

MATERIAL SAFETY DATA SHEET POSITIVE PHOTORESIST 200ML

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	POSITIVE PHOTORESIST 200ML
PRODUCT NO.	PRP200 [EPRP200]
APPLICATION	Manufacture of electrical equipment
SUPPLIER	H K WENTWORTH PTY LIMITED P.O. BOX 339 BROOKVALE, NSW 2100 AUSTRALIA TEL: 02 9938 1566 FAX: 02 9938 1467 GENERAL MANAGER
EMERGENCY TELEPHONE	Tel: 029938 1566 between 8.30am and 5.00pm EST
PROPER SHIPPING NAME	AEROSOLS

2 HAZARDS IDENTIFICATION

RISK PHRASES

R12	Extremely flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

SAFETY PHRASES

S16	Keep away from sources of ignition - No smoking.
S23	Do not breathe vapour/spray.
S25	Avoid contact with eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37	Wear suitable gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
A1	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
A2	Do not spray on a naked flame or any incandescent material.

HAZARD ID 2

The above phrases are the risks associated with the product

PHYSICAL AND CHEMICAL HAZARDS

Aerosol containers can explode when heated, due to excessive pressure build-up. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited.

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE (According to criteria of NOHSC). DANGEROUS GOODS (According to ADG Code).

DG CLASS

Class 2: Gases

PACKING GROUP	N/A
UN NO.	1950

3 COMPOSITION/INFORMATION ON INGREDIENTS

POSITIVE PHOTORESIST 200ML

Name	EC No.	CAS-No.	Content	Classification (NOHSC: 2011)
DIMETHYL ETHER	204-065-8	115-10-6	30-60%	F+;R12
ACETONE	200-662-2	67-64-1	30-60%	F;R11 Xi;R36 R66 R67
1-METHOXY-2-PROPANOL	203-539-1	107-98-2	5-10%	R10 R67
2-METHOXY-1-METHYLETHYL ACETATE	203-603-9	108-65-6	5-10%	R10
BUTYL ACETATE -norm	204-658-1	123-86-4	1-5%	R10 R66 R67
SOLVENT NAPHTHA (petroleum, light)	265-199-0	64742-95-6	<0.5%	Xn;R65. Xi;R37. N;R51/53. R10.

The Full Text for all R-Phrases are Displayed in Section 16

COMPOSITION COMMENTS

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels Ingredients are registered on AICS

4 FIRST-AID MEASURES

NOTES TO THE PHYSICIAN

Treat symptomatically

INHALATION

Move the exposed person to fresh air at once. Get medical attention.

INGESTION

Not relevant.

SKIN CONTACT

Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

SPECIAL FIRE FIGHTING PROCEDURES

Move container from fire area if it can be done without risk.

UNUSUAL FIRE & EXPLOSION HAZARDS

Aerosol cans may explode in a fire.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEAN UP METHODS

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Ventilate well. Absorb in vermiculite, dry sand or earth and place into containers.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

STORAGE PRECAUTIONS

Store at moderate temperatures in dry, well ventilated area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

POSITIVE PHOTORESIST 200ML

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
		ppm	mg/m3	ppm	mg/m3	
1-METHOXY-2-PROPANOL	ES-TWA	100 ppm	369 mg/m3	150 ppm	553 mg/m3	
2-METHOXY-1-METHYLETHYL ACETATE	ES-TWA	50 ppm(Sk)	274 mg/m3(Sk)	100 ppm(Sk)	548 mg/m3(Sk)	
ACETONE	ES-TWA	500 ppm	1185 mg/m3	1000 ppm	2375 mg/m3	
BUTYL ACETATE -norm	ES-TWA	150 ppm	713 mg/m3	200 ppm	950 mg/m3	
DIMETHYL ETHER	ES-TWA				mg/m3	

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

RESPIRATORY EQUIPMENT

Suitable respiratory protection must be used at high concentrations.

HAND PROTECTION

Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear approved chemical safety goggles where eye exposure is reasonably probable.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. **DO NOT SMOKE IN WORK AREA!**

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Aerosol Liquid		
COLOUR	Green		
ODOUR	Characteristic		
VOLATILITY DESCRIPTION	Volatile.		
SOLUBILITY	Insoluble in water		
RELATIVE DENSITY	0.823 @ 20 °C (68 F)	FLASH POINT (°C)	-48 (-54.4F) CC (Closed cup).
AUTO IGNITION TEMPERATURE (°C)	235 (455 F)	FLAMMABILITY LIMIT - LOWER(%)	0.6
FLAMMABILITY LIMIT - UPPER(%)	8.3		

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with acids and alkalis.

11 TOXICOLOGICAL INFORMATION

INHALATION

May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

POSITIVE PHOTORESIST 200ML

SKIN CONTACT

Product has a defatting effect on skin. Prolonged contact may cause dryness of the skin. Prolonged or repeated exposure may cause severe irritation.

EYE CONTACT

Irritating to eyes.

OTHER HEALTH EFFECTS

This substance has no evidence of carcinogenic properties.

ROUTE OF ENTRY

Inhalation:

Name	ETHANOL
Toxic Dose 1 - LD 50	6200-17800 mg/kg (oral rat)
Toxic Dose 2 - LD 50	>20,000 mg/kg (oral-rbt)
Toxic Conc. - LC 50	8000 mg/l/4h (inh-rat)
Name	1-METHOXY-2-PROPANOL
Toxic Dose 1 - LD 50	5200 mg/kg (oral rat)
Toxic Dose 2 - LD 50	11700 mg/kg (oral-mouse)
Name	ACETONE
Toxic Dose 1 - LD 50	5800 mg/kg (oral rat)
Toxic Dose 2 - LD 50	20,000 mg/kg (oral-rbt)
Toxic Conc. - LC 50	76 ppm/4h (inh-rat)
Name	BUTYL ACETATE -norm
Toxic Dose 1 - LD 50	14,100 mg/kg (oral rat)
Name	2-METHOXY-1-METHYLETHYL ACETATE
Toxic Dose 1 - LD 50	3582 mg/kg (oral rat)
Name	SOLVENT NAPHTHA (petroleum, light)
Toxic Dose 1 - LD 50	>6800 mg/kg (oral rat)
Toxic Dose 2 - LD 50	>3000 mg/kg (oral-rbt)
Toxic Conc. - LC 50	>10.2 mg/l/4h (inh-rat)

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Not regarded as dangerous for the environment.

Name	ETHANOL
LC 50, 96 Hrs, FISH mg/l	8140
EC 50, 48 Hrs, DAPHNIA, mg/l	9268
IC 50, 72 Hrs, ALGAE, mg/l	>5000
Name	1-METHOXY-2-PROPANOL
LC 50, 96 Hrs, FISH mg/l	20800
EC 50, 48 Hrs, DAPHNIA, mg/l	23300
Name	ACETONE
LC 50, 96 Hrs, FISH mg/l	5540
EC 50, 48 Hrs, DAPHNIA, mg/l	39
Degradability	
The product is easily biodegradable.	
Name	BUTYL ACETATE -norm
LC 50, 96 Hrs, FISH mg/l	>96
EC 50, 48 Hrs, DAPHNIA, mg/l	72.8
IC 50, 72 Hrs, ALGAE, mg/l	674
Name	2-METHOXY-1-METHYLETHYL ACETATE
LC 50, 96 Hrs, FISH mg/l	161
EC 50, 48 Hrs, DAPHNIA, mg/l	408
Name	SOLVENT NAPHTHA (petroleum, light)
LC 50, 96 Hrs, FISH mg/l	3.77
EC 50, 48 Hrs, DAPHNIA, mg/l	7.4

POSITIVE PHOTORESIST 200ML

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION



PROPER SHIPPING NAME	AEROSOLS		
UDF Phrase 1	Class 2.1: Flammable gases		
Class 2.1: Flammable gases			
UN NO.	1950	ADG CLASS NO.	2
DG CLASS	Class 2: Gases	PACKING GROUP	N/A
TUNNEL RESTRICTION CODE	(D)	ADG LABEL NO.	2.1
UN NO. SEA	1950	IMDG CLASS	2.1
IMDG PACK GR.	N/A	EMS	F-D, S-U
MARINE POLLUTANT	No.	UN NO. AIR	1950
AIR CLASS	2.1	AIR PACK GR.	N/A

15 REGULATORY INFORMATION

LABELLING



Irritant



Extremely Flammable

RISK PHRASES

R12	Extremely flammable.
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POISONS SCHEDULE NUMBER NONE

NATIONAL REGULATIONS AND REFERENCES

- National Model Regulations for the Control of Workplace Hazardous Substances.
- National Code of Practice for the Control of Workplace Hazardous Substances.
- National Code of Practice for the Labelling of Workplace Substances.
- National Code of Practice for the Preparation of Material Safety Data Sheets.
- Approved Criteria for Classifying Hazardous Substances.

POSITIVE PHOTORESIST 200ML

Exposure Standards for Atmospheric Contaminants in the Occupational Environment.
Australian Dangerous Goods Code. The Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

16 OTHER INFORMATION

ISSUED BY

Helen O'Reilly

REVISION DATE NOVEMBER 2010

REV. NO./REPL. SDS 3

GENERATED

SDS NO. 10540

RISK PHRASES IN FULL

- R12 Extremely flammable.
- R10 Flammable.
- R65 Harmful: may cause lung damage if swallowed.
- R11 Highly flammable.
- R36 Irritating to eyes.
- R37 Irritating to respiratory system.
- R66 Repeated exposure may cause skin dryness or cracking.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R67 Vapours may cause drowsiness and dizziness.

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.