

Permatex 1000 Plus Exhaust Repair Kit

ITW AAMTech

Chemwatch Hazard Alert Code: 2

Chemwatch: 5060-16

Issue Date: 12/09/2014

Version No: 8.1.1.1

Print Date: 26/05/2015

Material Safety Data Sheet according to NOHSC and ADG requirements

Initial Date: Not Available

S.Local.AUS.EN

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

Product Identifier

| | |
|-------------------------------|---------------------------------------|
| Product name | Permatex 1000 Plus Exhaust Repair Kit |
| Synonyms | PX80334 |
| Other means of identification | Not Available |

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

| | |
|--------------------------|--|
| Relevant identified uses | Repairing mufflers and tailpipes in automotive applications. |
|--------------------------|--|

Details of the manufacturer/importer

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

Emergency telephone number

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

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

| | |
|--------------------|--|
| Poisons Schedule | Not Applicable |
| Risk Phrases | Not Applicable |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI |
| GHS Classification | Not Applicable |

Label elements

| | |
|--------------------|----------------|
| GHS label elements | Not Applicable |
|--------------------|----------------|

| | |
|-------------|----------------|
| SIGNAL WORD | NOT APPLICABLE |
|-------------|----------------|

Hazard statement(s)

Continued...

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Not Applicable

Precautionary statement(s) Prevention**Precautionary statement(s) Response****Precautionary statement(s) Storage****Precautionary statement(s) Disposal****Label elements**

Not Applicable

Relevant risk statements are found in section 2

| Indication(s) of danger | Not Applicable |
|-------------------------|----------------|
|-------------------------|----------------|

SAFETY ADVICE

Not Applicable

Other hazards

| | |
|--|--|
| | Inhalation and/or ingestion may produce health damage*. |
| | May produce discomfort of the eyes, respiratory tract and skin*. |
| | Limited evidence of a carcinogenic effect*. |
| | Cumulative effects may result following exposure*. |

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**Substances**

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|---------------|-----------|---|
| Not Available | 40-50 | inert fillers/water mixture |
| 65997-17-3 | <40 | <u>glass fibre - from continuous filament</u> |
| 7429-90-5 | <40 | <u>aluminium powder coated</u> |

fibreglass cloth impregnated with

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES**Description of first aid measures**

| | |
|---------------------|---|
| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> Gently brush or vacuum off adherent fibres. Wash affected areas thoroughly with water (and soap if available). Seek medical attention if irritation exists and persists. |
| Inhalation | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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. |

Continued...

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- ▶ 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.
- ▶ Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

- ▶ Manifestation of aluminium toxicity include hypercalcaemia, anaemia, Vitamin D refractory osteodystrophy and a progressive encephalopathy (mixed dysarthria-apraxia of speech, asterixis, tremulousness, myoclonus, dementia, focal seizures). Bone pain, pathological fractures and proximal myopathy can occur.
- ▶ Symptoms usually develop insidiously over months to years (in chronic renal failure patients) unless dietary aluminium loads are excessive.
- ▶ Serum aluminium levels above 60 ug/ml indicate increased absorption. Potential toxicity occurs above 100 ug/ml and clinical symptoms are present when levels exceed 200 ug/ml.
- ▶ Deferoxamine has been used to treat dialysis encephalopathy and osteomalacia. CaNa2EDTA is less effective in chelating aluminium.
[Ellenhorn and Barceloux: Medical Toxicology]

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 Incompatibility**

- ▶ Reacts with acids producing flammable / explosive hydrogen (H2) gas
- None known.

Advice for firefighters**Fire Fighting**

- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ Wear breathing apparatus plus protective gloves in the event of a fire.
- ▶ Prevent, by any means available, spillage from entering drains or water courses.
- ▶ Use fire fighting procedures suitable for surrounding area.

Fire/Explosion Hazard

- Decomposition may produce toxic fumes of; hydrogen fluoride, metal oxides/When aluminium oxide dust is dispersed in air, firefighters should wear protection against inhalation of dust particles, which can also contain hazardous substances from the fire absorbed on the alumina particlesMay emit poisonous fumesMay emit corrosive fumes.
- ▶ The material is not readily combustible under normal conditions.

SECTION 6 ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Minor Spills**

- ▶ Clean up all spills immediately.
- ▶ Secure load if safe to do so.
- ▶ Bundle/collect recoverable product.
- ▶ Collect remaining material in containers with covers for disposal.

Major Spills

- ▶ Clean up all spills immediately.
- ▶ Wear protective clothing, safety glasses, dust mask, gloves.
- ▶ Secure load if safe to do so. Bundle/collect recoverable product.

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

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

- ▶ Store away from incompatible materials.

Conditions for safe storage, including any incompatibilities**Suitable container**

- ▶ Polyethylene or polypropylene container.
- ▶ Packing as recommended by manufacturer.

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| | |
|-------------------------|--|
| Storage incompatibility | ▶ Check all containers are clearly labelled and free from leaks. |
| | ▶ Reacts slowly with water. |
| | ▶ CAUTION contamination with moisture will liberate explosive hydrogen gas, causing pressure build up in sealed containers. |
| | ▶ Segregate from alcohol, water. |

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 | aluminium powder coated | Aluminium (metal dust) / Aluminium (welding fumes) (as Al) / Aluminium, pyro powders (as Al) | 10 mg/m ³ / 5 mg/m ³ | Not Available | Not Available | Not Available |

EMERGENCY LIMITS

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|--|---|----------------------|-----------------------|-----------------------|
| glass fibre - from continuous filament | Fibrous glass; (Fiber glass; Glass frit; Synthetic vitreous fibers) | 15 mg/m ³ | 170 mg/m ³ | 990 mg/m ³ |
| aluminium powder coated | Aluminum | 3 mg/m ³ | 33 mg/m ³ | 200 mg/m ³ |

| Ingredient | Original IDLH | Revised IDLH |
|--|---------------|---------------|
| inert fillers/water mixture | Not Available | Not Available |
| glass fibre - from continuous filament | Not Available | Not Available |
| aluminium powder coated | 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"> ▶ Safety glasses with side shields. ▶ 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. |
| Skin protection | See Hand protection below |
| Hands/feet protection | <ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber |
| Body protection | See Other protection below |
| Other protection | <ul style="list-style-type: none"> ▶ Overalls. ▶ Eyewash unit. |
| Thermal hazards | Not Available |

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

Respiratory protection

Not Available

Not Applicable

Continued...

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"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 |
|----------|-----|
|----------|-----|

* 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

| Appearance | Coloured odourless bandage; slightly miscible with water. | | |
|--|---|---|----------------|
| Physical state | Manufactured | Relative density (Water = 1) | Not Available |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Applicable |
| pH (as supplied) | Not Applicable | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Applicable |
| Initial boiling point and boiling range (°C) | Not Applicable | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | Not Available | Taste | Not Available |
| Evaporation rate | Not Applicable | Explosive properties | Not Available |
| Flammability | Not Available | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Applicable | Surface Tension (dyn/cm or mN/m) | Not Applicable |
| Lower Explosive Limit (%) | Not Applicable | Volatile Component (%vol) | Not Applicable |
| Vapour pressure (kPa) | Not Applicable | Gas group | Not Available |
| Solubility in water (g/L) | Partly Miscible | pH as a solution (1%) | Not Applicable |
| Vapour density (Air = 1) | Not Applicable | VOC g/L | Not Available |

SECTION 10 STABILITY AND REACTIVITY

| | |
|------------------------------------|--|
| Reactivity | See section 7 |
| Chemical stability | <ul style="list-style-type: none"> Extremely high temperatures. Product is considered stable and hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 5 |

Continued...

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SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

| | |
|---------------------|---|
| Inhaled | 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. |
| Ingestion | Accidental ingestion of the material may be damaging to the health of the individual. Acute toxic responses to aluminium are confined to the more soluble forms. |
| Skin Contact | Though considered non-harmful, slight irritation may result from contact because of the abrasive nature of the aluminium oxide particles. Thus it may cause itching and skin reaction and inflammation. Open cuts, abraded or irritated skin should not be exposed to this material The material is mildly abrasive and may produce discomfort which results in a temporary skin rash. Discomfort is accentuated by fibre adhering to sweaty skin at higher temperatures. |
| Eye | There is some evidence to suggest that this material can cause eye irritation and damage in some persons. |
| Chronic | Harmful: danger of serious damage to health by prolonged exposure through inhalation. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Animal testing shows long term exposure to aluminium oxides may cause lung disease and cancer, depending on the size of the particle. |

| | | |
|---|--|-------------------|
| Permatex 1000 Plus Exhaust Repair Kit | TOXICITY | IRRITATION |
| | Not Available | Not Available |
| glass fibre - from continuous filament | TOXICITY | IRRITATION |
| | Not Available | Not Available |
| aluminium powder coated | TOXICITY | IRRITATION |
| | Oral (rat) LD50: >2000 mg/kg ^[1] | Not Available |
| Legend: | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's msds. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances | |

| | |
|--|---|
| GLASS FIBRE - FROM CONTINUOUS FILAMENT | The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. There is little evidence for acute toxicity after inhalation of MMMF. Glasswool administered by inhalation produced little pulmonary fibrosis in experimental animals [IARC Monograph 43] The dust has been associated with skin irritation due to the mechanical action of the fibres [CHEMINFO, Sax, ILO ENCYCLOPAEDIA]. Filaments are manufactured to definite fibre diameters; cannot split along their length rather they break across and form small particles not needles [FARIMA]. NOTE: Carcinogenic by RTECS criteria (rat inhalation studies) |
| Permatex 1000 Plus Exhaust Repair Kit & ALUMINIUM POWDER COATED | No significant acute toxicological data identified in literature search. |

| | | | |
|--|---|---------------------------------|---|
| Acute Toxicity | ⊖ | Carcinogenicity | ⊖ |
| Skin Irritation/Corrosion | ⊖ | Reproductivity | ⊖ |
| Serious Eye Damage/Irritation | ⊖ | STOT - Single Exposure | ⊖ |
| Respiratory or Skin sensitisation | ⊖ | STOT - Repeated Exposure | ⊖ |
| Mutagenicity | ⊖ | Aspiration Hazard | ⊖ |

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

Continued...

SECTION 12 ECOLOGICAL INFORMATION**Toxicity**

For Metal:

Atmospheric Fate - Metal-containing inorganic substances generally have negligible vapour pressure and are not expected to partition to air.

Environmental Fate: Environmental processes, such as oxidation, the presence of acids or bases and microbiological processes, may transform insoluble metals to more soluble ionic forms. Environmental processes may enhance bioavailability and may also be important in changing solubilities.

Aquatic/Terrestrial Fate: When released to dry soil, most metals will exhibit limited mobility and remain in the upper layer; some will leach locally into ground water and/ or surface water ecosystems when soaked by rain or melt ice. A metal ion is considered infinitely persistent because it cannot degrade further.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|------------|---------------------------------------|---------------------------------------|
| | No Data available for all ingredients | No Data available for all ingredients |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|------------|---------------------------------------|
| | No Data available for all ingredients |

Mobility in soil

| Ingredient | Mobility |
|------------|---------------------------------------|
| | No Data available for all ingredients |

SECTION 13 DISPOSAL CONSIDERATIONS**Waste treatment methods**

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

SECTION 14 TRANSPORT INFORMATION**Labels Required**

| Marine Pollutant | NO |
|------------------|----------------|
| 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

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

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture**

| | |
|---|--|
| glass fibre - from continuous filament(65997-17-3) is found on the following regulatory lists | "Australia Inventory of Chemical Substances (AICS)", "Australia Hazardous Substances Information System - Consolidated Lists" |
| aluminium powder coated(7429-90-5) is found on the following regulatory lists | "Australia Exposure Standards", "Australia Inventory of Chemical Substances (AICS)", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "Australia Hazardous Substances Information System - Consolidated Lists" |

| National Inventory | Status |
|--------------------|--------|
| Australia - AICS | Y |
| Canada - DSL | Y |

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| | |
|----------------------------------|--|
| China - IECSC | Y |
| Europe - EINEC / ELINCS / NLP | Y |
| Japan - ENCS | N (aluminium powder coated; glass fibre - from continuous filament) |
| Korea - KECI | Y |
| New Zealand - NZIoC | Y |
| Philippines - PICCS | Y |
| USA - TSCA | Y |
| Legend: | <i>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)</i> |

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

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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