SAFETY DATA SHEET

Date of Issue: 30th November.2015
Issue Number: 2

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: PM SOLVENT

Other names: Methyl Proxitol, Propylene Glycol Monomethyl Ether, PGME,

USE: Solvent

COMPANY:
Pacific Sphere Limited
P.O. Box 129
Waiuku 2341
tel (09) 296 8965 or (09) 237 1013
fax (09) 296 8969 or (09) 237 1016

Emergency Telephone Numbers:
NATIONAL POISON CENTRE 0800 764 766
POLICE, FIRE, AMBULANCE 111

2. HAZARDOUS IDENTIFICATIONS:

EMERGENCY OVERVIEW

EPA New Zealand Approval Code: HSR001187
HSNO Hazard Classification: 3.1B, 6.4A
Refer to www.epa.govt.nz for Controls for this substance.

Signal word: DANGER

Hazard Statements
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal is swallowed and enters airways.
H316 Causes mild skin irritation.
H319 Causes serious eye irritation.
H432 Toxic to terrestrial vertebrates.

Prevention Statements

P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves and protective eye/face protection.

Response Statements

P101 If medical advice is needed, have product container or label at hand.
P301 + P310 IF SWALLOWED: immediately call a POISON CENTRE or doctor.
P330 Rinse mouth.
P331 Do NOT induce vomiting.

P303 + P361 + P352 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice.

P370 + P378 In case of fire: Use foam, dry chemical or carbon dioxide (CO2).

P391 Collect spillage.

Storage Statement

P403 + P235 Store in well-ventilated place. Keep cool.
P405 Store locked up.

Disposal Statement

P501 Dispose of product to a landfill in accordance with any local regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common name	CAS. No	% w/w
PM SOLVENT	107-98-2	99.5

4. FIRST AID MEASURES

Consult the National Poisons Centre, telephone 0800 764 766 [0800 POISON] or a doctor in every case of suspected poisoning. If medical advice is needed, have product label or container at hand.

INGESTION: Do NOT induce vomiting. Call a Poison Centre or doctor immediately for advice. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

INHALATION: Move person to fresh air and keep warm and at rest until recovered. Ensure those providing assistance are not exposed to vapour hazard. If respiratory irritation, dizziness, nausea or unconsciousness occurs, get immediate medical assistance. If breathing is difficult or has stopped, used mechanical device or mouth to mouth resuscitation.

SKIN: Remove immediately all contaminated clothing and footwear. Wash affected area with plenty of soap and water. If skin irritation occurs, get medical advice. Wash contaminated clothing/footwear before re-use.

EYES: Hold eyes open and rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do after the first 5 minutes. Continue rinsing for at least 15 minutes. Get medical attention if irritation persists.

NOTES TO PHYSICIAN: Treat symptomatically. Risk of aspiration into lungs resulting in chemical pneumonitis which may be fatal. This product or a component, may be associated with cardiac sensitization following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart stimulating substances like epinephrine. Administration of such substances should be avoided.

5. FIRE FIGHTING MEASURES

FLASH POINT: 32 ^{0}C

FLAMMABLE LIMITS: **LFL:** 1.2% v/v **UFL:** 8.0 % v/v

EXTINGUISHING MEDIA: Use dry chemical powder, carbon dioxide, sand or earth for small fires only. Use water fog or mist or alcohol-resistant foam for large fires. Do NOT use water in a jet. Use water spray to disperse vapours.

FIRE & EXPLOSION HAZARDS: Above flash point, vapour-air mixtures are explosive within the flammable limits given above. Vapour is heavier than air and may travel across ground and reach remote ignition sources causing a flashback fire danger. Avoid breathing smoke. Prevent extinguishing water from getting into the aquatic environment.

SPECIFIC HAZARDS: Cool fire exposed containers with large quantities of water.

FIRE-FIGHTING EQUIPMENT: Wear personal protection equipment and in enclosed spaces, self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

SPILLS: Highly flammable liquid. Vapour forms explosive mixture with air. Isolate hazard area and keep unnecessary and unprotected people away from area. Stay upwind and keep out of low lying areas.

Wear appropriate personal protective equipment. Avoid contact with skin and eyes.
Shut off leak if safe to do so. Remove or isolate ignition sources. Contain spill. Avoid run off into drains or sewers. Do not contaminate watercourses or the ground. Take precautions against static discharge. Bound or ground (earth) all equipment. Ventilate contaminated area.

For small spills, absorb with an appropriate material, e.g. vermiculite, and dispose of waste safely in a labelled sealed container for recovery or disposal.

For large spills (more than a drum), recover liquid and transfer by mechanical means to labeled salvage tank that can be sealed for recovery or disposal of product. Allow residues to evaporate. Water can be used to disperse vapors and to clean spill area although prevent water from entering sewers or drains. Remove any contaminated soil and dispose of safely by waste management company.

Large spills to waterways will require specific actions such as containment booms and removal of product from surface of water. Seek advice of specialist.

If contamination of drains, sewers or waterways occurs immediately notify Emergency Services (111).

DISPOSAL: Dispose of contaminated waste or product to an approved enclosed controlled burner or incinerator, or to hazardous landfill in accordance with local regulations.

7. HANDLING AND STORAGE

HANDLING: Read label before use. Use only in well-ventilated areas. Avoid breathing vapors or direct contact with product.
Remove ignition sources. Avoid sparks. Electrostatic charge may be generated during pumping with risk of fire. Restrict line viscosity to avoid generation of electrostatic discharge. Take precautions to use bonded or grounded (earthed) equipment. No Smoking. Do not use compressed air for filling, discharging or handling.
Keep container closed when not in use. Wear personal protective equipment to prevent breathing of and contact with product. Wear suitable chemical resistant gloves and protect eyes from splashes. Wash hands and exposed skin after handling.

STORAGE: Ensure all storage areas have adequate fire-fighting equipment**.** Store in closed original container in a secure cool dry well-ventilated place, away from sunlight, ignition sources, heat, oxidizing agents, and out of reach of children, and away from food, drink and animal foodstuffs.
Take precautions to avoid accumulation of vapours in pits and confined spaces.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES: NZ Workplace Exposure Standard (WES) have been set for components in this substance.

	WES-TWA	WES-STEL
PMA Solvent	100 ppm (369 mg/m3)	150 ppm (553 mg/m^3)

ENGINEERING CONTROLS: Use only in a well-ventilated area. A half-face filter mask suitable for organic gases and vapors (Type A filter material) may be suitable for low concentration level exposures. Otherwise, use full-piece organic vapour respiratory protective equipment. Where air-filtering respirators are unsuitable (e.g. air-borne concentrations are high, risk or oxygen deficiency, confined space) use positive pressure breathing apparatus.

PERSONAL PROTECTIVE EQUIPMENT (PPE): Wear impervious antistatic protective clothing including safety shoes or boots. Wear appropriate chemical resistant gloves, e.g. nitrile, PVA. Avoid contact with eyes. Wear chemical goggles or safety glasses with side shields, if splash or aerosol/mist exposure risk. Refer to the relevant AS/NZ standards for appropriate personal protective equipment. Routinely wash work clothing and protective equipment to remove contaminants. Discard any protective equipment, clothing or footwear that cannot be cleaned.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Clear, colourless
Odour:	Sweet Ether
Boiling point (^{0}C):	125
Flash point (^{0}C):	32
Auto ignition temperature (^{0}C):	290
Vapour pressure (kPa):	1.1 @ 20^{0}C
Density at 20^{0}C, g/cc:	0.92
Solubility in water:	Moderately soluble (5 to 10%)
pH:	Not applicable
Vapour density (air =1):	3.1

10. STABILITY AND REACTIVITY

STABILITY (CONDITIONS TO AVOID): Stable under normal storage and use conditions. Avoid heat, sparks, open flames, ignition sources and contact with incompatible materials.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidising agents, aldehydes, nitric acid, perchloric acid. Violently reacts with potassium-tert-butoxide.

HAZARDOUS DECOMPOSITION PRODUCTS: Dependent on conditions under which decomposition occurs. No decomposition at ambient temperatures.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which might occur if this product is not handled in the recommended manner.

INGESTION: Harmful if swallowed. Symptoms may be abdominal pain and nausea. Aspiration into the lungs can cause chemical pneumonitis which can be fatal.

INHALATION: May cause irritation of upper respiratory tract. Symptoms of overexposure include headache, dizziness, nausea, shortness of breath and vomiting. May cause central nervous system depression and unconsciousness at high concentrations.

SKIN CONTACT: Moderately irritating to skin with symptoms of redness, itching and pain. Prolonged contact may defat the skin, and result in dermatitis.

EYE CONTACT: Vapours can cause eye irritation. Direct contact, e.g. splashes, cause severe pain and irritation.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Animal studies indicate chronic exposures may affect the liver and kidneys. Persons with pre-existing skin disorders, eye problems, impaired respiratory function or central nervous system conditions, may be more susceptible to the effects of this substance.

CANCER INFORMATION: Not classified as carcinogen.

TERATOLOGY (BIRTH DEFECTS) AND REPRODUCTIVE DEFECTS: Not classified.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Not a mutagen.

Toxicological data:
PMA Solvent LD_{50} not determined

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE: This product has been classified as being toxic to terrestrial vertebrates. Methyl isobutyl ketone has low toxicity to fish and aquatic organisms.

MOVEMENT AND PARTITIONING: Product has some solubility in water. If released into soil there is potential to leach into groundwater. There is a minimal tendency to bind to soil and sediment.

DEGRADATION AND PERSISTENCE: Not expected to bio accumulate significantly and is expected to be readily biodegradable. In air is expected to rapidly degrade in air.

ECOTOXICOLOGY: No EEL has been set for this substance.

Ecotoxicity data:
PM Solvent Red winged blackbird oral, LD50 100 mg/kg b.w.

13. DISPOSAL CONSIDERATIONS

Recover and recycle product whenever possible. Dispose of waste in accordance with Regional Authority or local council bylaws.

Ensure empty containers are vented and dry. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send clean dry drums to recycler or metal scrap reclaimer. Do not use empty drums for storing other products.

14. TRANSPORT REGULATIONS

This product is classified as a Dangerous Goods Class 3, Packing Group II.
Please consult the Land Transport Rule: Dangerous Goods 2005, and NZS 5433:2012 Transport of Dangerous Goods on Land for information.

TRANSPORT INFORMATION:

UN Number:	3092
PROPER SHIPPING NAME:	1-Methy -2-Propanol
Class:	3
Sub risk:	-
Packing Group:	III
HAZCHEM:	2Y
Marine Pollutant:	No

15. REGULATORY INFORMATION

Classified as hazardous under the HSNO Act 1996 according to criteria of Minimum Degrees of Hazard (Threshold) Regulations, 2001.
EPA New Zealand Approval Code: HSR001187
Refer to Section 2 for hazardous classifications and to **www.epa.govt.nz** for Controls and Conditions.

16. OTHER INFORMATION

ISSUE DATE: 30th November 2015
REPLACES: SDS dated 1 August 2006
REASONS FOR ISSUE: NZ Format SDS.

ABBREVIATIONS:

CAS No.	Chemical Abstracts Service Number
EPA	Environmental Risk Management Authority
HSNO	Hazardous Substances & New Organisms
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
WES	Workplace Exposure Standard

REFERENCES:

Chemical Classification and Information database; www.epa.govt.nz

Supplier Safety Data Sheet

Before using any product, read its label carefully and ensure that you understand its contents. This information is, to the best of our knowledge and belief, accurate and reliable at the date of publication. The information relates only to the specific material designated and may not be valid for such material if it is used in combination with any other material(s). Pacific Sphere Limited disclaims any liability for loss or damage suffered from the use of this information. This does not affect your statutory rights. It is the user's responsibility to satisfy themselves as to the suitability and completeness of such information for his/her own particular use.

END of SAFETY DATA SHEET