

Permatex High Temperature Threadlocker Red 10ml

ITW AAMTech

Chemwatch: **5058-45** Version No: **8.1.1.1**

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code:

Issue Date: 19/09/2014 Print Date: 24/09/2014 Initial Date: Not Available S.GHS.AUS.EN

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

Product Identifier

Product name	Permatex High Temperature Threadlocker Red 10ml	
Chemical Name	Not Applicable	
Synonyms	PX27200 Permatex High Temperature Threadlocker Red 10ml, PX27240 Permatex High Temperature Threadlocker Red 36ml	
Proper shipping name	Not Applicable	
Chemical formula	Not Applicable	
Other means of identification	Not Available	
CAS number	Not Applicable	

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

Relevant	identified
	uses

Anaerobic adhesive to lock and seal threaded fasteners.

Details of the manufacturer/importer

Registered company name	ITW AAMTech	
Address	100 Hassall Street 2164 NSW Australia	
Telephone	1800 177 989	
Fax	1800 308 556	
Website	www.aamtech.com.au	
Email	info@aamtech.com.au	

Emergency telephone number

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

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable		
GHS Classification ^[1]	Acute Toxicity (Oral) Category 4, Acute Toxicity (Dermal) Category 4, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1, Skin Sensitizer Category 1, STOT - SE (Resp. Irr.) Category 3, Acute Aquatic Hazard Category 1, Chronic Aquatic Hazard Category 1		
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI		

Label elements

Page 2 of 9

Permatex High Temperature Threadlocker Red 10ml

Issue Date: 19/09/2014 Print Date: 24/09/2014

GHS label elements







SIGNAL WORD

DANGE

Hazard statement(s)

H302	Harmful if swallowed
H312	Harmful in contact with skin
H332	Harmful if inhaled
H315	Causes skin irritation
H318	Causes serious eye damage
H317	May cause an allergic skin reaction
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary statement(s): Prevention

P271	Use only outdoors or in a well-ventilated area.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.	
P270	Do not eat, drink or smoke when using this product.	

Precautionary statement(s): Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P310	Immediately call a POISON CENTER/doctor/physician/first aider	
P302+P352	IF ON SKIN: Wash with plenty of water and soap	
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.	

Precautionary statement(s): Storage

-	•
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s): Disposal

P501 Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
24448-20-2	55-75	2,2-bis[4-(2-methacryloxy)ethoxy)phenyl]propane
923-26-2	10-30	2-hydroxypropyl methacrylate
3006-93-7	10-30	N,N'-m-phenylenedimaleimide
80-15-9	<3	cumyl hydroperoxide
67762-90-7	<3	silica, dimethylsiloxane treated

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Chemwatch: 5058-45 Version No: 8.1.1.1

Page 3 of 9

10_ml

Issue Date: 19/09/2014 Print Date: 24/09/2014 **Permatex High Temperature Threadlocker Red**

	 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. Transport to hospital, or doctor.
Ingestion	 If swallowed do NOT induce vomiting. 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. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

Indication of any immediate medical attention and special treatment needed

▶ Seek medical advice.

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- ▶ Water spray or fog.
- Alcohol stable foam.
- Dry chemical powder.
- ▶ Carbon dioxide.

Special hazards arising from the substrate or mixture

Fire Incompatibil	ity
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Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may

Advice for firefighters

Fire Fighting

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- ▶ Prevent, by any means available, spillage from entering drains or water course.
- ▶ Use water delivered as a fine spray to control fire and cool adjacent area.

Fire/Explosion Hazard

- Combustible. Slight fire hazard when exposed to heat or flame.
- ▶ Heating may cause expansion or decomposition leading to violent rupture of containers.
- ▶ On combustion, may emit toxic fumes of carbon monoxide (CO).

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills

- ▶ Remove all ignition sources.
- Clean up all spills immediately. • Avoid breathing vapours and contact with skin and eyes.
- ▶ Control personal contact with the substance, by using protective equipment.

Major Spills

Moderate hazard.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Permatex High Temperature Threadlocker Red 10ml

Issue Date: **19/09/2014**Print Date: **24/09/2014**

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- ▶ Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

Other information

- Polymerisation may occur slowly at room temperature.
- Storage requires stabilising inhibitor content and dissolved oxygen content to be monitored. Refer to manufacturer's recommended levels.
- ▶ DO NOT overfill containers so as to maintain free head space above product.

Conditions for safe storage, including any incompatibilities

Suitable container

- ▶ Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

Storage incompatibility

for multifunctional acrylates:

- Avoid exposure to free radical initiators (peroxides, persulfates), iron, rust, oxidisers, and strong acids and strong bases.
- ▶ Avoid heat, flame, sunlight, X-rays or ultra-violet radiation.
- Storage beyond expiration date, may initiate polymerisation. Polymerisation of large quantities may be violent (even explosive)
- ▶ Polymerisation may occur slowly at room temperature.

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
Permatex High Temperature Threadlocker Red 10ml	Not Available	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
2,2-bis[4-(2- methacryloxy)ethoxy)phenyl]propane	Not Available	Not Available
2-hydroxypropyl methacrylate	Not Available	Not Available
N,N'-m-phenylenedimaleimide	Not Available	Not Available
cumyl hydroperoxide	Not Available	Not Available
silica, dimethylsiloxane treated	Not Available	Not Available

Exposure controls

Appropriate engineering controls

General exhaust is adequate under normal operating conditions.

Personal protection











Eye and face protection

- Safety glasses with side shields; or as required,
- ▶ Chemical goggles.
- 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. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.

Permatex High Temperature Threadlocker Red 10ml

Skin protection	See Hand protection below
Hands/feet protection	Wear chemical protective gloves, e.g. PVC. Wear safety footwear. NOTE: ► The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
Body protection	See Other protection below
Other protection	▶ Overalls.▶ P.V.C. apron.▶ Barrier cream.
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:

Permatex High Temperature Threadlocker Red 10ml

Material	СРІ
TEFLON	С

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

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 10 x ES	A-AUS P3	-	A-PAPR-AUS / Class 1 P3
up to 50 x ES	-	A-AUS / Class 1 P3	-
up to 100 x ES	-	A-2 P3	A-PAPR-2 P3 ^

^ - 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

Appearance	Red liquid with a musty odour; not miscible with water.			
Physical state	Liquid	Relative density (Water = 1)	1.1	
Odour	Not Available	Partition coefficient n-octanol / water	Not Available	
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available	
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available	
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available	
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable	
Flash point (°C)	>93	Taste	Not Available	
Evaporation rate	Not Available	Explosive properties	Not Available	
Flammability	Not Applicable	Oxidising properties	Not Available	
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available	
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	VOC <2 wt%	
Vapour pressure (kPa)	Not Available	Gas group	Not Available	

Permatex High Temperature Threadlocker Red 10ml

Solubility in water (g/L)	Immiscible	pH as a solution(1%)	Not Applicable
Vapour density (Air = 1)	>1	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Polymerisation may occur at elevated temperatures. Polymerisation may be accompanied by generation of heat as exotherm. Process is self accelerating as heating causes more rapid polymerisation. Exotherm may cause boiling with generation of acrid, toxic and flammable vapour.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo. No report of respiratory illness in humans as a result of exposure to multifunctional acrylates has been found. Similarly evidence of systemic damage does not appear to exist.
Ingestion	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. Ingestion may result in nausea, abdominal irritation, pain and vomiting
Skin Contact	Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.
Eye	510r36
Chronic	Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.

Permatex High Temperature	TOXICITY	IRRITATION
Threadlocker Red 10ml	Not Available	Not Available
2,2-bis[4-(2-	TOXICITY	IRRITATION
methacryloxy)ethoxy)phenyl]propane	Not Available	Not Available
	TOXICITY	IRRITATION
	Oral (mouse) LD50: 7964 mg/kg	*
2-hydroxypropyl methacrylate	Oral (rat) LD50: 11,200 mg/kg	
	Oral (rat) LD50: 5050 mg/kg *	
	Not Available	Not Available
N,N'-m-phenylenedimaleimide	TOXICITY	IRRITATION
it,it -iii-phenyleneuillaleilliue		

Permatex High Temperature Threadlocker Red 10ml

	Inhalation (Rat) LC50: 55 mg/m3/4h	[Dupont*]
	Oral (Mouse) LD50: 250 mg/kg	[Dupont]
	Oral (Rat) LD50: 1370 mg/kg	Eye (rabbit): Corrosive Irritant
	Oral (rat) LD50: 2025 mg/kg *	Skin (rabbit): Highly Irritant
	Not Available	Not Available
	TOXICITY	IRRITATION
	Dermal (rat) LD50: 500 mg/kg	Eye (rabbit): 1 mg
cumyl hydroperoxide	Inhalation (rat) LC50: 220 ppm/4h	Skin (rabbit): 500 mg - mild
	Oral (rat) LD50: 382 mg/kg	
	Not Available	Not Available
	TOXICITY	IRRITATION
	Oral (rat) LD50: >5000 mg/kg	[Cabot]
silica, dimethylsiloxane treated		Eyes: 0.7/110 24hr Draize
		non-irritating
		Skin: 0/8 non-irritating
	Not Available	Not Available

Not available. Refer to individual constituents.

N,N'-M-PHENYLENEDIMALEIMIDE

2-HYDROXYPROPYL METHACRYLATE	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. for CAS 963-26-2 2-hydroxypropyl methacrylate NOTE: Allergic contact dermatitis is reported following exposure of guinea pigs (mild) and humans (severe). for CAS 27813-02-1 1-hydroxypropyl methacrylate	
N,N'-M-PHENYLENEDIMALEIMIDE	Data for closely similar product	
CUMYL HYDROPEROXIDE	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Bacterial cell mutagen Equivocal tumorigen by RTECS criteria	
SILICA, DIMETHYLSILOXANE TREATED	For silica amorphous: When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body. Following absorption across the gut, SAS is eliminated via urine without modification in animals and humans. SAS is not expected to be broken down (metabolised) in mammals.	
2,2-BIS[4-(2- METHACRYLOXY)ETHOXY)PHENYLJPROPANE,	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

Permatex High Temperature Threadlocker Red 10ml

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.

Acute Toxicity	v	Carcinogenicity	0
Skin Irritation/Corrosion	~	Reproductivity	0
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0

Legend:

- ✓ Data required to make classification available
- ★ Data available but does not fill the criteria for classification
- 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
Not Available	Not Available	Not Available

Bioaccumulative potential

Ingredient	Bioaccumulation
Not Available	Not Available

Mobility in soil

Ingredient	Mobility
Not Available	Not Available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal

- Recycle wherever possible or consult manufacturer for recycling options.
- ► Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant



HAZCHEM

Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Chemwatch: **5058-45**Version No: **8.1.1.1**

Page 9 of 9 Permatex High Temperature Threadlocker Red 10ml

Issue Date: **19/09/2014**Print Date: **24/09/2014**

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Inland waterways transport (ADNR / River Rhine): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

SECTION 15 REGULATORY INFORMATION

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

2,2-bis[4-(2- methacryloxy)ethoxy)phenyl]propane(24448-20-2) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)", "International Air Transport Association (IATA) Dangerous Goods Regulations"
2-hydroxypropyl methacrylate(923-26-2) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System - Consolidated Lists"
N,N'-m-phenylenedimaleimide(3006-93-7) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)","International Air Transport Association (IATA) Dangerous Goods Regulations"
cumyl hydroperoxide(80-15-9) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)","International Air Transport Association (IATA) Dangerous Goods Regulations","Australia Hazardous Substances Information System - Consolidated Lists"
silica, dimethylsiloxane treated(67762-90-7) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)"

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/references

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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