace volume lost from open container due to solvent evaporation.
- Stirring: All paint should be well stirred to a uniform consistency before and during use.

Application Conditions

Temperature: At the substrate, temperature should be between 5º and 25º C. Painting of mineral substrates is best done after peak temperature of the day, once the temperature of the substrate is falling. Substrate temperatures generally begin to fall two hours after the air temperature begins to drop.

Humidity: Any humidity level is acceptable, assuming the substrate is completely dry and not wet from rain or condensation (dew). Drying times will be increased in very humid conditions.

Intercoat Times: Minimum 8 hrs at 25º C and 50% relative humidity. No theoretical maximum, assuming surface remains free of contamination. Best results are generally achieved applying two coats at the same time of day (as substrate temperature is static or falling), 24 hrs apart. Very humid weather with minimal airflow will impede solvent evaporation, allow 48 hrs between coats.
Spread Rate: Recommended spread rate is 9 m^2/ltr per coat, to produce a dry film build on a non-porous substrate of approximately 40 microns per coat.

Cure Rate: SwiftVulc cures solely by solvent evaporation. Film is touch dry within 1 hr, print free within 3 hrs at conditions of 20º C and 50% RH, assuming good airflow. Humid conditions or poor airflow will increase cure times. SwiftVulc must be allowed to fully dry before it is immersed in water. Solvent release from coating is not possible once the coating is immersed in water.

Painting Mineral Substrates

- You will need to prime unpainted mineral substrate with one coat minimum of SwiftSeal. Marblesheen™, Quartzon™,or other coloured or very porous substrates may require two coats. If SwiftSeal is not available, you may use SwiftVulc thinned 1:1 with SVX thinners.
- After priming/sealing, or over previously existing paint, apply two coats of unthinned SwiftVulc at standard spread rate.

Painting Uncoated Steel

- You may apply one coat of SwiftVulc Aluminium High Build, if desired, as a combination sacrificial/barrier coat. This is not required, but will assist in corrosion protection should a simple barrier coat be insufficient.
- Apply two coats of SwiftVulc, unthinned.

Painting Uncoated Aluminium

- Apply two coats of SwiftVulc, unthinned.

Painting Fibreglass

- Apply two coats of SwiftVulc, unthinned.

Painting Other Substrates

- Contact Macleod Industries directly for application advice.

Important Notes:

- Tins from different batches should be mixed together before application, please check the batch numbers on the product you have purchased.
- This product is thermoplastic, and as such is not resistant to solvents or animal or vegetable oils or fats. If you require solvent and/or oil/fat resistance for your application, please consult Macleod Industries for a more appropriate product.
- For swimming pool applications, where no tiles exist at the waterline, consult Macleod Industries. If fats/oils are likely to build up at an untiled waterline, you may need a different or additional product for this area.
- Many coloured render swimming pool finishes were never intended to be painted. As adhesion of paint was not engineered for, overcoating is sometimes difficult. Coloured or uncoloured render surfaces with no topcoat may degrade to the point of being unsound in fully immersed conditions. Painting will not solve serious structural problems. Experience shows, however, that use of SwifVulc can produce good results on these finishes.
- Painting at higher than recommended film builds, or in temperatures above recommendations, or on surfaces with rising temperatures, may lead to solvent entrapment blistering. Darker colours are more prone to solvent entrapment blistering.
- Allow film to fully cure before immersing in water. For swimming pools, the standard is 7 days for an external pool, and 14 days for an internal pool. These are guides only. The pool, fish pond, water feature, water tank, etc. cannot be filled with water until all solvent has left the coating.
- Macleod Industries is not associated with the manufacturers or installers of Marblesheen™ or Quartzon™. Macleod Industries neither promotes nor disparages these products, and the names of these products are merely used as an example of coloured render finishes in common use in Australia.
- Ensure that water you use to fill fish ponds or water features which will contain fish is suitable for the purpose. A large percentage of council and bore water contains chlorine and fluorine compounds, or other minerals, at levels which are injurious to aquatic animal and plant life. Contact pet and plant shops in your area which specialise in fish and aquatic plants.
- Follow the advice of a qualified pool maintenance professional on proper chemical levels for your pool. The Langelier Index is the Best Guide You Can Use To Determine Whether Your Pool Is Balanced.

Safe Use and Handling:

- Avoid contact with skin and eyes. Avoid breathing vapour.
- Wear protective gloves and clothing when using SwiftVulc
- If poisoning occurs, contact a doctor or the Poisons Information Centre in your area.
- If swallowed, do not induce vomiting. Give a glass of water.
- If skin contact occurs, remove contaminated clothing and wash skin thoroughly.
- If in eyes, hold eyes open and flood with water for a minimum of 15 minutes and contact a doctor.

Environmental Protection:

- Do not spill this product or its thinner in or near waterways.
- Spilled paint, drop cloths with paint spills, used rollers, soiled clothing may be safely disposed of as household rubbish only when the paint is entirely cured and free of all solvent.
- SwiftVulc has an indefinite pot life. Unused paint should preferably be stored for future use, reducing wastage and cost to the environment. Resealed correctly, this product should last nearly as long as an unopened container.
- If storage of unused paint is not possible, you may return residuals to Macleod Industries for safe disposal, contact a disposal company in your area specialising in the safe disposal of solvent-containing paints, or allow the paint in the tin to cure through solvent evaporation. Fully cured SwiftVulc is inert and may be disposed of with household rubbish.
- Please contact Macleod Industries directly if you or your organisation have questions or advice about the environmental impact of Macleod products.

Conditions of Sale:

This product is manufactured to the highest standard and is sold primarily for commercial and industrial use. All recommendations as to the suitability and methods of application provided by the company and its agents are based on extensive research and testing. However, the actual use of the product may be affected by conditions which the company cannot forsee or control (i.e. Application techniques or conditions other than those specified in this publication, application on substrate which is unspecified, unsound or contaminated, inadequate curing of the coating, or exposure to chemicals or concentrations of chemicals the coating is not specified as being chemicalls resistant to). The liability of the Company is limited to the replacement of the product, entirely at its discretion. The Company shall not be liable in a situation where its recommendation as to suitability and application has not been complied with.

ADDENDUM TO STANDARD APPLICATION SHEETS

SPRAY APPLICATION OF SWIFTVULC

The following application specifications have been tested and produced by Wagner Spraytech. Alternative equipment or methods may not produce the same result.

- Wagner Electric Diaphragm Airless Spray System, with 20 litre Hopper Feed System (gravity fed).
- ¼" diameter Airless Hose
- Spray Pressure: 2800 – 3000 psi
- Recommended Nozzle: 0.019° – 0.021°

If desired, SwiftVulc may be thinned 5% to assist flow. Use of SVX Retarder Thinner in place of standard SVX may be recommended.

Please keep in mind that solvent vapours are present in much higher levels when spraying than when rolling or brushing and make appropriate occupational health and safety decisions with this in mind.

BROKEN COLOUR EFFECTS

Broken colour effects can be achieved in a number of ways. Sponging (on or off), dragging and ragging, can create interesting and unique patterns and combinations.

Paint two coats of the solid base colour onto the surface first. Use a glaze of a complimentary or contrasting colour to create the broken colour effect.

A colour glaze can be made up of the following formulae:

1 part SwiftVulc CR
1 part SVX Retarder Thinner
1 part SwiftSeal Clear

When creating a broken colour effect, please ensure that you follow all safety instructions and that any materials you use to produce the effects are sufficiently resistant to the aromatic hydrocarbon solvents.

Please keep in mind that a broken colour finish may need recoating sooner than a solid colour finish would due to the lower DFT (Dry Film Thickness).

ADDENDUM TO STANDARD APPLICATION SHEETS

SWIFTVULC FOR TRAMPOLINES

Trampolines should be well cleaned and fully dry before painting.

Trampoline mats may be painted with a brush or roller and can be painted without removing from their bases/frames.

Black polymer mats should always be painted on both sides, with two coats per side and a delay of a minimum of 4 days before regular use.

String mats may be painted on one side only, if desired. Wait at least 2 days after painting before regular use.

BOXING

SwiftVulc cannot and shouldn't be tinted using commonly available tinters, but colours can be mixed together to create custom colours.

All SwiftVulc colours, except Silver, can be mixed with other colours.

Please keep in mind that some pigments are more stable than others and that certain pigments, primarily those in Signal Red, Mobile Yellow and Light Orange, will fade faster than others. This means that the tone of a mixed colour may alter over the life of the coating.

IMPORTANT NOTES

Please always read Material Safety Data Sheets and plan your work to eliminate or minimize risk to yourself and those around you.

Please call Macleod Industries if there are any questions about your application.

CHECK LIST

1. **HAVE YOU READ** the appropriate 'current' Preparation and Application instructions? These are available from your supplier or Macleod Industries. If your substrate is not mentioned specifically in our literature, it is advisable to seek more information from Macleod Industries prior to commencing.
2. **CHECK WEATHER CONDITIONS**. Do not attempt to paint when substrate temperature is above 25° C or below 5°C or rain is forecast. Note: ***SwiftVulc Chlorinated Rubber*** is best applied in the latter part of the day when substrate is dry and the afternoon sun is off the surface.
3. **MAKE YOUR JOB EASIER** by having the right equipment.
   - Roller covers 10-12mm nap. Suitable for solvent based paints.
   - Brushes suitable for solvent based paints.
   - **OPTIONAL** – Airless spray gun (e.g. Wagner Electric Diaphragm Airless Spray System with 20 litre Hopper Feed System – gravity fed). Quarter Inch (¼) diameter Airless Hose. Spray Pressure: 2800 to 3000p.s.a. Recommended Nozzle: 0.019° – 0.021°. If desired, SwiftVulc may be thinned 5% to assist flow. Use of SVX Retarder Thinner in place of standard SVX may be recommended.
   - If painting a pool you will need: brush/rollers; water-blaster capable of 3000psi; stiff bristled broom; plastic watering-can with rose fitted for mixing hydrochloric acid; pump; wet/dry vac if needed.
4. **SLIPPERY STEPS.** If applying paint on steps you should consider broadcasting triple-washed silica sand on wet paint to give a non-slip finish. This can be done between coats or on top of final coat.
5. **HEALTH AND SAFETY ISSUES.** Ensure you understand the risks associated with using this product and how it relates to intended use. A "Material Safety Data Sheet" is available on request.

IMPORTANT TO REMEMBER when using ***Swiftvulc Chlorinated Rubber.***

- Prior to commencing, ensure that you have the correct colour and the same batch nos.
- It is preferable to use a flat paddle blade for stirring paint.
- Ensure surface is thoroughly dry. Do not paint in direct sun or in the heat of the day.
- Application of a test patch is advised if you are in any doubt as to this products suitability.
- SwiftVulc Chlorinated Rubber is a thermoplastic paint and dries by solvent evaporation. Allow 24 hours between applications.
- Do not mix this product or clean equipment with turps., as this is not a compatible solvent. Use only solvent recommended by manufacturer (SVX Thinner or SVX Retarder Thinner).
- **Swimming Pools**: Allow 7 days (at ambient 20°C) before filling pool. Keep your pool balanced appropriately throughout the year. This will increase the life-span of the paint.
- **Fish Ponds:** Allow 7-10 days (at ambient 20°C) before filling pond. It is important that all solvent has evaporated out of paint. If you can smell solvent present, leave your pond longer before filling. Once dry, the paint is non-toxic to plants and fish.

FOR YOUR RECORDS.....KEEP THIS IS A SAFE PLACE

COLOUR_____WHERE PURCHASED_____DATE_____

BATCH NO_____QUANTITY_____

DATE PAINTED_____

SwiftVulc Chlorinated Rubber is suitable for a wide range of applications, including swimming pools, fish ponds, trampolines, dairy sheds and mineral and metal surfaces in a wide variety of situations. It has excellent resistance to UV and offers protection in corrosive environments.