



SECTION 1 - IDENTIFICATION OF CHEMICAL PRODUCT AND COMPANY

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Substance: Blend of liquid hydrocarbon and tetrachloroethylene. Presented as an aerosol.
Trade Name: **Miracle Tool**
Product Use: Penetrant and corrosion retardant.
Creation Date: **July, 2007**
Revision Date: **July, 2007**

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: Xn, Harmful. Xi, Irritating. N, Dangerous to the environment. Hazardous according to the criteria of ASCC.

Dangerous according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases: R36, R40, R65, R51/53. Irritating to eyes. Limited evidence of a carcinogenic effect. Harmful: May cause lung damage if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

Safety Phrases: S2, S23, S46, S61, S24/25, S36/37. Keep out of reach of children. Do not breathe vapour or spray mists. If swallowed, contact a doctor or Poisons Information Centre immediately and show this MSDS or label. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Avoid contact with skin and eyes. Wear suitable protective clothing and gloves.

SUSDP Classification: S6

ADG Classification: Class 2.1, (AEROSOLS)

UN Number: 1950

Emergency Overview

Physical Description & colour: Clear, light amber coloured liquid.

Odour: Petroleum odour.

Major Health Hazards: limited evidence of a carcinogenic effect, eye irritant, if aspirated, may cause lung damage.

Potential Health Effects

Inhalation:

Short term exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort. Intentional misuse by deliberately concentrating and inhaling contents of aerosol containers can be harmful or fatal.

Long Term exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short term exposure: Major health effect from this product is misuse of the aerosol function. If sprayed continuously on skin or in eyes, it can cause frostbite.

Long Term exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short term exposure: Available data shows that this product is not harmful. If sprayed directly in the eye, this product will irritate. If spraying is prolonged, it may cause damage through frostbite.

Long Term exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short term exposure: Significant oral exposure is considered to be unlikely. Because of the low viscosity of this product, it may directly enter the lungs if swallowed, or if subsequently vomited. Once in the lungs, it is very difficult to

remove and can cause severe injury or death. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Long Term exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:

ASCC: Perchloroethylene is classified by ASCC as a Class 3 Carcinogen, possibly carcinogenic to humans. See the ASCC website for further details. A web address has not been provided as addresses frequently change.

NTP: Perchloroethylene is classified by NTP as reasonably anticipated to be carcinogenic to humans.

See the NTP website for further details. A web address has not been provided as addresses frequently change.

IARC: Perchloroethylene is classed 2a by IARC - probably carcinogenic to humans.

See the IARC website for further details. A web address has not been provided as addresses frequently change.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc, %	TWA (mg/m ³)	STEL (mg/m ³)
Alkanes, C ₃₋₄	68475-59-2	no data	not set	not set
Kerosene	8008-20-6	80-85	not set	not set
Perchloroethylene	127-18-4	15	340	1020

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

The ASCC 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.

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 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Gently blot away excess liquid. Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: This product is classified as flammable. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog. Foam is the preferred medium for large fires. Ensure that no spillage enters drains or water courses.

Fire Fighting: Immediately evacuate the area of unnecessary personnel.

Flash point: 43°C

Upper Flammability Limit: Not available

Lower Flammability Limit: Not available

Autoignition temperature: No data.

Flammability Class: Flammable

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Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. It should be fitted with a type A cartridge, suitable for organic vapours. Otherwise, not normally necessary.

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. Take suitable precautions eg use of non-sparking equipment to avoid creating sparks or flames which may ignite the spilled material. Leaking gases may form an explosion hazard. Any equipment capable of building an electrostatic charge should be electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. 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. This material may be suitable for approved landfill. 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 MSDS 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.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers and valves periodically for leaks. If you keep more than 25kg of flammable gases, you are probably required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. 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**.

ASCC Exposure limits	TWA (mg/m³)	STEL (mg/m³)
Perchloroethylene	340	1020

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

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.

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: You should avoid contact even with mild skin irritants. 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: rubber, PVC.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being used.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Clear, light amber coloured liquid.
Odour:	Petroleum odour.
Boiling Point:	Not available.
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.

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Volatiles:	No data.
Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	0.9 approx
Water Solubility:	Negligible.
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water distribution:	No data
Autoignition temp:	No data.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry. Keep containers and surrounding areas well ventilated. Keep away from sources of sparks or ignition.

Incompatibilities: acids, bases, strong oxidising agents.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: Polymerisation reactions are unlikely; they are not expected to occur.

Section 11 - Toxicological Information

Local Effects:

Target Organs: There is no data to hand indicating any particular target organs.

Humans exposed to intermediate to high levels of perchloroethylene in air experience eye and respiratory irritation, dizziness, incoordination, and unconsciousness. Animal studies indicate perchloroethylene adversely affects the central nervous system and the liver.

Adverse liver and kidney effects have been observed in workers exposed to perchloroethylene. Prolonged exposure to perchloroethylene can defat the skin, causing irritation, dryness, and dermatitis.

Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Kerosene	Conc>=10%: Xn; R65
Perchloroethylene	Conc>=1%: Xn; R40

Section 12 - Ecological Information

Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment. Insufficient data to be further sure of status.

Perchloroethylene is degraded in the atmosphere by reaction with photochemically produced hydroxyl radicals. The estimated half-life is about 96 days; phosgene and chloroacetyl-chlorides are the major degradation products.

Biota - Bioaccumulation of perchloroethylene in aquatic organisms is not expected to be important based on the bioconcentration factors of 39 for rainbow trout (*Oncorhynchus mykiss*) or 49 for bluegill (*Lepomis macrochirus*).

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 reclaim the product by filtration, distillation or some other means. If neither of these options is suitable, consider controlled incineration, or landfill.

Section 14 - Transport Information

ADG Code: 1950, AEROSOLS

Hazchem Code: 3WE

Special Provisions: SP63, SP190, SP229, SP227

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Issued by: Momar Australia Pty Ltd

Phone: (02) 9831 4311

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

Dangerous Goods Class: Class 2.1, Flammable gases.

Sub Risk: Class #, Sub Risk

Packaging Group: Not set

Packaging Method: No packaging methods specified.

Class 2.1 Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids) (where both flammable liquids and flammable gases are in bulk), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.2 (Non-flammable Non-Toxic gases), 3 (Flammable liquids except where both flammable liquids and flammable gases are in bulk), 6 (Toxic Substances), 8 (Corrosive Substances) 9 (Miscellaneous dangerous goods), Foodstuffs and foodstuff empties.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredients: Kerosene (a liquid hydrocarbon), Perchloroethylene, are mentioned in the SUSDP.

Section 16 - Other Information

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

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 firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
UN Number	United Nations Number

THIS MSDS 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 MSDS 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.

Please read all labels carefully before using product.

This MSDS is prepared in accord with the ASCC document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]

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