1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: PROTITE FIBREGLASS RESIN CATALYST HARDENER 15ML
Synonym(s): PF-FACH015

1.2 Uses and uses advised against

Use(s): CATALYST • CURING AGENT • FIBREGLASS REINFORCEMENT • FIBREGLASS REPAIR

1.3 Details of the supplier of the product

Supplier name: TRADEWARE GROUP PTY LTD
Address: 32 Airds Road, Minto, NSW, 2566, AUSTRALIA
Telephone: 1300 658 494
Fax: 1300 658 453

1.4 Emergency telephone number(s)

Emergency: 13 11 26 (Poisons Information Centre)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO AUSTRALIAN WHS REGULATIONS

GHS classification(s): Flammable Liquids: Category 3
Organic Peroxides: Type C and D
Acute Toxicity: Oral: Category 4
Skin Corrosion/Irritation: Category 1A
Serious Eye Damage / Eye Irritation: Category 1

2.2 Label elements

Signal word: DANGER

Pictogram(s):

Hazard statement(s):

H226: Flammable liquid and vapour.
H242: Heating may cause a fire.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
Prevention statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220 Keep/Store away from clothing/incompatible materials/combustible materials.
P233 Keep container tightly closed.
P234 Keep only in original container.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response statement(s)

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
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 or doctor/physician.
P321 Specific treatment is advised - see first aid instructions.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use appropriate media for extinction.

Storage statement(s)

P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P410 Protect from sunlight.
P411 + P235 Store temperatures not exceeding that specified on the MSDS/label. Keep cool.
P420 Store away from other materials.

Disposal statement(s)

P501 Dispose of contents/container in accordance with relevant regulations.

2.3 Other hazards
No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMETHYL PHTHALATE</td>
<td>131-11-3</td>
<td>205-011-6</td>
<td>30 to 60%</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE PEROXIDE (MEKP)</td>
<td>1338-23-4</td>
<td>215-661-2</td>
<td>&lt;35%</td>
</tr>
<tr>
<td>HYDROGEN PEROXIDE</td>
<td>7722-84-1</td>
<td>231-765-0</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE (MEK)</td>
<td>78-93-3</td>
<td>201-159-0</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>ACETYL ACETONE PEROXIDE</td>
<td>37187-22-7</td>
<td>253-384-9</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator where an inhalation risk exists. Apply artificial respiration if not breathing.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once).

First aid facilities Eye wash facilities and safety shower should be available.

4.2 Most important symptoms and effects, both acute and delayed
Causes severe skin burns and eye damage. Harmful if swallowed.
4.3 Immediate medical attention and special treatment needed
Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media
Water spray or fog, for large quantities. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture
Flammable. Highly reactive oxidising agent (increasing fire intensity). Containers may explode due to violent decomposition at temperatures exceeding 60°C. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, mobile phones, etc when handling. Earth containers when dispensing fluids. May evolve formic, acetic and propanoic acids, and methyl ethyl ketone.

5.3 Advice for firefighters
Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code
2WE
2  Fine Water Spray.
W  Risk of violent reaction or explosion. Wear liquid-tight chemical protective clothing and breathing apparatus. Contain spill and run-off.
E  Evacuation of people in and around the immediate vicinity of the incident should be considered.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all sources of ignition.

6.4 Reference to other sections
See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool (< 27°C), dry, well ventilated area, removed from direct sunlight, incompatible substances, heat or ignition sources and foodstuffs. Contamination with incompatibles may cause fire or explosion. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use. May explode if exposed to heat or shock.

7.3 Specific end use(s)
No information provided.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl phthalate</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>SWA (AUS)</td>
<td>1</td>
<td>1.4</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Methyl ethyl ketone (MEK)</td>
<td>SWA (AUS)</td>
<td>150</td>
<td>445</td>
<td>300</td>
<td>890</td>
</tr>
<tr>
<td>Methyl ethyl ketone peroxide</td>
<td>SWA (AUS)</td>
<td>0.2</td>
<td>1.5 (Peak)</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Biological limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Determinant</th>
<th>Sampling Time</th>
<th>BEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (MEK)</td>
<td>MEK in urine</td>
<td>End of shift</td>
<td>2 mg/L</td>
</tr>
</tbody>
</table>

Reference: ACGIH Biological Exposure Indices

8.2 Exposure controls

Engineering controls

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

PPE

- **Eye / Face**: Wear splash-proof goggles.
- **Hands**: Wear viton (R) or nitrile gloves.
- **Body**: Wear coveralls.
- **Respiratory**: Wear a Type A (Organic vapour) respirator. If sanding dry product, wear a Class P1 (Particulate) respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- **Appearance**: CLEAR AMBER COLOURED LIQUID
- **Odour**: SHARP SWEET ODOUR
- **Flammability**: FLAMMABLE
- **Flash point**: 53°C (Approximately)
- **Boiling point**: NOT AVAILABLE
- **Melting point**: NOT AVAILABLE
- **Evaporation rate**: NOT AVAILABLE
- **pH**: NOT AVAILABLE
- **Vapour density**: NOT AVAILABLE
- **Specific gravity**: 1.14
- **Solubility (water)**: 1 %
- **Vapour pressure**: 50 kPa @ 55°C
- **Upper explosion limit**: NOT AVAILABLE
- **Lower explosion limit**: NOT AVAILABLE
- **Partition coefficient**: NOT AVAILABLE
- **Autoignition temperature**: NOT AVAILABLE
- **Decomposition temperature**: NOT AVAILABLE
- **Viscosity**: NOT AVAILABLE
- **Explosive properties**: NOT AVAILABLE
- **Oxidising properties**: NOT AVAILABLE
- **Odour threshold**: NOT AVAILABLE

9.2 Other information
10. STABILITY AND REACTIVITY

10.1 Reactivity
Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability
Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions
Hazardous polymerization is not expected to occur.

10.4 Conditions to avoid
Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials
Incompatible (violently) with acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), reducing agents (e.g. sulphites), metals resins and flammables/combustibles. HEAT - SHOCK sensitive.

10.6 Hazardous decomposition products
Containers may explode due to violent decomposition at temperatures exceeding 60°C.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Information available for the product:
Harmful if swallowed.

Information available for the ingredient(s):

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral Toxicity (LD50)</th>
<th>Dermal Toxicity (LD50)</th>
<th>Inhalation Toxicity (LC50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMETHYL PHTHALATE</td>
<td>4400 mg/kg</td>
<td>&gt; 4800 mg/kg (rat)</td>
<td>--</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE PEROXIDE (MEKP)</td>
<td>470 mg/kg (mouse)</td>
<td>--</td>
<td>170 ppm/4 hours</td>
</tr>
<tr>
<td>HYDROGEN PEROXIDE</td>
<td>2000 mg/kg (mouse)</td>
<td>1200 mg/kg (mouse)</td>
<td>2000 mg/m³/4 hours</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE (MEK)</td>
<td>2737 mg/kg (rat)</td>
<td>6480 mg/kg (rabbit)</td>
<td>23500 mg/kg (rat)</td>
</tr>
</tbody>
</table>

Skin
Causes severe burns. Contact may result in irritation, redness, pain, rash, dermatitis and severe burns.

Eye
Causes severe burns. Contact may result in irritation, lacrimation, pain, redness and corneal burns with possible permanent eye damage.

Sensitization
Not classified as causing skin or respiratory sensitisation.

Mutagenicity
Not classified as a mutagen.

Carcinogenicity
Not classified as a carcinogen.

Reproductive
Not classified as a reproductive toxin.

STOT – single exposure
Over exposure may result in mucous membrane irritation of the respiratory tract, coughing and possible burns. High level exposure may result in ulceration of the respiratory tract, breathing difficulties, chemical pneumonitis and pulmonary oedema.

STOT – repeated exposure
Not classified as causing organ damage from repeated exposure. Adverse effects are generally associated with single exposure.

Aspiration
Not classified as causing aspiration.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No information provided.

12.2 Persistence and degradability
No information provided.
PROTITE FIBREGLASS RESIN CATALYST HARDENER 15ML

12.3 Bioaccumulative potential
No information provided.

12.4 Mobility in soil
No information provided.

12.5 Other adverse effects
In the atmosphere methyl ethyl ketone peroxide (MEKP) degrades by reaction with photochemically produced hydroxyl radicals. In the absence of oxidation reactions or other degradation processes MEKP may leach into the soil. In water volatilisation, adsorption to sediment and bioconcentration are negligible.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste disposal
Mix components together (small amounts), absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Ensure protective equipment is worn when mixing. Do not seal containers/tins until reaction is complete. Contact the manufacturer/supplier for additional information (if required). Prevent contamination of drains and waterways as environmental damage may result.

Legislation
Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<table>
<thead>
<tr>
<th>LAND TRANSPORT (ADG)</th>
<th>SEA TRANSPORT (IMDG / IMO)</th>
<th>AIR TRANSPORT (IATA / ICAO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Number</td>
<td>3105</td>
<td>3105</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>ORGANIC PEROXIDE TYPE D, LIQUID</td>
<td>ORGANIC PEROXIDE TYPE D, LIQUID</td>
</tr>
<tr>
<td>Transport hazard classes</td>
<td>5.2, 8</td>
<td>5.2, 8</td>
</tr>
<tr>
<td>Packing Group</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
</tbody>
</table>

14.5 Environmental hazards
No information provided

14.6 Special precautions for user
Hazchem code 2WE
GTEPG REFER
EMS F-J, S-R

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Poison schedule Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Classifications
Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

Hazard codes
C Corrosive
F Flammable
O Oxidising
Xi Irritant
Xn Harmful
Risk phrases
R7  May cause fire.
R10 Flammable.
R22 Harmful if swallowed.
R35 Causes severe burns.
R41 Risk of serious damage to eyes.

Safety phrases
S2 Keep out of reach of children.
S14 Keep away from incompatible materials as listed in the reactivity section.
S20 When using, do not eat or drink.
S24/25 Avoid contact with skin and eyes.
S28 After contact with skin, wash immediately with plenty of water.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
S50 Do not mix with incompatible materials.

Inventory listing(s)
AUSTRALIA: AICS (Australian Inventory of Chemical Substances)
All components are listed on AICS, or are exempt.

16. OTHER INFORMATION

Additional information
WORK PRACTICES - SOLVENTS: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.
PROTITE FIBREGLASS RESIN CATALYST HARDENER 15ML

Abbreviations

ACGIH  American Conference of Governmental Industrial Hygienists
CAS #  Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS  Central Nervous System
EC No.  EC No - European Community Number
EMS  Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS  Globally Harmonized System
GTEPG  Group Text Emergency Procedure Guide
IARC  International Agency for Research on Cancer
LC50  Lethal Concentration, 50% / Median Lethal Concentration
LD50  Lethal Dose, 50% / Median Lethal Dose
mg/m³  Milligrams per Cubic Metre
OEL  Occupational Exposure Limit
pH  relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm  Parts Per Million
STEL  Short-Term Exposure Limit
STOT-RE  Specific target organ toxicity (repeated exposure)
STOT-SE  Specific target organ toxicity (single exposure)
SUSMP  Standard for the Uniform Scheduling of Medicines and Poisons
SWA  Safe Work Australia
TLV  Threshold Limit Value
TWA  Time Weighted Average

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

Prepared by

Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmt.com.au

[ End of SDS ]