

Principles of MAXISTRIP™

Maxistrip™ is an industrial strength paint stripper. It has excellent adhesion to the wall, very rapid action and has an industrial surfactant (detergent) built in. The surfactant allows the applicator to remove any residues easily and quickly, with no concern on the adhesion of sealer coats. The system was developed in New Zealand by Systemax.

To date we have found no comparative systems either here or overseas.

Due to the health risks involved in dealing with lead based paints and the importance regarding safe use of Maxistrip™ and Systemax technology, we supply only to painting professionals.

The process is simple. The applicator applies Maxistrip™ to the surface with our low pressure airless spray system INDUS 20. The product is then left for a dwell time to penetrate then you scrape the paint off. In the case of weatherboard homes the removal is normally done with a linbide blade. However different substrates can allow different approaches to removal.

Systemax's spray application unit INDUS 20 has been designed with the safety of the operator in mind. We have developed a no contact application system, which is safe, efficient and effective. The first time an applicator needs to come into contact with Maxistrip™ is when the paint has been coated and ready for removal. The INDUS 20's spray gun produces a low-pressure fan, this reduces blow back onto the applicators face and body. Our studies on application machinery have ruled out all other airless sprayers, for safety and chemical incompatibility. High pressure sprayers cause blow back and over spray. This can result in damage to other surfaces and the environment.

This is why we had to develop our own application technology.

The paint is moist when it is removed, this ensures there is virtually no dust or flakes to blow into your clients yard, or if working inside, throughout their home. The Systemax's system's is much less invasive, as it reduces the sanding required, and in many cases no sanding is required. No noisy grinding for the client to tolerate for weeks on end.

Using the Maxistrip™ system.

Maxistrip™ was originally developed as a system for fast and clean removal of paint from the exterior of houses.

We have since developed Maxistrip™ to be versatile and effective on many Industrial/Automotive paint coatings, internal paint and polyurethane removal.

Advantages

- 1). The low pressure particulation allows a clean and even build of product on to the object.
- 2). The Application system means no contact or pouring of product.
- 3). Enables applicator to remove lead paints without site contamination by paint fumes or dust.
- 4). Enables applicator to effectively work with asbestos without high levels of asbestos dust.
- 5). Process is quiet which makes it attractive to clients. No sanding and grinding for weeks on end.
- 6). Makes it cost effective for your clients (Increasing your target market).
- 7). **Significantly Reduces**
 - a) Contamination of product as is seen when applying with brush or roller.
 - b) Discomfort due to constant contact.
 - c) The slow nature of brush and roller application.
 - d) Lead Dust and/or Asbestos Dust.

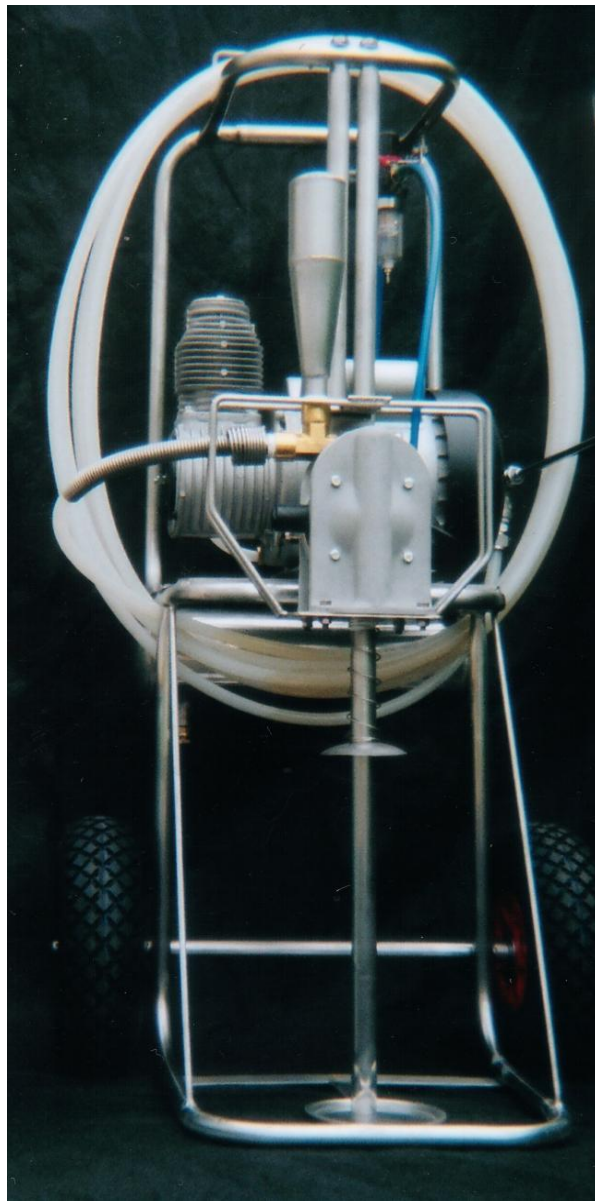
Spraying machine: INDUS 20.

This unit is designed for tradespersons that specialise in existing home repaints.

It is easy to use and is designed to take our 20 litre containers. The trolley is manufactured out of 304 Stainless Steel. The wheels are high quality plastic castings with industrial bearings and pneumatic tyres. The compressors are industrial grade chromium lined bore, oilless compressors. This allows the unit to be transported in any position. The pumps are Swedish manufactured of cast aluminium, PTFE diaphragms and stainless steel ball valves. The fluid fittings are stainless steel and the guns are brass and aluminium. INDUS 20 has been designed to be solid and reliable with a 1 year parts and labour warranty.

These units have been designed to be robust and reliable to give painters many years of reliable usage.

Maxistrip™ and Indus20 have been developed, and manufactured by Systemax.
Systemax is a solely New Zealand owned and operated company.



Using Maxistrip™ as a PREP-TOOL

Directions for use

Make sure you read the label first and have an SDS sheet with you.

Please keep in mind that we are assuming you are working in conditions which would be conducive to exterior painting. Very cold conditions, wind, rain etc will seriously impair worker productivity and product performance. If you can't apply paint due to the conditions then it is a good indication that it's not going to be efficient to use Maxistrip™.

Lay down a layer of industrial felt (Syntex), then a layer of plastic and our steel catch trays to catch the paint scrapings. The plastic and catch trays will prevent clogging of the Syntex.

Testing a sample area is necessary to determine the wait time 'dwell time'. This is the period required to penetrate the desired layers of paint.

The number of workers and 'dwell time' will dictate the area initially covered. Once the 'dwell time' is over, you can then apply Maxistrip ahead of you. This way you are always working into an area in which Maxistrip™ has had time to function.

Follow the start up guide (supplied) to ready INDUS 20 for spraying. For one person, spray Maxistrip™ on an area approx 3-5 m² ensuring an even coverage.

We recommend that areas sheltered under large surfeits that do not necessarily need to be stripped, be stripped anyway. By the time you have tried to prep them with normal sanding, 9 times out of 10 it's just as fast to incorporate those areas into the stripping process, and as a result you also achieve superior preparation.

Once 'dwell time' has lapsed, scrape off with a tungsten carbide scraper. Most of our clients when dealing with lead base paints take more caution when scraping back a home. They find that using a linbide to feather the paint as they go saves having to sand at the end of the process. This helps to guard against lead that has leached into the timber being released with sanding.

If the coating has cracking into previous paint coats Maxistrip™ has a tendency to penetrate through the cracks. The advantage of this is that in many instances it allows the process to be self levelling back to solid substrate.

Residue paint caught in the drop trays can be scraped into the plastic and disposed of appropriately. Having removed the plastic, the Syntex is left on the ground.

The surfactant in Maxistrip™ will allow inert residue to be removed when washed. Over spray on glass can be removed the same way. Wash off the house with water and a nylon brush or scouring pad (preferred). Some clients wash the house off using a water-blaster. This can work well however only skilled operators should attempt this as there is a significant difference between a water wash and a water blast. The water will flow through the Syntex but small flakes, residue, etc, will be trapped. As a result you have a clean work site, a happy client and less clean-up.

All you need to do is to sand the substrate. No acrylics binding, clogging and not being feathered. Your client gets a far superior paint preparation and you significantly reduce the risk of returning to a job that is peeling and bubbling due the new paint pulling unsound layers off underneath.

We have found that on normal applications one application is sufficient. Under these circumstances **2 - 3 m² per litre** is a realistic expectation however... If lead based paints are present, a second application is almost always necessary; accordingly the **m² per litre** rate will alter.

Testing has indicated that a small **3 bedroom home** can be prepared to solid substrate by **2 people within 2 days** with the use of **40-80 Lt** of Maxistrip (**\$400 - \$800.00**).

Lead Based Paints.

With lead based paint the problem of containment becomes even more vital.

Not only do you need to keep the work place clean, the health and safety of yourself and the client become critical factors. Lead is very invasive and once it has contaminated an area it is very difficult to remove. There are increasing incidences of people becoming very ill and suffering symptoms as serious as brain damage, depression, impaired memory, numbness, muscle weakness, diarrhoea, nausea, from home owners sanding and stripping lead base paints without an awareness of the consequences, or proper safety measures.

Pricing for your client is always a constraint but if your client can afford it, it is best to advise them to do a complete lead paint removal. Some leaching will have occurred into the timber but this way, lead encapsulation is achieved better.

These are important considerations with the removal of lead base paints.

Be very careful if sanding.

Throw the Syntex away at the end of the job.

If you have removed back to solid substrate but not done a complete removal it is often good practice to advise the client that leaching can start to occur through paint coats as time progresses. Fortunately the public are becoming aware of the dangers of lead paint many are now coming to painting professionals to remove it safely for them.

Using Systemax's Maxistrip™ should enable you to remove almost all paint coatings with alacrity and safety, while keeping your prices client friendly.

Impervious Bases

When using Maxistrip™ on steel or other water impervious bases, after application, brush with a hard nylon broom or scourer and then brush off with water. Water blasting can be effective but it is messy and often does not remove the softened layers under the totally denatured layers. (For wood homes etc we recommend a tungsten carbide scraper as the best and most effective removal system.)



Sample House. (Paint Removal to Solid Substrate not complete strip)

This house was built in 1955, it is a three bedroom rimu weatherboard state house. There were three top coats, an undercoat and a primer. There was no lead base on the house. Wooden windows and one set of French doors.

Dimensions were ,

12m long x 8m wide x 3m high.

800mm surfeits.

3 x 100 mm base boards.

164 sq metres.

One application of Maxistrip™ was required. The window rebates were not stripped as weather exposure was minimal. (Rebates seldom require more than clean and light sand).

If stripping rebates, allow for more masking film and time. The house was stripped back and sanded in 18 working hours by 2 people 70%-80% of the home was stripped back to bare timber. 70 litres of paint stripper was used.

Material costs					164 Sq Meters	
Maxistrip™	70 litres	20 litre =	\$ 177.33	excl		\$ 620.67
Tungsten Blades	10 Blades					\$ 60.00
Drop Sheets						
Roll	50m Roll	10 Micron				\$ 18.96
Masking Tape	1 roll x 18 mm	(For masking off guttering when doing fascia.)				\$ 2.48
Masking Paper	288 mm x 50 Mt					\$ 4.54
Tyvek						
Overalls	2 Pair					\$ 32.24
Gloves	4 Pair					\$ 10.84
					Materials	\$ 129.06
					Total	\$ 749.73
					per metre rate	\$ 4.57
					Labour	36 Hrs

With **lead base paints** and homes with many paint layers, at least 2 coats will be required. As a result complete removal can take 2 - 3 times as long and up to twice as much product, in our opinion it would be wise to work on this assumption, until you become conversant with Systemax's working parameters. You will find that windows and doors in particular are so much faster to prep compared to normal sanding. We have clients who will not prepare a window, any other way, no matter what the criteria. Mouldings, railings and finicky bits always use time and product far in excess of there size. So please keep these factors in mind when quoting.

Sample house



PLEASE READ THE PRODUCT SAFETY CARD and SDS OF THIS BOOKLET.

Health and Safety

Though carbon filter negative pressure masks can be used, **ventilation is paramount**. The filters will not last more than several hours at high concentrations. Change filters the moment you smell Maxistrip™. When using internally, unless exceptionally well ventilated, use air fed mask. Wear safety glasses to prevent contact with eyes. Wear gloves, skin exposure is painful and should be avoided. Keep in mind that you may be using Maxistrip™ regularly over the course of your career. Exposure levels should be kept to a minimum. We are aware that the cost of safety gear especially air fed masks can seem expensive, but **all Safety Gear is 100 % Tax Deductible**, we urge you to look after yourself.

NB safe lead base paint removal is not complicated; it is all about simple common sense with safety practices. So be clean, be tidy and be careful and you can perform a successful and safe job.

Environmental Health and Safety

Contact with plants will burn leaves but will not kill roots It has a short troposphere lifetime of approximately six months. Evaporated solvent dissolves in the atmosphere very rapidly; as a result United Nations Environmental Programme does not assign any ozone depletion potential to this product. It is one of the most thoroughly tested of all commonly available industrial solvents. Systemax has designed its systems with these criteria as a guideline. It is often wise to protect yourself by taking a soil sample prior to the job start. This enables you to have a start point for your work and will able you to protect yourself should a complaint of contamination occur.

Working with *any* Paint Removers

Make sure the workers are conversant with the chemical they are using if using chemical strippers.

Obtain from the manufacturer of the chemical a full SDS sheet. Have with you a Product Safety Card.

This is OSH requirement. All the paint remover manufacturers by law must have these in a 16 point format and Environment Protection Authority HSR product coding.

Make sure you have read and understand the SDS Sheet and abide by the recommendations.

Methylene Chloride base Paint Removers.

This is the most common type. It is fast, and cost effective. It is a strong chemical and must be treated with caution. Follow the manufacturer's instructions. Some typical products of this type are: ---Systemax Maxistrip™ 30, Maxistrip™ 240 Selleys Quick Strip, Wattyl Strip Away, etc. Many additives can be found in this type of stripper. Beware of chemicals with Phenols in them, they can be more acutely harmful than ones not containing it, so extra caution must be taken.

Benzyl Alcohol based paint removers.

These are a slower type of paint remover. It can take several hours and sometimes overnight. It is expensive, slow but can be effective. It is dangerous as with all paint removers. You should not atomise it i.e. do not use airless sprayer. Read manufacturers Instruction carefully, Some typical products of this type are: ----- Systemax- MAXISTRIP™ 240 and MAXISTRIP™ 30 Wattyl Removall, Sea to Sky

Pyrrolidine based paint removers

These are not so common, they are slow and expensive. IT IS A REPRODUCTIVE TOXIN. Often one must be wary of the PH of these, it has been known to cause problems if not neutralised and washed very carefully. Read manufacturers instructions some typical products of this type are Peel Away

Personal Safety

You as a painting professional not only do you get exposed to lead but also to the products you use for removing it. Lead dust, lead fume, and chemical fume. Regular lead level tests are important, to insure you remain healthy.



PLEASE READ THE PRODUCT SAFETY CARD and SDS OF THIS BOOKLET.





Ineos Chlor: Methylene Chloride



Methylene Chloride is used as a process solvent in its own right and as a highly versatile solvent for formulation work when mixed with other chemicals. Its excellent combination of chemical and physical properties, including high solvency power, stability and non-flammability and low boiling point, have led to its use in a wide variety of applications and industries for more than 60 years.

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Methylene chloride is used as a process solvent in its own right and as a highly versatile solvent for formulation work when mixed with other chemicals. Probably one of the most thoroughly tested of all commonly available industrial chemicals, methylene chloride represents no risk to health when correctly handled and used in accordance with stipulated emission limits.

An evaluation of the potential environmental impact of Methylene Chloride emissions.

The greater proportion of Methylene Chloride when used in its many applications eventually diffuses into the atmosphere. Methylene chloride has virtually no effect on the primary areas of environmental concern.

Ozone Depletion

With a short tropospheric lifetime of approximately six months, methylene chloride makes no significant contribution to the stratospheric chlorine budget, and therefore to any possible ozone depletion. This is recognised by the United Nations Environmental Programme, which does not assign an ozone depletion potential to methylene chloride.

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Our Ref.. 45848
7 December 2001
Systemax Ltd
P O Box 4041
HAMILTON EAST

Dear Sir

RE: RESIDUES FROM PAINT STRIPPER

We have received various samples for the determination of residues I associated with your paint stripper formulation. From your letter, the residues are likely to be associated with the wax, potassium or ammonium oleate, or oleic acid, as well as remaining thickening agent. (Normally the thickening agent for this type of formulation is a sodium carboxymethyl cellulose).

We have tried to assess the residual material by stripping them off in a 1: 1: 1 solution of methylene chloride/toluene/methanol solution,

Sample	Residue recovered (milligrams/square cm)
Systemax 1900 Houseboard D washed	0.11
Systemax 1900 Houseboard C unwashed	0.30
Blank from rear of board	0.18
Car Bumper	0.013
Toyota Panel	0.073

Infra red examination of the recovered residues showed:

Weatherboards

The extracts from the front of the two weather boards have components absent from the blank, taken from the rear of a board. The peaks that are extra are consistent with there being a level of a higher molecular weight fatty acid, such as oleic acid or similar- However there was no sign of residual wax and the fatty acid may have been present as residues from an old oil-based alkyl paint system that has migrated into the timber.

Car Bumper

The residue from the car bumper had a relatively high level of a waxy hydrocarbon as well as traces of an ester residue. It is also possible that the wax residues may be from car polish formulations,

Toyota Panel

The extract from the Toyota panel showed no sign of wax residues but may have a small quantity of a phenolic compound, possibly from a nonionic detergent.

Yours faithfully,

FLINDERS COOK (TECHNICAL SERVICES) LTD



P.C.A. Bailey M.Sc., Ph.D., M.N.Z.I.C.

Running your Machine

- There is very little to do with regards to the machine. The whole chassis is made of stainless steel.
- Keep unit clean.
- This unit can be used as for pressure feeding paints to pressure fed spray guns i.e. HVLP guns and Automotive
- Please contact us if you are planning to use other chemicals to be advised as to their compatibility.

Start up

1. Slide the intake pipe into Maxistrip
2. Plug in the power and turn on the compressor, wait until it is fully pressurized.
3. Run the compressor to the pump between 70 and 116 psi.
4. Turn the compressor OFF.
5. Slowly open the air valve to the DD pump while holding the gun trigger open (to displace air in the line). If you turn on the air valve to quickly it can cause a back pressure to the intake and prevent fluid pick up.
6. Once fluid is pumping, completely open valve and turn the compressor on. The pump will keep pumping until it is at full pressure.
7. Start spraying. **AT THE END OF A 'SPRAY RUN' TURN THE AIR VALVE OFF.**
8. At the end of the working day, Maxistrip may be left in the lines, **BUT TURN OFF THE SYSTEM AND DEPRESSURISE THE LINE.**
9. When spraying is completed, change the Maxistrip drum to a drum filled with water.
10. Take the tip off the gun and pump Maxistrip left in the line back into the Maxistrip container.
11. As soon as milky water comes through, stop filling into the Maxistrip container and recirculate water back into the water drum.
12. You can either leave the water in the line, but we recommend that when the line is clean, pump the water out of the line by slowing down the pump and lifting the intake pipe out of the water and pumping the line dry.
13. We recommend that at the end of each job that the pump is washed out with hot water (50-70°C).
14. Finally wash the unit with CITRIC ACID in water (1 teaspoons per 5ltrs)
15. Drain any water out of the pressure tank.

Fault Finding

Little should go wrong with these machines. Keep in mind that we are only a call away. Grant @ Systemax (07)9573266

1. Compressor constantly running.
 - Air leaking from the air line.
 - Sticky air relief valve in the compressor.
 - Poor seal on fluid intake pipe at DD pump, causing DD pump to constantly run.
 - Poor seal on fluid outflow connections, causing DD pump to constantly run.
 - Pressure relief valve at control box requires adjusting.
2. Low pressure at the tip.
 - Out of Maxistrip.
 - Blockage on intake pipe.
 - Blockage at the tip.
 - Low air pressure from pump.
 - Kink in fluid hose.
 - Leak at fluid intake connection.
3. DD Pump constantly running, not pressurizing or sucking.
 - Out of Maxistrip.
 - Fluid leak at connections.
 - Leak at fluid intake of DD pump.
 - DD pump pumping to quickly on start up with an empty intake pipe, too much speed on start-up can cause an airlock.
 - If not sucking, slow down the pump so that it is running very slowly. It will pick up.
 - If an air lock has been created in the intake pipe, pull it out of the drum and leave it for a couple of minutes, before starting again. This is the biggest problem for new users. It is one of "you gotta hold your mouth right". Once you have got used to it we rarely have any call backs with this problem.
 - This can also present itself when changing drums. Remove intake pipe when changing and let the stripper drain back into the drum before removing and changing drum. This invariably prevents the problem from happening.
 - Also ensure that the pressure is out of the hose. By depressurizing with the gun and if having trouble, hold the trigger on the gun open while pressurizing (**WITH THE TIP REMOVED**).

Product Safety Card (this is not a Safety Data Sheet)

Systemax **Identification** **MAXISTRIP 30** and **MAXISTRP 240**

Manufactured Systemax Limited

UN No N/A

Hazchem Code NOT REGULATED

Dangerous Class **N/A**

Hazard Classification 6.1D 6.3A 6.4A 6.5B 6.7B 6.8B 6.9B9.1D 9.2B 9.3C

Boiling Point 39 - 60 Celsius

Uses Removal of paint coatings

Appearance Thick opalescent light blue or light green fluid

Flash Point Non Flammable

HAZARDS **Health Information**

Swallowed Harmful is swallowed Burning throat and stomach, nausea, dizziness, vomiting, unconsciousness.

Eyes Moderate to severe irritation

Skin Mild to severe irritation Prolonged contact can cause burns.

Inhaled Dizziness, fatigue, nausea, vomiting. Can lead to unconsciousness, or death. Narcotic effect, (due to methanol content.)

Chronic Long term exposure above PEL levels may result in neurological disorders. Memory loss, vision impairment, balance problems, skin sensitivity.

First Aid

Swallowed Do not induce vomiting. Seek immediate medical intervention. Dilute by drinking water. (Unless unconscious)

Eyes Flush with water for 10 mins minimum Lifting eye lid occasionally Seek medical attention.

Skin Wash with soap and water. Remove contaminated garments.

Inhaled Remove to fresh air. If still in distress seek immediate medical help Give oxygen.

If exposed or concerned Call the National Poisons Centre Call 0800POISON (0800 764 766)

Precautions for use

Skin Wear safety gloves Wear non permeable cover suit.

Eyes Chemical splash resistant eye wear, or face guard

Inhalation **Ventilation** is the best safety measure. Negative pressure safety cartridges are recommended only for short term use in emergency situations. In high concentration environments a full pressure fed mask should be used with clean air supply.

Safe use Designate one user for organization and usage of product. Do not use a system which entails transference of product to another container. Always maintain maximum available ventilation. Ensure you work in an environment where any spillage or residue can be contained.

Flammability Though not flammable contact with intense heat source will cause concentrate fume release

Safe Handling Information

Storage and transport Store in a cool dry well ventilated area. Keep away from food stuffs. Always keep sealed when not in use. Keep away from heat sources.

Spills and Disposal Contain with earth, sand, dispose at proper disposal site. Do not contaminate waterways. Wear mask and protective clothing.

Fire / Explosion Hazard Possibly ignited by high intensity heat sources Fume release is noxious. Self contained breathing apparatus. Full protective clothing. Dry chemical, Foam, Carbon dioxide extinguishers.

Emergency Telephone No **National Poisons Centre ph 0800-764-766** **Location Safety Data Sheet**

Systemax Limited Ph 079 573 266 **Email** grant@systemax.co.nz

Safety Data Sheet

Section 1 - Identification of Chemical Product And Company

Systemax Ltd	Emergency Phone:	0800 764766
	NZ Emergency Services:	111
15 Ellis Street		
Hamilton	Phone:	+64 7 957 3266
NEW ZEALAND	Fax:	+64 7 957 3267

Substance: Paint Stripper
Trade Name: Maxistrip™ 30 and Maxistrip™ 240
Product Use:
Creation Date: 17 March 2013
Revision Date: May 2013

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: HAZARDOUS SUBSTANCE: according to the criteria of HSNO.
NOT REGULATED under NZS5433:2007 Transport of Dangerous Goods on Land

HSNO Signal Word: WARNING

Australian Poisons Schedule

Emergency Overview

Physical Description & colour: viscous light blue opalescent fluid

Odour:

Hazard Classification: 6.1D 6.3A 6.4A 6.5B 6.7B 6.8B 6.9B 9.1D 9.2C 9.3C

Hazard Statements: Harmful if swallowed
Cause skin irritation
Causes eye irritation
May cause an allergic skin reaction
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May cause respiratory irritation
Harmful to aquatic life with long lasting effects
Harmful to the soil environment
Harmful to terrestrial vertebrate

Potential Health Effects

Inhalation:	May be harmful May cause irritation
Skin Contact:	causes irritation May cause an allergic reaction
Eye Contact:	Causes irritation
Ingestion:	Harmful if swallowed

Carcinogen Status:

ASCC: No significant ingredient is classified as carcinogenic by ASCC.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: Contains ingredients that are classified as 2B Possibly Carcinogenic to Humans by IARC

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc. %
Methylene Chloride	75-09-2	<80.0
Methanol	67-56-1	<10
Benzyl Alcohol	100-51-6	<5
Potassium Oleate	143-18-0	<5
Toluene	108-88-3	<4
Ammonia	1336-21-6	<3
Paraffin wax	8002-74-2	<2
Aromatic hydrocarbon	64742-94-5	<1

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764766 from anywhere in New Zealand (13 1126 in Australia) and is available at all times. Have this SDS or product label with you when you call.

Ingestion:	If swallowed do NOT induce vomiting. Immediately seek medical attention. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious
Eye Contact:	If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel
Skin Contact:	If skin contact occurs: Immediately remove all contaminated clothing, including footwear.

Flush skin and hair with running water (and soap if available).

Seek medical attention in event of irritation

Inhalation: If fumes or combustion products are inhaled remove from contaminated area.

Lay patient down. Keep warm and rested.

Prostheses such as false teeth, which may block airway, should be removed, where possible prior to initiating first aid procedures.

Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary

Note to Physician:

For acute and short term repeated exposures to methanol:

Toxicity results from accumulation of formaldehyde/formic acid. Clinical signs are usually limited to CNS, eyes and GI tract severe metabolic acidosis may produce dyspnea and profound systemic effects which may become intractable. All symptomatic patients should have arterial pH measured. Evaluate airway, breathing and circulation.

Stabilise obtunded patients by giving naloxone, glucose and thiamine.

Decontaminate with Ipecac or lavage for patients presenting 2 hours post-ingestion. Charcoal does not absorb well; the usefulness of cathartic is not established

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: decomposes. Contains flammable components

Extinguishing Media: Preferred extinguishing media are dry chemical, Carbon dioxide (CO₂) or foam

Fire Fighting: When fighting fires involving significant quantities of this product, fire-fighters must wear breathing apparatus and protective gloves

Flash point: no data

Upper Flammability Limit: not applicable

Lower Flammability Limit: not applicable

Auto ignition temperature: not available

Fire Decomposition: Carbon monoxide (CO), carbon dioxide (CO₂), Hydrogen Chloride (HCl), Phosgene (COCl₂) and other pyrolysis products of burning organic compounds.

Section 6 - Accidental Release Measures

Accidental release: Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include PVC-coated. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours are likely to build up in the cleanup area, we recommend that you use a respirator. However, if you have any doubts consult the Australian Standard mentioned below (section 8).

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Can be slippery on floors, especially when wet. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services... Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10. Use in well ventilated areas.

Storage: Store in metal can or drum. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

Exposure limits (mg/m ³)	New Zealand		Australia	
	TWA (mg/m ³)	STEL (mg/m ³)	TWA (mg/m ³)	STEL
Methylene chloride	174			
Methanol	262	328		
Toluene	188			

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Eye Protection: Safety glasses with side shields or Chemical goggles are recommended when this product is being used. Spectacles are NOT sufficient. Alternatively a full face mask may replace splash goggles and face shields. Contact lenses may pose a special hazard. Soft contact lenses may absorb and concentrate irritants. In the event of chemical exposure, begin eye irrigation immediately and remove contact lenses as soon as practicable. Lenses should be removed at the first signs of eye redness or irritation – lens should be removed in a clean environment only after workers have washed hands thoroughly.

Skin Protection: You should avoid contact. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials:

Butyl Rubber Poly Vinyl Chloride (PVC)

Respirator: Type AX filter of sufficient capacity

Engineering Controls

- Eyewash unit
- Emergency deluge showers
- Isolated system – closed systems

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.
Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment

Ventilation: This product should only be used where there is ventilation that is adequate to keep exposure below the TWA levels. If necessary, use a fan.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	viscous light blue opalescent fluid
Odour:	
Boiling Point:	39 °C
Melting Point:	no data
Volatiles:	94 ± 2 %
Vapour Pressure:	46.5 kPa @ 20°C
Relative Vapour Density:	2.93
Specific Gravity:	1.1 g/ml
Water Solubility:	partially miscible
pH:	no data
Evaporation Rate:	> 1 (BuAc=1)
Coeff Octanol/water distribution	not available
Auto ignition temp:	no data

Section 10 - Stability and Reactivity

Reactivity: Product is considered stable

Conditions to Avoid: Reacts moisture to form hydrochloric acid, which may corrode and perforate metal containers

Incompatibilities: strong oxidisers

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

CLASSIFICATION OF HAZARDOUS INGREDIENTS

SWALLOWED

Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual

EYE

There is some evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure

SKIN

The material may cause severe inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

Open cuts, abraded or irritated skin should not be exposed to this material.

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.

Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

Inhalation hazard is increased at higher temperatures.

Inhalation exposure may cause susceptible individuals to show change in heart beat rhythm i.e. cardiac arrhythmia.

Acute intoxication by halogenated aliphatic hydrocarbons appears to take place over two stages. Signs of a reversible narcosis are evident in the first stage and in the second stage signs of injury to organs may become evident, a single organ alone is (almost) never involved

CHRONIC HEALTH EFFECTS

There has been concern that dichloromethane can cause cancer or mutations, but there is not enough data to make an assessment.

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

There is some evidence from animal testing that exposure to dichloromethane may result in reduced fertility. Dichloromethane exposures cause liver and kidney damage in animals and this justifies consideration before exposing persons with a history of impaired liver function and/or renal disorders

TOXICITY AND IRRITATION

The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.

Section 12 - Ecological Information

This material and its container must be disposed of as hazardous waste.

Harmful to aquatic organisms with long lasting effects

Harmful to the soil environment

Harmful to terrestrial vertebrates

Avoid release to the environment.

Refer to special instructions/ safety data sheets.

Ingredient	Persistence (H₂O/soil) Mobility	Persistence (air)	Bioaccumulation
Methylene Chloride	LOW HIGH	HIGH	LOW
Methanol	HIGH HIGH		LOW
Toluene	LOW MED	MED	LOW

Section 13 - Disposal Considerations

Disposal: There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. The Hierarchy of Controls seems to be common - the user should investigate: Reduce, Reuse, and Recycle and only if all else fails should disposal be considered. Note that properties of a product may change in use, so that the following suggestions may not always be appropriate. The following may help you in properly addressing this matter for this product. This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to separate the contamination in some way. Only if neither of these options is suitable, consider landfill. Incineration is recommended in an approved incinerator according to local regulations.

Section 14 - Transport Information

Not Regulated

Section 15 - Regulatory Information

All of the disclosed ingredients in this formulation are listed on the NZ Inventory of Chemicals (NZIOC) and the Australian Inventory of Chemicals (AICS)

HSNO Approval: **HSR002679Surface Coatings & Colourants (Toxic [6.7])**

Methylene chloride (CAS 75-09-2) is found on the following regulatory lists

- GESAMP/EHS Composite List - GESAMP Hazard Profiles
- IMO IBC Code Chapter 17: Summary of minimum requirements
- IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
- International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs
- International Council of Chemical Associations (ICCA) - High Production Volume List
- New Zealand Cosmetic Products Group Standard - Schedule 5: Components Cosmetic Products May Contain With Restrictions
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Scheduled Toxic Substances
- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Workplace Exposure Standards (WES)
- OECD List of High Production Volume (HPV) Chemicals
- OSPAR National List of Candidates for Substitution – Norway
- United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments
- WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established
- WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water

Methanol (CAS 67-56-1) is found on the following regulatory lists

- GESAMP/EHS Composite List - GESAMP Hazard Profiles
- IMO IBC Code Chapter 17: Summary of minimum requirements
- IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
- International Council of Chemical Associations (ICCA) - High Production Volume List
- New Zealand Cosmetic Products Group Standard - Schedule 5: Components Cosmetic Products May Contain With Restrictions
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods
- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Workplace Exposure Standards (WES)
- OECD List of High Production Volume (HPV) Chemicals
- OSPAR National List of Candidates for Substitution – Norway
- United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments

Benzyl alcohol (CAS 100-51-6) is found on the following regulatory lists

- GESAMP/EHS Composite List - GESAMP Hazard Profile
- IMO IBC Code Chapter 17: Summary of minimum requirements
- IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
- International Council of Chemical Associations (ICCA) - High Production Volume List
- International Fragrance Association (IFRA) Standards Restricted
- International Fragrance Association (IFRA) Survey: Transparency List
- International Fragrance Association IFRA Standards Annex I
- International Numbering System for Food Additives
- New Zealand Cosmetic Products Group Standard - Schedule 5: Components Cosmetic Products May Contain With Restrictions
- New Zealand Cosmetic Products Group Standard - Schedule 7: Preservatives Cosmetic Products May Contain With Restrictions - Table 1: List of Preservatives Allowed
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods
- New Zealand Inventory of Chemicals (NZIoC)
- OECD List of High Production Volume (HPV) Chemicals

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Please read all labels carefully before using product.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS	Australian Inventory of Chemical Substances
ASCC	Office of the Australian Safety and Compensation Council
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially fire-fighters
HSNO	Hazardous Substances & New Organisms Act
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)

NZIOC

New Zealand Inventory of Chemicals

R-Phrase

Risk Phrase

UN Number

United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

This SDS was prepared by Collievale Enterprises in accord with the ERMA "Code of Practice for the Preparation of Safety Data Sheets" [HSNOCOP 8-1 (2006)]

<http://www.collievale.com> Phone +64 7 5432428 –

End of SDS