



MATERIAL SAFETY DATA SHEET

Product Name:

Thermal Solvent Inkjet Ink

Product Code:

PHARMAtij ® 1.0

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

<i>Product Name</i>	Thermal Solvent Inkjet Ink
<i>Product Code</i>	PHARMAtij ® 1.0
<i>General Use</i>	Ink Jet Printing Ink
<i>Manufacturer</i> Business Hours: 8.30 am – 5.00pm (US time) Monday to Friday	Digital Ink Technologies Pty Ltd Factory 1&2, 74 Mason Street Campbellfield, Victoria, Australia Telephone: +613 93575533 Facsimile: +613 93575588
<i>Poison Information (24 hours)</i>	+613 93575533

2. COMPOSITION / INFORMATION ON INGREDIENTS

<i>Component</i>	<i>Amount</i>	<i>CAS Number</i>	<i>EU Classification</i>
Black Dye	<10	Confidential	R51 R53
Ethanol	<65	64-17-5	F; R11
1-Propanol	<25	71-23-8	F; R11
1-Butanol	<10	71-36-3	Xn; R10 R20
Acetone	<5	67-64-1	F; R11

3. HAZARDOUS INFORMATION

Product Definition: Preparation

Classification	Classification as per current EC lists & extended by company data and literature
R10	Flammable
R11	Highly Flammable
R20	Harmful by inhalation
R51	Toxic to aquatic organisms
R53	May cause long-term adverse effects in aquatic environment

3.1 Label Elements



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4. FIRST AID MEASURES

<i>INHALATION</i>	Remove subject to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
<i>EYE CONTACT</i>	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
<i>SKIN CONTACT</i>	Wash thoroughly with soap and water.
<i>INGESTION</i>	Rinse mouth well immediately and seek medical advice.

5. FIRE FIGHTING MEASURES

<i>FLASH POINT</i>	Unknown, treat as flammable liquid
<i>AUTO-IGNITION TEMP.</i>	Unknown
<i>FLAMMABLE LIMITS IN AIR % BY VOLUME</i>	Limits unknown, flammable Liquid and Vapor!
<i>FIRE EXTINGUISHING MEDIA</i>	Water, dry chemical or carbon dioxide.
<i>SPECIAL INFORMATION</i>	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire. Vapors can flow along surfaces to distant ignition source and flash back.
<i>UNUSUAL FIRE AND EXPLOSION HAZARDS:</i>	Alcohols can react vigorously with oxidizers.

6. ACCIDENTAL RELEASE MEASURES

Restrict access to area. Keep unprotected personnel upwind of spill. Remove sources of heat, sparks, and flames. Provide adequate ventilation. Contain spill. Prevent liquid from entering sewers and confined spaces. Use non-sparking tools and equipment. Follow federal, state, and local requirements for reporting spills and releases.	
<i>SMALL SPILLS</i>	Remove all sources of ignition. Increase ventilation. Evacuate all necessary personnel. Wear self-contained breathing apparatus. And full protective clothing to minimize skin and eye exposure.
<i>LARGE SPILLS</i>	Absorb with sand or other suitable material; transfer to suitable disposal container. Flush area with water.
<i>DISPOSAL</i>	Follow federal, state and local disposal requirements. Waste residues and liquids may be an ignitable hazardous waste.
<i>SAFEGUARDS (PERSONNEL):</i>	Protect skin and eyes from exposure. Wear appropriate personal protective equipment. If vapors or mists are generated wear a NIOSH approved respirator.



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7. HANDLING AND STORAGE

Store in tightly closed containers. Store in cool, dry, well-ventilated, fire resistant areas. Do not store at temperatures higher than 30 C. Store out of direct sunlight, away from oxidizing agents and sources of heat or ignition. Electrically bond and ground metal containers during liquid transfer.

8. EXPOSURE CONTROLS /PERSONAL PROTECTION

EXPOSURE CONTROLS (<i>VENTILATION</i>):	Local exhaust to minimize concentration of alcohol vapors recommended.
PERSONAL PROTECTION	
Respiratory:	None required under normal conditions of use.
Eye Protection	None required under normal conditions of use.
Gloves	Butyl rubber, natural rubber, neoprene, nitrile rubber, polyethylene or other compatible material.
Other	Appropriate protective clothing for the work situation to minimize skin contact. Eyewash stations and safety showers should be available in areas of handling and use.

9. PHYSICAL AND CHEMICAL PROPERTIES

<i>COLOUR</i>	Black	<i>VAPOUR PRESSURE</i>	No data available
<i>ODOUR</i>	Slight odour	<i>PERCENT VOLATILE</i>	No data available
<i>BOILING POINT</i>	Not available	<i>EVAPORATION RATE</i>	No data available
<i>SPECIFIC GRAVITY</i>	0.81 (H ₂ O = 1)	<i>VAPOUR DENSITY</i>	No data available
<i>SOLUBILITY in water</i>	Colorant insoluble	<i>FLASH POINT</i>	-9°C

10. STABILITY AND REACTIVITY

<i>STABILITY</i>	Stable
<i>CONDITIONS TO AVOID</i>	Keep away from heat, sparks, flames
<i>INCOMPATIBILITY</i>	Capable of reacting vigorously with oxidizing agents, such as nitrates, perchlorates, peroxides, sulfuric acid, nitric acid, etc.
<i>HAZARDOUS THERMAL DECOMPOSITION PRODUCTS</i>	Carbon Dioxide (CO ₂), Carbon Monoxide (CO) and nitrogen oxides.
<i>HAZARDOUS POLYMERISATION</i>	Will not occur

11. TOXICOLGICAL INFORMATION

<i>CARCINOGENICITY</i>	No data available
<i>MUTAGENICITY</i>	No data available



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Ethanol: 7060mg/Kg (rat)

1-Propanol: 1870mg/Kg (rat)

Acetone: 5800mg/Kg (rat)

1-Butanol: 790mg/Kg (rat)

Dermal LD50

Ethanol: 20000mg/Kg (rabbit)

1-Propanol: 4060mg/Kg (rabbit)

Acetone: 20000mg/Kg (rabbit)

1-Butanol: 3400mg/Kg (rabbit)

Inhalant LC50

Ethanol: 20000ppm/10H (rat)

1-Propanol: 13548ppm/4H (rat)

Acetone: 50100mg/m³/8H (rat)

1-Butanol: 8000ppm/4H (rat)

12. ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL
INFORMATION**

Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Treat or dispose of waste in accordance with all local, state/provincial, and national requirements

14. TRANSPORT INFORMATION

<i>PRODUCT LABEL</i>	PHARMA ^{ti} j
<i>D.O.T SHIPPING NAME</i>	Printing ink - flammable
<i>D.O.T HAZARD CLASS</i>	Class 3, Flammable Liquid
<i>UN NUMBER</i>	UN1210
<i>D.O.T LABEL</i>	Flammable
<i>BULK CLASS</i>	Not applicable
<i>PACKAGING CLASS</i>	II

15. REGULATORY INFORMATION

EU Notification: All ingredients are listed on EINECS

The ink preparation as a whole is classified Flammable and Irritant according to EU Derivatives.

RISK PHRASES	
R10	Flammable
R11	Highly Flammable
R20	Harmful by inhalation
R51	Toxic to aquatic organisms
R53	May cause long-term adverse effects in aquatic environment.
SAFETY PHRASES	
S2	Keep out of the reach of children
S7	Keep container tightly closed
S16	Keep away from sources of ignition - No smoking
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice



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S28	After contact with skin, wash immediately with plenty of soap and water
S36/37/39	Wear suitable protective clothing, gloves, and eye/face protection
S45	In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)
S60	This material and its container must be disposed of as hazardous waste
S61	Avoid release to the environment.

MISCELLANEOUS INFORMATION: This material or all of its components are listed on the Inventory of Existing Chemicals Substances under the Toxic Substance Control Act (TSCA).

16. OTHER INFORMATION

ADDITIONAL INFORMATION: The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process.

The information contained herein is, to the best of our knowledge and belief, accurate. Since the condition of handling and use Care beyond our control, we assume no liability for loss or injury resulting from the use of this product or the information herein. All chemicals may present unknown health hazards and should be used with caution. Safe use of this product is the responsibility of the user.

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