

DY-MARK PB80 WHITE

Chemwatch Independent Material Safety Data Sheet
Issue Date: 3-Sep-2009
C9317EC

CHEMWATCH 4597-88
Version No:4
CD 2009/2 Page 1 of 6

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

DY-MARK PB80 WHITE

SYNONYMS

"metal marking ink"

PROPER SHIPPING NAME

PAINT

PRODUCT USE

Marking ink for metal surfaces. Can be removed in pickling baths.

SUPPLIER

Company: Dy- Mark Pty Ltd
Address:
89 Formation Street
Wacol
QLD, 4076
AUS
Telephone: +61 7 3271 2222
Fax: +61 7 3271 2751

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

POISONS SCHEDULE

None

RISK

Risk Codes

R11

R52/53

R61(2)

Risk Phrases

- Highly flammable.
- Harmful to aquatic organisms may cause long- term adverse effects in the aquatic environment.
- May cause harm to the unborn child.

SAFETY

Safety Codes

S01

S16

S23

S38

S51

S09

S53

S40

S07

S35

S13

S26

S60

Safety Phrases

- Keep locked up.
- Keep away from sources of ignition. No smoking.
- Do not breathe gas/fumes/vapour/spray.
- In case of insufficient ventilation wear suitable respiratory equipment.
- Use only in well ventilated areas.
- Keep container in a well ventilated place.
- Avoid exposure - obtain special instructions before use.
- To clean the floor and all objects contaminated by this material use water.
- Keep container tightly closed.
- This material and its container must be disposed of in a safe way.
- Keep away from food drink and animal feeding stuffs.
- In case of contact with eyes rinse with plenty of water and contact Doctor or Poisons Information Centre.
- This material and its container must be disposed of as hazardous waste.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
ethanol	64-17-5	10-30
propylene glycol monomethyl ether - mixture of isomers	107-98-2	1-10
dibutyl phthalate	84-74-2	<1 [^]
pigment and filler, nonhazardous		20-40
resin, nonhazardous		30-60

continued...

DY-MARK PB80 WHITE

Chemwatch Independent Material Safety Data Sheet
Issue Date: 3-Sep-2009
C9317EC

CHEMWATCH 4597-88
Version No:4
CD 2009/2 Page 2 of 6

Section 4 - FIRST AID MEASURES

SWALLOWED

- - 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.

EYE

- If this product comes in contact with the eyes:
 - 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.

SKIN

- If skin contact occurs:
 - Immediately remove all contaminated clothing, including footwear.
 - Flush skin and hair with running water (and soap if available).

INHALED

- - If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN

- For acute or short term repeated exposures to ethanol:
 - Acute ingestion in non-tolerant patients usually responds to supportive care with special attention to prevention of aspiration, replacement of fluid and correction of nutritional deficiencies (magnesium, thiamine pyridoxine, Vitamins C and K).
 - Give 50% dextrose (50-100 ml) IV to obtunded patients following blood draw for glucose determination.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- - Foam.
- Dry chemical powder.

FIRE FIGHTING

- - Alert Fire Brigade and tell them location and nature of hazard.
 - May be violently or explosively reactive.
- When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 500 metres in all directions.

FIRE/EXPLOSION HAZARD

- - Liquid and vapour are highly flammable.
 - Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Combustion products include: carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.

FIRE INCOMPATIBILITY

- - Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM: ●3YE

PERSONAL PROTECTION

- Glasses:
Chemical goggles.
- Gloves:
PVC chemical resistant type.
- Respirator:
Type ANO Filter of sufficient capacity

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- - Remove all ignition sources.
- Clean up all spills immediately.

MAJOR SPILLS

- - Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.

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

continued...

DY-MARK PB80 WHITE

Chemwatch Independent Material Safety Data Sheet
Issue Date: 3-Sep-2009
C9317EC

CHEMWATCH 4597-88
Version No:4
CD 2009/2 Page 3 of 6

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- - Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- DO NOT allow clothing wet with material to stay in contact with skin.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.

SUITABLE CONTAINER

- - Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.
- For materials with a viscosity of at least 2680 cSt. (23 deg. C).

STORAGE INCOMPATIBILITY

- Propylene glycol monomethyl ether:
 - reacts violently with strong oxidisers, alkalis
 - is incompatible with aliphatic amines, boranes, sulfuric acid, nitric acid, perchloric acid, caustics, isocyanates.
- Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates.
- Avoid strong bases.

STORAGE REQUIREMENTS

- - Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³
Australia Exposure Standards	ethanol (Ethyl alcohol)	1000	1880		
Australia Exposure Standards	propylene glycol monomethyl ether - mixture of isomers (Propylene glycol monomethyl ether)	100	369	150	553
Australia Exposure Standards	dibutyl phthalate (Dibutyl phthalate)		5		

PERSONAL PROTECTION

RESPIRATOR

Type ANO Filter of sufficient capacity

EYE

- - Safety glasses with side shields.
- Chemical goggles.

HANDS/FEET

- - Wear chemical protective gloves, eg. PVC.
 - Wear safety footwear or safety gumboots, eg. Rubber.
- Suitability and durability of glove type is dependent on usage. Factors such as:
- frequency and duration of contact,
 - chemical resistance of glove material,

OTHER

- - Overalls.
- PVC Apron.
- Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
- For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets), non sparking safety footwear.

ENGINEERING CONTROLS

- For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

continued...

DY-MARK PB80 WHITE

Chemwatch Independent Material Safety Data Sheet
Issue Date: 3-Sep-2009
C9317EC

CHEMWATCH 4597-88
Version No:4
CD 2009/2 Page 4 of 6

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

■ Note that all of the monopropylene glycol ethers may exist in two isomeric forms, alpha or beta. The alpha form, which is thermodynamically favored during synthesis, consists of a secondary alcohol configuration.

Coloured flammable liquid with a sweet, fragrant odour; mixes with water.

PHYSICAL PROPERTIES

Liquid.
Mixes with water.

Molecular Weight: Not applicable.
Melting Range (°C): Not available.
Solubility in water (g/L): Miscible
pH (1% solution): Not applicable
Volatile Component (%vol): Not available
Relative Vapour Density (air=1): >1
Lower Explosive Limit (%): Not available
Autoignition Temp (°C): Not available
State: Liquid

Boiling Range (°C): >78
Specific Gravity (water=1): Not available
pH (as supplied): Not applicable
Vapour Pressure (kPa): Not available
Evaporation Rate: Not available
Flash Point (°C): <23
Upper Explosive Limit (%): Not available
Decomposition Temp (°C): Not available
Viscosity: Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

■ - Presence of incompatible materials.
- Product is considered stable.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

■ Vapours may cause dizziness or suffocation.

CHRONIC HEALTH EFFECTS

■ May cause harm to the unborn child.

TOXICITY AND IRRITATION

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

■ for propylene glycol ethers (PGEs):

Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA); tripropylene glycol methyl ether (TPM).

Testing of a wide variety of propylene glycol ethers Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series.

ETHANOL:

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 7060 mg/kg
Oral (human) LDLo: 1400 mg/kg
Oral (man) TDLo: 50 mg/kg
Oral (man) TDLo: 1.40 mg/kg
Oral (woman) TDLo: 256 mg/kg/12 wks
Inhalation (rat) LC50: 20, 000 ppm/10h
Inhalation (rat) LC50: 64000 ppm/4h

■ 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 the epidermis.

IRRITATION

Skin (rabbit):20 mg/24hr- Moderate
Skin (rabbit):400 mg (open)- Mild
Eye (rabbit):100mg/24hr- Moderate
Eye (rabbit): 500 mg SEVERE

PROPYLENE GLYCOL MONOMETHYL ETHER - MIXTURE OF ISOMERS:

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 3739 mg/kg
Inhalation (human) TLo: 3000 ppm
Inhalation (rat) LC50: 10000 ppm/5 h.
Dermal (rabbit) LD50: 13000 mg/kg

■ The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

for propylene glycol ethers (PGEs):

Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA); tripropylene glycol methyl ether (TPM).

Testing of a wide variety of propylene glycol ethers Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of

continued...

DY-MARK PB80 WHITE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 3-Sep-2009

C9317EC

CHEMWATCH 4597-88

Version No:4

CD 2009/2 Page 5 of 6

Section 11 - TOXICOLOGICAL INFORMATION

dermatitis is often characterised by skin redness (erythema) and swelling epidermis.

NOTE: Exposure of pregnant rats and rabbits to the substance did not give rise to teratogenic effects at concentrations up to 3000 ppm. Fetotoxic effects were seen in rats but not in rabbits at this concentration; maternal toxicity was noted in both species.

CARCINOGEN

ethanol	International Agency for Research on Cancer (IARC) Carcinogens	Group	1
---------	--	-------	---

Section 12 - ECOLOGICAL INFORMATION

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
This material and its container must be disposed of as hazardous waste.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulat ion	Mobility
DY- MARK PB80 WHITE		No data		
ethanol		No data		
propylene glycol monomethyl ether - mixture of isomers		No data		

Section 13 - DISPOSAL CONSIDERATIONS

- - Containers may still present a chemical hazard/ danger when empty.
 - Return to supplier for reuse/ recycling if possible.
- Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.
- 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.
 - Recycle wherever possible.
 - Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.

Section 14 - TRANSPORTATION INFORMATION

Labels Required: FLAMMABLE LIQUID

HAZCHEM: ●3YE (ADG7)

ADG7:

Class or division:	3	Subsidiary risk:	None
UN No.:	1263	UN packing group:	II
Special provisions:	163	Packing Instructions:	None
Notes:	None	Limited quantities:	5 L
Portable tanks and bulk containers - Instructions:	T4	Portable tanks and bulk containers - Special provisions:	TP1, TP8, TP28
Packagings and IBCs - Packing instruction:	P001, IBC02	Packagings and IBCs - Special packing provisions:	PP1

Shipping Name: PAINT (including paint, lacquer, enamel, stain, shellac,
varnish, polish, liquid filler and liquid lacquer base)

Land Transport UNDG:

Class or division:	3	Subsidiary risk:	None
UN No.:	1263	UN packing group:	II

Shipping Name: PAINT (including paint, lacquer, enamel, stain, shellac,
varnish, polish, liquid filler and liquid lacquer base)

Air Transport IATA:

Shipping name: PAINT

Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1263	Packing Group:	II
EMS Number:	F- E, S- E	Special provisions:	163 944
Limited Quantities:	5 L	Marine Pollutant:	Not Determined

Shipping Name: PAINT (including paint, lacquer, enamel,
stain, shellac solutions, varnish, polish, liquid filler
and liquid lacquer base) or PAINT RELATED MATERIAL
(including paint thinning or reducing compound)

continued...

DY-MARK PB80 WHITE

Chemwatch Independent Material Safety Data Sheet
Issue Date: 3-Sep-2009
C9317EC

CHEMWATCH 4597-88
Version No:4
CD 2009/2 Page 6 of 6

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: None

REGULATIONS

Regulations for ingredients

ethanol (CAS: 64-17-5) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Illicit Drug Reagents/Essential Chemicals - Ca", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedu", "Chapter 18: List of products to which the Code does not apply", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "IMO Provisional Categorization of Liquid Substances", "International Agency for Research on Cancer (IARC) Carcinogens", "International Air Transport Association Dangerous Goods Regulations", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

propylene glycol monomethyl ether - mixture of isomers (CAS: 107-98-2,1320-67-8,28677-93-2) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for DY-MARK PB80 WHITE (CW: 4597-88)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
propylene glycol monomethyl ether - mixture of isomers	107- 98- 2, 1320- 67- 8, 28677- 93- 2

■ 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.

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.

Issue Date: 3-Sep-2009

Print Date: 4-Sep-2009

This is the end of the MSDS.