

Sicrys[™] IC50TM-8

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™ IC50TM-8 Trade name: Sicrys™ IC50TM-8 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:

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™ IC50TM-8	Not classified

2.2 Label elements

Labelling in accordance with 1999/45 (DPD)

Hazard symbol(s): Not required Risk phrase(s): Not classified

Safety phrase(s): Not required

2.3 Other hazard

None

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation:



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Product/ Ingredient name	Identifiers	%	EU Classification
Copper	CAS number: 7440-50-8 EC number: 231-159-6	45-58	Not classified
Triethylene glycol monomethyl ether (TGME)	CAS number: 112-35-6 EC number: 203-962-1	42-55	Not classified

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 immediately with water and seek medical advice

Skin contact: In case of contact with skin wash off immediately with soap and plenty of water, and

seek medical advice.

Inhalation: Remove from site of exposure to fresh air. If breathing is difficult, give oxygen.

If not breathing give artificial respiration. Get medical attention.

Ingestion: Wash mouth thoroughly with plenty of water and give water to drink. Get medical

attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (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-resistance foam, dry chemical or carbon dioxide. <u>Not suitable:</u> N/A

5.2 Special hazards arising from the substance or mixture

Copper oxides.

5.3 Advice for firefighters

Special protective equipment for fire fighters: Fire fighters should wear full protective clothing and self-contained breathing apparatus in positive pressure mode.

Section 6: ACCIDENTAL RELEASE MEASURES



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6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ventilate area of spill. Avoid breathing fumes.

6.2 Environmental precautions

Do not let this chemical enter the environment. Keep away from drains, surface and ground water.

6.3 Methods and materials for containment and cleaning up

Absorb the chemical onto sand, vermiculite, or any other non-combustible absorbent, and collect into containers for later disposal.

Large spill: As for small spill

Personal Protection in Case of Large Spill: Safety glasses. Full suit. Suitable respirator. Boots. Gloves. A self- contained breathing apparatus should be used to avoid inhalation of the product.

6.4 Reference to other sections

See Section 1 for emergency contact information.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling: Do not breathe vapors. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Wash thoroughly after handling. Keep away from heat and sources of ignition.

Hygiene Measures: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information measures.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Keep in a dry and cool place away from direct light.

7.3 Specific end use(s): N/A

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)/m ³ (TWA), fume
	ACGIH-TLV 1 mg(Cu)/m ³ (TWA), dust and mist

8.2 Exposure controls

Engineering Measures

Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Person Protective measures

<u>Respiratory protection:</u> Suitable respirator. Be sure to use an approved/certified or equivalent. Wear appropriate respirator when ventilation is inadequate.

Eye/face protection: Wear protective safety glasses, goggles.

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



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

Environmental exposure controls: Not available

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: -74.59°C at 1.013 hPa (Solvent) Initial boiling point/boiling range: ~122°C at 13 hPa (Solvent)

Flash point: 110°C, closed cup (Solvent)

Evaporation rate: N/A Flammability: N/A

Upper/lower flammability or explosive limits: N/A

Vapor pressure: N/A Vapor density: N/A Relative Density: 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: N/A

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients

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

Note available.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous Decomposition products:

Not available



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Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Product/ingredient name	Test	Species	Dose
Copper	LD50, oral	Mouse	>5000 mg/kg
Triethylene glycol monomethyl ether	LD50, oral	Rat	>10.50 mg/kg - 96

Irritation: N/A

Corrosivity: N/A

Sensitization: N/A

Repeated dose toxicity: N/A

Carcinogenicity: N/A

Mutagenicity: N/A

Toxicity for reproduction: N/A

Other effects: Not available

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

N/A

12.2 Persistence and Degradability

N/A

12.3 Bioaccumulative potential

N/A

12.4 Mobility in soil

N/A

12.5 Results of PBT and vPvB assessment

Not applicable

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.



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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

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

14.5 Environmental hazard

ADR/RID: - IMDG: - IATA: -

14.6 Special precautions for user

Not available

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

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



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ND- Not Determined N/A- Not available R-phrases- Risk phrases S-phrases- Safety phrases

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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.