

Sicrys™ PC60DB-1

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Complying with 1907/2006/EEC Regulation of 18 December 2006 ("REACH Regulation") and REGULATION (EC) No 1272/2008 (CLP)

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

1.1 Product identifier

Product name: Sicrys™ PC60DB-1
Trade name: Sicrys™ PC60DB-1
Product type: Copper ink

1.2 Relevant identified uses of the substance or mixture and uses advised against

Ink.

1.3 Details of the supplier of the safety data sheet

P.V. Nano Cell Ltd.

P.O.Box 236, Migdal Ha'Emek, Israel 23100

Phone: +972-4-6546881 Fax: +972-4-6546880

E-mail address of person responsible for this SDS: N/A

1.4 Emergency telephone number

Emergency telephone number (with hours of operation):

National Information & Response Center: in Israel *6911 or 08-9253321

Outside Israel: +972 8 925 3321

infocenter@sviva.gov.il

Section 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC (DSD) or 1999/45/EC

Product name	EU Classification
Sicrys™ PC60DB-1	Xi; R36

For the full text of the H-Statements and R-phrases mentioned in this Section, see Section 16.

2.2 Label elements

Labelling in accordance with 1999/45 (DPD) Hazard symbol(s):



Warning

Risk phrase(s):

Xi: Irritant

R36: Irritant to eyes

Hazard statement(s):

H319: Causes serious eye irritation



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Precautionary statement(s):

P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

2.3 Other hazard

None

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation:

Product/ Ingredient name	Identifiers	%	EU Classification
Copper	CAS number: 7440-50-8 EC number: 231-159-6	55-65	Not classified
Diethylene glycol monobutyl ether (DGBE)	CAS number: 112-34-5 EC number: 203-961-6	35-45	Xi; R36

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in section 8. See section 16 for the full text of the R-phrases declared above.

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

Eyes contact: In case of contact with eyes, rinse thoroughly with plenty of water for at least 15

minutes and consult a physician.

Skin contact: Wash off with soap and plenty of water. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person.

Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

<u>Suitable</u>: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Not suitable: N/A



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5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters: Wear self contained breathing apparatus for firefighting if necessary.

5.4 Further information

No further information.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Large spill: As for small spill

6.4 Reference to other sections

See Section 13 for disposal information.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.

<u>7.3 Specific end use(s)</u>: A part from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8: EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit values:

Ingredient name	Occupational exposure limits
Copper	ACGIH-TLV 0.2 mg(Cu)/m³ (TWA), fume
	ACGIH-TLV 1 mg(Cu)/m³ (TWA), dust and mist

8.2 Exposure controls

Person Protective measures

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face



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supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

<u>Eye/face protection:</u> Wear protective safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government stands such as NIOSH (US) or EN 166(EU).

Skin protection: Wear appropriate long-sleeved clothing to minimize skin contact.

Hand protection: Wear protective disposable gloves to prevent skin exposure.

Environmental exposure controls: Do not let product enter drains.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Dark red (Burgundy) liquid

Odour: N/A

Odour threshold: N/A

pH: N/A

Melting point/Freezing point: ~ -68°C (Solvent)
Initial boiling point/boiling range: ~ 231°C (Solvent)

Flash point: 99°C, - closed cup (Solvent) Evaporation rate (butyl acetate=1): N/A

Flammability: N/A

Upper/lower flammability or explosive limits: LEL: 0.9% (V) (Solvent); UEL: 6.2% (V) (Solvent)

Vapor pressure: 40 hPa @ 130°C (Solvent)

Vapor density (Air=1): 5.6 (Solvent) Relative Density (H₂O=1): N/A

Solubility (ies): N/A

Partition coefficient Octanol/Water: N/A

Auto-ignition temperature: N/A Decomposition temperature: N/A

Viscosity: N/A

Explosive properties: N/A Oxidizing properties: N/A

9.2 Other information

Surface tension: 32.8 mN/m at 20°C (Solvent)

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

The product is stable under normal handling and storage conditions described in Section 7.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Heat, flames and sparks. May form peroxides of unknown stability.



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10.5 Incompatible materials

Strong oxidizing agents, strong acids and strong bases. Light metals.

10.6 Hazardous Decomposition products

Not available

In the event of fire: see section 5

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Product/ingredient name	Test	Species	Dose
Diethylene glycol monobutyl ether	LD50, Oral	Rat	>7.000 mg/kg
Copper	LD50, oral	Mouse	>5000 mg/kg

Skin corrosion/Irritation:

Skin – Rabbit

Result: Mild skin irritation – 1h (OECD Test Guideline 404)

Serious eye damage/eye irritation:

Eyes - Rabbit

Result: Irritating to eyes (OECD Test Guideline 405)

Corrosivity: N/A

Sensitization: N/A

Repeated dose toxicity: N/A

Carcinogenicity: N/A

Mutagenicity: N/A

Reproductive toxicity: N/A.

Other information: Not available

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

12.1 TOXICILY			
Product/ingredient name	Test	Species	Dose
Diethylene glycol monobutyl ether	LC50, Static test	Fish – Lepomis macrochirus	1.3 mg/kg – 96h
Diethylene glycol monobutyl ether	EC50, Static test	Algea – Desmodesmus subspicatus	100 mg/l – 96h
Diethylene glycol monobutyl ether	LC50	Bacteria – Pseudomonas putida	1.170 mg/l – 16h



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12.2 Persistence and Degradability

Biodegradability:

Product/ingredient name	Test	Result	
Diethylene glycol monobutyl ether	Aerobic – exposure time 28 d	91.7% - Readily biodegradable	

12.3 Bioaccumulative potential

N/A

12.4 Mobility in soil

N/A

12.5 Results of PBT and vPvB assessment

N/A

12.6 Other adverse effects

N/A

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Packing

Empty containers should be taken for local recycling, recovery or waste disposal.

Section 14: TRANSPORT INFORMATION

14.1 Un number

ADR/RID: - IMDG: - IATA: -

14.2 Proper shipping name

ADR/RID: Not regulated

IMDG: Not regulated

IATA: Not regulated

14.3 Transport hazard class(es)

<u>ADR/RID:</u> - <u>IMDG:</u> - <u>IATA:</u> -

14.4 Packing group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazard

ADR/RID: - IMDG: - IATA: -

14.6 Special precautions for user

Not available

Additional information



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ADR/RID: - IMDG: - IATA: -

14.7 Transport to bulk according to Annex II of MARPOL 79/78 and the IBC Code

Not available

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Directives 67/548/EEC and 1999/45/EC (including amendments)

EU Regulation (EC) No.1907/2006 (REACH)

15.2 Chemical safety assessment

N/A

Section 16: OTHER INFORMATION

Full text H-statements referred to under sections 2 and 3.

Eye Irrit. Eye irritation

H319 Causes serious eye irritation

Full text of R-phrases referred to under sections 2 and 3.

Xi Irritant

R36 Irritant to eyes.

Training advice: Before using/handling the product one must read carefully present MSDS.

Recommended restriction: N/A

Key Legend Information:

ACGIH- American Conference of Governmental Industrial Hygienists

OSHA- Occupational Safety and Health Administration

NTP- National Toxicology program

IARC- International Agency for Research on Cancer

ND- Not Determined N/A- Not available

R-phrases- Risk phrases

S-phrases- Safety phrases

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Version no. 1

To the best of our knowledge the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.