

# Permatex Fast Break Super Penetrant

ITW AAMTech

Chemwatch: 5058-77

Version No: 9.1.1.1

Material Safety Data Sheet according to NOHSC and ADG requirements

Chemwatch Hazard Alert Code: 4

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## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

### Product Identifier

Product name	Permatex Fast Break Super Penetrant
Synonyms	PX80052
Proper shipping name	AEROSOLS
Other means of identification	Not Available

### Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation. Application is by spray atomisation from a hand held aerosol pack Water displacing and penetrating fluid, lubricant and rust preventing.
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### Details of the manufacturer/importer

Registered company name	ITW AAMTech	ITW AAMTech
Address	100 Hassall Street 2164 NSW Australia	Unit 2/38 Trugood Drive 2013 New Zealand
Telephone	1800 177 989	+64 9272 1940
Fax	1800 308 556	+64 9272 1949
Website	www.aamtech.com.au	www.aamtech.co.nz
Email	info@aamtech.com.au	info@aamtech.co.nz

### Emergency telephone number

Association / Organisation	Not Available	Not Available
Emergency telephone numbers	1800 039 008	+800 2436 2255
Other emergency telephone numbers	+61 3 9573 3112	Not Available

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture

**HAZARDOUS SUBSTANCE. DANGEROUS GOODS.** According to the Criteria of NOHSC, and the ADG Code.

Poisons Schedule	S5	
Risk Phrases <sup>[1]</sup>	R36/37/38	Irritating to eyes, respiratory system and skin.
	R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R44	Risk of explosion if heated under confinement.
	R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
	R67	Vapours may cause drowsiness and dizziness.
	R62(3)	Possible risk of impaired fertility.
	R12	Extremely flammable.

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**Legend:** 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

**GHS Classification** <sup>[1]</sup> Flammable Aerosol Category 1, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Reproductive Toxicity Category 2, STOT - SE (Resp. Irr.) Category 3, STOT - SE (Narcosis) Category 3, STOT - RE Category 2, Chronic Aquatic Hazard Category 3

**Legend:** 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

**Label elements**

GHS label elements



SIGNAL WORD

**DANGER**

**Hazard statement(s)**

<b>H222</b>	Extremely flammable aerosol
<b>H315</b>	Causes skin irritation
<b>H319</b>	Causes serious eye irritation
<b>H361</b>	Suspected of damaging fertility or the unborn child
<b>H335</b>	May cause respiratory irritation
<b>H336</b>	May cause drowsiness or dizziness
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure
<b>H412</b>	Harmful to aquatic life with long lasting effects
<b>AUH044</b>	Risk of explosion if heated under confinement

**Precautionary statement(s) Prevention**

<b>P201</b>	Obtain special instructions before use.
<b>P210</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>P211</b>	Do not spray on an open flame or other ignition source.
<b>P251</b>	Do not pierce or burn, even after use.

**Precautionary statement(s) Response**

<b>P308+P313</b>	IF exposed or concerned: Get medical advice/attention.
<b>P362</b>	Take off contaminated clothing.
<b>P305+P351+P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P312</b>	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.

**Precautionary statement(s) Storage**

<b>P405</b>	Store locked up.
<b>P410+P412</b>	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
<b>P403+P233</b>	Store in a well-ventilated place. Keep container tightly closed.

**Precautionary statement(s) Disposal**

<b>P501</b>	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
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**Label elements**



Relevant risk statements are found in section 2

**Indication(s) of**

F+, Xn

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## Permatex Fast Break Super Penetrant

danger

## SAFETY ADVICE

S02	Keep out of reach of children.
S09	Keep container in a well ventilated place.
S15	Keep away from heat.
S16	Keep away from sources of ignition. No smoking.
S23	Do not breathe gas/fumes/vapour/spray.
S26	In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
S281	After contact with skin, wash immediately with detergent and plenty of water.
S29	Do not empty into drains.
S33	Take precautionary measures against static discharges.
S35	This material and its container must be disposed of in a safe way.
S36	Wear suitable protective clothing.
S37	Wear suitable gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S39	Wear eye/face protection.
S40	To clean the floor and all objects contaminated by this material, use water and detergent.
S41	In case of fire and/or explosion, DO NOT BREATHE FUMES.
S43	In case of fire use...
S45	In case of accident or if you feel unwell IMMEDIATELY contact Doctor or Poisons Information Centre (show label if possible).
S46	If swallowed, seek medical advice immediately and show this container or label.
S51	Use only in well ventilated areas.
S52	Not recommended for interior use on large surface areas.
S53	Avoid exposure - obtain special instructions before use.
S56	Dispose of this material and its container at hazardous or special waste collection point.
S64	If swallowed, rinse mouth with water (only if the person is conscious).

## Other hazards

	Inhalation, skin contact and/or ingestion may produce health damage*.
	Limited evidence of a carcinogenic effect*.
	Cumulative effects may result following exposure*.
	Repeated exposure potentially causes skin dryness and cracking*.
	May possibly be harmful to the foetus/ embryo*.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

## Substances

See section below for composition of Mixtures

## Mixtures

CAS No	%[weight]	Name
64742-96-7	30-60	<u>solvent naphtha petroleum, heavy aliphatic</u>
64742-89-8.	10-30	<u>solvent naphtha petroleum, light aliphatic</u>
74-98-6	<10	<u>propane</u>
106-97-8.	<10	<u>butane</u>

## SECTION 4 FIRST AID MEASURES

## Description of first aid measures

Eye Contact	If aerosols come in contact with the eyes:
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	<ul style="list-style-type: none"> <li>▶ Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.</li> <li>▶ 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.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If solids or aerosol mists are deposited upon the skin:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Remove any adhering solids with industrial skin cleansing cream.</li> <li>▶ <b>DO NOT use solvents.</b></li> <li>▶ Seek medical attention in the event of irritation.</li> </ul>
<b>Inhalation</b>	<p>If aerosols, fumes or combustion products are inhaled:</p> <ul style="list-style-type: none"> <li>▶ Remove to fresh air.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul> <p>Not considered a normal route of entry.</p>

**Indication of any immediate medical attention and special treatment needed**

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- ▶ Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

Treat symptomatically.

- ▶ Heavy and persistent skin contamination over many years may lead to dysplastic changes. Pre-existing skin disorders may be aggravated by exposure to this product.
- ▶ In general, emesis induction is unnecessary with high viscosity, low volatility products, i.e. most oils and greases.
- ▶ High pressure accidental injection through the skin should be assessed for possible incision, irrigation and/or debridement.

**NOTE:** Injuries may not seem serious at first, but within a few hours tissue may become swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Product may be forced through considerable distances along tissue planes.

**SECTION 5 FIREFIGHTING MEASURES****Extinguishing media**

	<p><b>SMALL FIRE:</b></p> <ul style="list-style-type: none"> <li>▶ Water spray, dry chemical or CO<sub>2</sub></li> </ul> <p><b>LARGE FIRE:</b></p> <ul style="list-style-type: none"> <li>▶ Water spray or fog.</li> </ul>
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**Special hazards arising from the substrate or mixture**

<b>Fire Incompatibility</b>	<ul style="list-style-type: none"> <li>▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</li> </ul>
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**Advice for firefighters**

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> </ul>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Liquid and vapour are highly flammable.</li> <li>▶ Severe fire hazard when exposed to heat or flame.</li> <li>▶ Vapour forms an explosive mixture with air.</li> <li>▶ Severe explosion hazard, in the form of vapour, when exposed to flame or spark.</li> </ul>

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## SECTION 6 ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

Minor Spills	<ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Wear protective clothing, impervious gloves and safety glasses.</li> <li>▶ Shut off all possible sources of ignition and increase ventilation.</li> </ul>
Major Spills	<ul style="list-style-type: none"> <li>▶ Remove leaking cylinders to a safe place if possible.</li> <li>▶ Release pressure under safe, controlled conditions by opening the valve.</li> <li>▶ <b>DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve.</b></li> <li>▶ Clear area of personnel and move upwind.</li> </ul>
	Personal Protective Equipment advice is contained in Section 8 of the MSDS.

## SECTION 7 HANDLING AND STORAGE

## Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> <li>▶ Containers, even those that have been emptied, may contain explosive vapours.</li> <li>▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> <li>▶ Electrostatic discharge may be generated during pumping - this may result in fire.</li> <li>▶ Ensure electrical continuity by bonding and grounding (earthing) all equipment.</li> </ul>
Other information	<ul style="list-style-type: none"> <li>▶ Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can</li> <li>▶ Store in original containers in approved flammable liquid storage area.</li> <li>▶ <b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b></li> <li>▶ No smoking, naked lights, heat or ignition sources.</li> </ul>

## Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> <li>▶ Aerosol dispenser.</li> <li>▶ Check that containers are clearly labelled.</li> </ul>
Storage incompatibility	<p><b>CARE:</b> Water in contact with heated material may cause foaming or a steam explosion with possible severe burns from wide scattering of hot material. Resultant overflow of containers may result in fire.</p> <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>

## PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## Control parameters

## OCCUPATIONAL EXPOSURE LIMITS (OEL)

## INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	propane	Propane	Not Available	Not Available	Not Available	Not Available
Australia Exposure Standards	butane	Butane	1900 mg/m3 / 800 ppm	Not Available	Not Available	Not Available

## EMERGENCY LIMITS


Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
solvent naphtha petroleum, heavy aliphatic	Naphtha, heavy aliphatic solvent	2.6 mg/m3	29 mg/m3	220 mg/m3
solvent naphtha petroleum, light aliphatic	Rubber solvent; (Naphtha (petroleum) light aliphatic)	264 ppm	1700 ppm	10000 ppm
propane	Propane	Not Available	Not Available	Not Available
butane	Butane	Not Available	Not Available	Not Available

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Ingredient	Original IDLH	Revised IDLH
solvent naphtha petroleum, heavy aliphatic	Not Available	Not Available
solvent naphtha petroleum, light aliphatic	Not Available	Not Available
propane	20,000 [LEL] ppm	2,100 [LEL] ppm
butane	Not Available	Not Available

## Exposure controls

Appropriate engineering controls	<p>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.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p>
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</li> </ul>
Skin protection	See Hand protection below
Hands/feet protection	<p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Suitability and durability of glove type is dependent on usage.</p>
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> <li>▶ The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton.</li> <li>▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.</li> </ul> <p>BREThERICK: Handbook of Reactive Chemical Hazards.</p>
Thermal hazards	Not Available

## Recommended material(s)

## GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

The effect(s) of the following substance(s) are taken into account in the

**computer-generated** selection:

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Material	CPI
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\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## Respiratory protection

Type GAX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

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Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 5 x ES	Air-line*	GAX-2 P3	GAX-PAPR-2 P3 ^
up to 10 x ES	-	GAX-3 P3	-
10+ x ES	-	Air-line**	-

\* - Continuous Flow; \*\* - Continuous-flow or positive pressure demand

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Appearance</b>	22aer Brown flammable liquid with a solvent odour; not miscible with water.		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	0.81
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Available	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	>38	<b>Molecular weight (g/mol)</b>	Not Applicable
<b>Flash point (°C)</b>	<-81 propellant	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	<1 BuAC = 1	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	HIGHLY FLAMMABLE.	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	25.1% (VOC - by wt)
<b>Vapour pressure (kPa)</b>	517 (max)	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	>1	<b>VOC g/L</b>	Not Available

## SECTION 10 STABILITY AND REACTIVITY

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>▶ Elevated temperatures.</li> <li>▶ Presence of open flame.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7

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<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

<b>Inhaled</b>	<p>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> <p>Inhalation hazard is increased at higher temperatures.</p>
<b>Ingestion</b>	<p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Not normally a hazard due to physical form of product.</p> <p>Considered an unlikely route of entry in commercial/industrial environments</p> <p>Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce gastrointestinal discomfort and may be harmful if swallowed.</p>
<b>Skin Contact</b>	<p>The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time.</p> <p>Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>Spray mist may produce discomfort</p> <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Aromatic hydrocarbons may produce sensitivity and redness of the skin.</p>
<b>Eye</b>	<p>This material can cause eye irritation and damage in some persons. Not considered to be a risk because of the extreme volatility of the gas.</p> <p>Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged.</p> <p>Aromatic species can cause irritation and excessive tear secretion.</p>
<b>Chronic</b>	<p>Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother.</p> <p>There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>Principal route of occupational exposure to the gas is by inhalation.</p>

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	Not Available	Not Available
solvent naphtha petroleum, heavy aliphatic	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Not Available
solvent naphtha petroleum, light aliphatic	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>	Not Available
propane	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>	Not Available
butane	TOXICITY	IRRITATION
	Oral (rat) LD50: >5000 mg/kg <sup>[1]</sup>	
propane	TOXICITY	IRRITATION
	Inhalation (mouse) LC50: >15.6<17.9 mm/l2 h mm/l2="" <sup>[1]</sup>	Not Available
	Inhalation (mouse) LC50: 410000 ppm2 h <sup>[1]</sup>	
	Inhalation (rat) LC50: >800000 ppm15 min <sup>[1]</sup>	
	Inhalation (rat) LC50: 1354.944 mg/L15 min <sup>[1]</sup>	
	Inhalation (rat) LC50: 1355 mg/l15 min <sup>[1]</sup>	
	Inhalation (rat) LC50: 1442.738 mg/L15 min <sup>[1]</sup>	
	Inhalation (rat) LC50: 1443 mg/l15 min <sup>[1]</sup>	
butane	TOXICITY	IRRITATION
	Inhalation (rat) LC50: 658 mg/L/4H <sup>[2]</sup>	Nil reported

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Legend: Data extracted from European Union Registered Substances - Data coming from RTECS - Register of Toxic Effect of chemical Substances  
Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

<b>Permatex Fast Break Super Penetrant</b>	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.
<b>PROPANE</b>	No significant acute toxicological data identified in literature search.
<b>SOLVENT NAPHTHA PETROLEUM, HEAVY ALIPHATIC &amp; SOLVENT NAPHTHA PETROLEUM, LIGHT ALIPHATIC</b>	<b>for petroleum:</b> This product contains benzene which is known to cause acute myeloid leukaemia and n-hexane which has been shown to metabolize to compounds which are neuropathic. This product contains toluene. There are indications from animal studies that prolonged exposure to high concentrations of toluene may lead to hearing loss. This product contains ethyl benzene and naphthalene from which there is evidence of tumours in rodents <b>Carcinogenicity:</b> Inhalation exposure to mice causes liver tumours, which are not considered relevant to humans.

<b>Acute Toxicity</b>	☐	<b>Carcinogenicity</b>	☐
<b>Skin Irritation/Corrosion</b>	✓	<b>Reproductivity</b>	✓
<b>Serious Eye Damage/Irritation</b>	✓	<b>STOT - Single Exposure</b>	✓
<b>Respiratory or Skin sensitisation</b>	☐	<b>STOT - Repeated Exposure</b>	✓
<b>Mutagenicity</b>	☐	<b>Aspiration Hazard</b>	☐

Legend: ✓ – Data required to make classification available  
✗ – Data available but does not fill the criteria for classification  
☐ – Data Not Available to make classification

## CMR STATUS

Not Applicable

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
propane	LOW	LOW
butane	LOW	LOW

## Bioaccumulative potential

Ingredient	Bioaccumulation
propane	LOW (LogKOW = 2.36)
butane	LOW (LogKOW = 2.89)

## Mobility in soil

Ingredient	Mobility
propane	LOW (KOC = 23.74)
butane	LOW (KOC = 43.79)

## SECTION 13 DISPOSAL CONSIDERATIONS

Continued...

## Permatex Fast Break Super Penetrant

## Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> <li>▶ <b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> </ul>
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## SECTION 14 TRANSPORT INFORMATION

## Labels Required

	
Marine Pollutant	NO
HAZCHEM	2YE

## Land transport (ADG)

UN number	1950				
Packing group	Not Applicable				
UN proper shipping name	AEROSOLS				
Environmental hazard	No relevant data				
Transport hazard class(es)	<table> <tr> <td>Class</td><td>2.1</td></tr> <tr> <td>Subrisk</td><td>Not Applicable</td></tr> </table>	Class	2.1	Subrisk	Not Applicable
Class	2.1				
Subrisk	Not Applicable				
Special precautions for user	<table> <tr> <td>Special provisions</td><td>63 190 277 327 344</td></tr> <tr> <td>Limited quantity</td><td>See SP 277</td></tr> </table>	Special provisions	63 190 277 327 344	Limited quantity	See SP 277
Special provisions	63 190 277 327 344				
Limited quantity	See SP 277				

## Air transport (ICAO-IATA / DGR)

UN number	1950														
Packing group	Not Applicable														
UN proper shipping name	Aerosols, flammable; Aerosols, flammable (engine starting fluid)														
Environmental hazard	No relevant data														
Transport hazard class(es)	<table> <tr> <td>ICAO/IATA Class</td><td>2.1</td></tr> <tr> <td>ICAO / IATA Subrisk</td><td>Not Applicable</td></tr> <tr> <td>ERG Code</td><td>10L</td></tr> </table>	ICAO/IATA Class	2.1	ICAO / IATA Subrisk	Not Applicable	ERG Code	10L								
ICAO/IATA Class	2.1														
ICAO / IATA Subrisk	Not Applicable														
ERG Code	10L														
Special precautions for user	<table> <tr> <td>Special provisions</td><td>A145A167A802; A1A145A167A802</td></tr> <tr> <td>Cargo Only Packing Instructions</td><td>203</td></tr> <tr> <td>Cargo Only Maximum Qty / Pack</td><td>150 kg</td></tr> <tr> <td>Passenger and Cargo Packing Instructions</td><td>203; Forbidden</td></tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td><td>75 kg; Forbidden</td></tr> <tr> <td>Passenger and Cargo Limited Quantity Packing Instructions</td><td>Y203; Forbidden</td></tr> <tr> <td>Passenger and Cargo Limited Maximum Qty / Pack</td><td>30 kg G; Forbidden</td></tr> </table>	Special provisions	A145A167A802; A1A145A167A802	Cargo Only Packing Instructions	203	Cargo Only Maximum Qty / Pack	150 kg	Passenger and Cargo Packing Instructions	203; Forbidden	Passenger and Cargo Maximum Qty / Pack	75 kg; Forbidden	Passenger and Cargo Limited Quantity Packing Instructions	Y203; Forbidden	Passenger and Cargo Limited Maximum Qty / Pack	30 kg G; Forbidden
Special provisions	A145A167A802; A1A145A167A802														
Cargo Only Packing Instructions	203														
Cargo Only Maximum Qty / Pack	150 kg														
Passenger and Cargo Packing Instructions	203; Forbidden														
Passenger and Cargo Maximum Qty / Pack	75 kg; Forbidden														
Passenger and Cargo Limited Quantity Packing Instructions	Y203; Forbidden														
Passenger and Cargo Limited Maximum Qty / Pack	30 kg G; Forbidden														

## Sea transport (IMDG-Code / GGVSee)

UN number	1950				
Packing group	Not Applicable				
UN proper shipping name	AEROSOLS				
Environmental hazard	Not Applicable				
Transport hazard class(es)	<table> <tr> <td>IMDG Class</td><td>2.1</td></tr> <tr> <td>IMDG Subrisk</td><td>Not Applicable</td></tr> </table>	IMDG Class	2.1	IMDG Subrisk	Not Applicable
IMDG Class	2.1				
IMDG Subrisk	Not Applicable				

## SECTION 15 REGULATORY INFORMATION

### Safety, health and environmental regulations / legislation specific for the substance or mixture

solvent naphtha petroleum, heavy aliphatic(64742-96-7) is found on the following regulatory lists	"Australia Hazardous Substances Information System - Consolidated Lists"
solvent naphtha petroleum, light aliphatic(64742-89-8.) is found on the following regulatory lists	"International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft", "Australia Hazardous Substances Information System - Consolidated Lists"
propane(74-98-6) is found on the following regulatory lists	"Australia Exposure Standards", "Australia Hazardous Substances Information System - Consolidated Lists"
butane(106-97-8.) is found on the following regulatory lists	"Australia Exposure Standards", "Australia Hazardous Substances Information System - Consolidated Lists"

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (solvent naphtha petroleum, light aliphatic)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
<b>Legend:</b>	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

## SECTION 16 OTHER INFORMATION

### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

[www.chemwatch.net](http://www.chemwatch.net)

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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