

MATERIAL SAFETY DATA SHEET ELECTRONIC CLEANING SOLVENT PLUS (COMBI)

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

PRODUCT NAME ELECTRONIC CLEANING SOLVENT PLUS (COMBI)
PRODUCT NO. ECSP-db
EECSP200DB
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 (PENTANE)

2 HAZARDS IDENTIFICATION

RISK PHRASES

R12 Extremely flammable.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

SAFETY PHRASES

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.
S2 Keep out of the reach of children.
S9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S23 Do not breathe vapour/spray.
S37 Wear suitable gloves.
S51 Use only in well-ventilated areas.

The above phrases are the risks associated with the product

ENVIRONMENT

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Dispose of waste and residues in accordance with local authority requirements.

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

Name	EC No.	CAS-No.	Content %	Classification (67/548)
PENTANE	203-692-4	109-66-0	60-80%	F+;R12 Xn;R65 R66 R67 N;R51/53

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1,1,1,2-TETRAFLUOROETHANE R134A	212-377-0	811-97-2	10-30%	-
PROPAN-2-OL	200-661-7	67-63-0	1-5%	F;R11 Xi;R36 R67
DIMETHYL ETHER	204-065-8	115-10-6	1-5%	F+;R12

The Full Text for all R-Phrases is 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. Keep the affected person warm and at rest. Get prompt medical attention. Get medical attention.

INGESTION

Immediately rinse mouth and provide fresh air.

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

Absorb in vermiculite, dry sand or earth and place into containers. Ventilate well.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Provide good ventilation.

STORAGE PRECAUTIONS

Store at moderate temperatures in dry, well ventilated area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
		ppm	mg/m3	ppm	mg/m3	
1,1,1,2-TETRAFLUOROETHANE R134A	ES-TWA	1000	4240			
DIMETHYL ETHER	ES-TWA				mg/m3	
PENTANE	ES-TWA					
PROPAN-2-OL	ES-TWA	400	983	500	1230	

INGREDIENT COMMENTS

Australian exposure limits are: LT= ES-TWA and ST= ES STEL

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RESPIRATORY EQUIPMENT

If ventilation is insufficient, suitable respiratory protection must be provided.

HAND PROTECTION

Protective gloves must be used if there is a risk of direct contact or splash. 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. 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	Colourless
ODOUR	Characteristic
PHYSICAL DATA COMMENTS	Information given concerns the major ingredient.
VOLATILITY DESCRIPTION	Volatile.
SOLUBILITY	Immiscible with water
BOILING POINT (°C)	36 (96.8 F)
MELTING POINT (°C)	-130 (-202 F)
RELATIVE DENSITY	0.650 @ 20 °c (68 F)
BULK DENSITY	650 kg/m ³
VAPOUR PRESSURE	5.33 kPa @ 19 °c (66.2 F)
FLASH POINT (°C)	- 48 (-54.4 F) CC (Closed cup).
AUTO IGNITION TEMPERATURE (°C)	309 (588.2 F)
FLAMMABILITY LIMIT - LOWER(%)	1.4
FLAMMABILITY LIMIT - UPPER(%)	7.8

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.

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	PENTANE
Toxic Dose 1 - LD 50	>2000 mg/kg (oral rat)
Toxic Dose 2 - LD 50	446 mg/kg (ivn-mouse)
Toxic Conc. - LC 50	364,000 mg/m ³ /30h (inh-rat)

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Name	PROPAN-2-OL
Toxic Dose 1 - LD 50	5045 mg/kg (oral rat)
Toxic Dose 2 - LD 50	3600 mg/kg (oral-mouse)
Toxic Conc. - LC 50	47-73 mg/l/4h (inh-rat)

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment if discharged into watercourses.

Name	PROPAN-2-OL
LC 50, 96 Hrs, Fish mg/l	9600
EC 50, 48 Hrs, Daphnia, mg/l	10000

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 (PENTANE)
ADG CLASS	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
UN NO. AIR	1950
AIR CLASS	2.1
AIR PACK GR.	N/A

15 REGULATORY INFORMATION

LABELLING



Extremely Flammable



Dangerous for the environment

RISK PHRASES

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S37	Wear suitable gloves.
S51	Use only in well-ventilated areas.

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.
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. 10355

RISK PHRASES IN FULL

R12	Extremely flammable.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable.
R36	Irritating to eyes.
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.