



# MATERIAL SAFETY DATA SHEET

Product Name: Ink Solvent V-20947

This product is classified as Non Hazardous according to the criteria of Worksafe Australia

## 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

*Product Name* Ink Solvent V-20947

*Product Code* V-20947

*General Use* Water based ink solvent for use with black water based drop on demand ink.

*Distributor* Packserv Pty Ltd  
Unit 9, 168-180 Victoria Rd Marrickville NSW 2204  
Telephone: 02 9550 4441  
Facsimile: 02 9550 4442

*Business Hours:* 8.30 am – 5.00pm  
Monday to Friday

*Manufacturer/Supplier* Independent Ink Inc.  
13700 South Gramercy Place  
Gardena, California 90249, USA.  
Telephone: (00111) 310 523 9919  
Facsimile: (00111) 310 523 9961

*Poison Information (24 hours)* 13 11 26

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

<i>Component</i>	<i>CAS Number</i>	<i>EC &amp; Risk Phrases</i>		<i>Composition % w/w</i>	<i>Exposure Limits</i>			
		<i>EC</i>	<i>R</i>		<i>TWA</i>		<i>STEL</i>	
					<i>ppm</i>	<i>mg/m<sup>3</sup></i>	<i>ppm</i>	<i>mg/m<sup>3</sup></i>
2-(2-butoxyethoxy) ethanol	112-34-5	Xi	R36	5 –15	---	---	---	---
Water	7732-18-5	---	---	75 –95	---	---	---	---

## 3. HAZARDOUS INFORMATION

UN No: None Allocated

Hazchem Code: None Allocated

DG Class & Subsidiary Risk: None Allocated

Packaging Group: None Allocated

Poison Schedule No: S6

Risk Phrases: None Allocated

Safety Phrases: None Allocated

Emergency Overview: Colorless, near odorless liquid. May cause irritation to eyes. Avid contact to eyes and skin and avoid breathing mist.



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**INHALATION**

**2-(2-butoxyethoxy) ethanol**

Inhalation not likely under normal conditions of use. After inhalation: irritation of mucous membranes, coughing and dyspnoea. Inhalation of vapors is harmful i.e. after ingestion: can cause headache, weakness, dizziness, and shortness of breath, cyanosis, rapid heartbeat, unconsciousness, CNS disorders and possible death.

**EYE CONTACT**

**2-(2-butoxyethoxy) ethanol**

Irritating to the eyes.

**SKIN CONTACT**

**2-(2-butoxyethoxy) ethanol**

Irritating to the skin. Absorbed through the skin.

**INGESTION**

**2-(2-butoxyethoxy) ethanol**

Harmful if swallowed. May cause headache, weakness, dizziness, and shortness of breath, cyanosis, rapid heartbeat, unconsciousness, CNS disorders and possible death. Very low acute toxicity in animal experiments.

**CHRONIC**

**2-(2-butoxyethoxy) ethanol**

Absorbed through the skin. Large quantities ingested or inhaled or repeated or prolonged exposure to the substance may cause kidney abnormalities.

## 4. EMERGENCY AND FIRST AID MEASURES

*Poison Information Centers in each State capital city can provide additional assistance for scheduled poisons*

**INHALATION**

Remove from the source of contamination and move the victim to fresh air. If victim has stopped breathing, begin artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention!

**EYE CONTACT**

Check for and remove any contact lenses. In case of contact, wash with copious amounts of water for at least 15 minutes holding eyelid(s) open. Cold water may be used. Take care not to rinse contaminated water into the unaffected eye. If irritation develops and persists, seek medical attention.

**SKIN CONTACT**

In case of contact, immediately flush skin copiously with water for at least 15 minutes while removing contaminated clothing and shoes. Cold water may be used. Wash clothing and clean shoes before reuse. Seek immediate medical attention!

**INGESTION**

Never give anything by mouth if victim is semi-conscious or unconscious. Do NOT induce vomiting unless directed to do so by qualified medical personnel. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing, such as collar, tie, belt or waistband.

**FIRST AID FACILITIES**

Eye wash and normal washroom facilities.

**ADVICE TO PHYSICIAN**

Treat symptomatically.

## 5. EXPLOSION HAZARD DATA AND FIRE FIGHTING MEASURES

**EXPLOSIVE LIMITS**

% Lower 1 % Upper 25

**FLASH POINT**

100 °C (closed cup)

**AUTO-IGNITION TEMP.**

204 °C, weighted average result



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## EXTINGUISHING MEDIA

SMALL FIRE: use DRY chemical powder  
LARGE FIRE: use water spray or fog or foam. Do not use water jet. Water spray may be used to cool down heat-exposed containers to prevent pressure build-up, auto ignition or explosion.

## SPECIAL FIRE FIGHTING PROCEDURES

Fire fighters must wear self-contained breathing apparatus and full protective clothing if at risk of exposure to vapor or products of combustion are likely.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may rupture (due to build up of pressure) when exposed to extreme heat

## HAZCHEM CODE

None Allocated

## HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition may produce oxides of carbon (CO, CO<sub>2</sub>) and Nitrogen (NO, NO<sub>2</sub> ...)

## FIRE-FIGHTERS PROTECTION

Be sure to use an approved/certified respirator or equivalent.

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PROTECTION

Remove all sources of ignition. Increase ventilation. Evacuate all necessary personnel. Wear face shield, self-contained breathing apparatus and full protective clothing to minimize skin and eye exposure. Ensure all equipment sufficiently protective for this type of material. Consult a specialist *before* handling this material if required.

### GENERAL

Combustible material.

Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. *Neutralize the residue with a dilute solution of Acetic Acid (Vinegar)*. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

If large quantities of this material enter the water ways, contact the Environmental Protection Authority (EPA), or your local Waste Management Authority.

If necessary, consult an expert on the disposal of recovered material. Ensure disposal is in compliance with government requirements and ensure conformity of local disposal regulation. Please notify appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

## 7. HANDLING AND STORAGE

### HANDLING

Keep material locked away securely. Keep material away from heat and sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing.

If ingested seek immediate medical advice and show the container or label. Keep away from incompatibles such as strong oxidising agents.

Ensure a high level of personal hygiene is maintained when using this product i.e., *always* wash hands before eating, drinking, smoking or using the toilet.



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**STORAGE**

Store in a cool, dry place away from direct sunlight, sources of heat or sources of ignition (spark or flame). Avoid contact with incompatible materials such as strong oxidizing agents. Keep containers tightly closed and sealed until ready for use.

**PACKAGING MATERIALS**

Use original container.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**EXPOSURE LIMITS**

**2-(2-butoxyethoxy) ethanol**

Germany	BAUA MAK-	TWA	8 hour	100 mg/kg
Netherlands	Arbeidsinspectie, skin	TWA	8 hour	9 ppm
Denmark	DK-Arbejdstilsynet	TWA	8 hour	100 mg/Kg
Austria	AUVA MAK,	TWA	8 hour	100 mg/Kg
Sweden	AFS NGV	TWA	8 hour	15 ppm
Sweden	AFS NGV	STEL	15 min.	30 ppm
Switzerland	SUVA	TWA	8 hour	100 mg/Kg
Switzerland	SUVA	STEL	15 min.	200 mg/Kg

**ENGINEERING CONTROLS  
(VENTILATION):**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit values.

**PERSONAL PROTECTION**

Respiratory:	If vapors or mists are generated the use of an 'Air Purifying Respirator' with an 'Organic Vapor Filter', meeting requirements of AS/NZS 1715 and AS/NZS 1716, is highly recommended.
Protective Gloves	The use of Butyl Gloves or other impervious gloves are recommended.
Eye Protection	Wear chemical splash goggles or shielded safety glasses. An eyewash station should be readily available
Protective Clothing	The use of plastic aprons and/or laboratory coats, sleeves, overalls and rubber boots are recommended. Ensure that safety showers are close to the workstation location.
General	For operations where contact can occur, wear clothing to limit skin contact. Always wash hands before smoking, eating drinking or using the toilet. Wash contaminated (non-disposable) clothing and other protective equipment before storing or re-using.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<i>APPEARANCE</i>	Black liquid	<i>VAPOUR PRESSURE</i>	18 mm Hg (20 °C), max.
<i>ODOUR</i>	Slight characteristic odor, almost odorless.	<i>VAPOUR DENSITY</i>	5.6 (Air=1) , max.
<i>BOILING POINT</i>	110 °C, weighted average	<i>EVAPORATION RATE</i>	0.4 max. (n-Butyl Acetate=1)
<i>MELTING POINT</i>	-5 °C, weighted average	<i>PERCENT VOLATILE</i>	Not available
<i>SPECIFIC GRAVITY</i>	1.02 g/L (water=1.0)	<i>VOC:</i>	Not available
<i>pH</i>	Basic	<i>VISCOSITY:</i>	Not available
<i>SOLUBILITY in water</i>	Very soluble	<i>OCTANOL/WATER partition coefficient</i>	The product is more soluble in water.

## 10. STABILITY AND REACTIVITY

<i>STABILITY</i>	Stable under normal conditions of use.
<i>HAZARDOUS POLYMERISATION</i>	Not available.
<i>CONDITIONS TO AVOID</i>	Excessive heat. Strong oxidizing agents, reducing agents, alkalis.
<i>HAZARDOUS THERMAL DECOMPOSITION PRODUCTS</i>	Thermal decomposition may produce oxides of carbon (CO, CO <sub>2</sub> ) and Nitrogen (NO, NO <sub>2</sub> .....).

## 11. TOXICOLGICAL INFORMATION

<i>ACUTE TOXICITY</i>	<b><u>2-(2-butoxyethoxy) ethanol</u></b> LD50 Oral (rat) 5660 mg/Kg LD50 Oral (mouse) 2400 mg/Kg LD50 Oral (rabbit) 2200 mg/Kg LD50 Dermal (rabbit) 2700 mg/Kg
<i>INHALATION EFFECTS</i>	Inhalation of vapors may cause irritation to mucous membranes and upper respiratory tract. After inhalation: irritant effect, coughing, shortness of breath, bronchitis, and pulmonary oedema.
<i>EYE EFFECTS</i>	Eye contact will cause irritation. Inflammation of the eye is characterized by redness, watering and itching.
<i>SKIN EFFECTS</i>	Repeated or prolonged exposure to this material may result in skin irritation leading to possible contact dermatitis with drying and cracking of the skin. Materials in this product can be absorbed through the skin.
<i>ORAL EFFECTS</i>	Ingestion may cause nausea, vomiting and diarrhea. Irritating to the mouth, throat and stomach.  Harmful if swallowed in large quantities. May cause headache, weakness, dizziness, and shortness of breath, cyanosis, rapid heartbeat, unconsciousness, CNS disorders. Materials contained in this product generally have very low acute toxicity in animal experiments.
<i>SUBCHRONIC EFFECTS</i>	Products represented by this MSDS have not been tested for subchronic toxicological effects.



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**Product Name: Ink Solvent V-20947**

*CHRONIC EFFECTS/  
CARCINOGENICITY*

Products represented by this MSDS have not been tested for carcinogenic toxicological effects.

*COMPONENTS LISTED  
AS CARCINOGENS*

OSHA: None listed  
IARC: None listed  
NTP: None listed

*MUTAGENICITY*

Products represented by this MSDS have not been tested for mutagenic toxicological effects

*REPRODUCTIVE EFFECTS*

Products represented by this MSDS have not been tested for reproductive toxicological effects.

## **12. ECOLOGICAL INFORMATION**

*ECOTOXICOLOGICAL  
INFORMATION*

Not available. Products represented by this MSDS have not been tested for eco-toxicological effects.

*CHEMICAL FATE INFORMATION* None available.

## **13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with federal, state and local environmental laws and regulations. Do not reuse wasted containers.

## **14. TRANSPORT INFORMATION**

*GROUND TRANSPORT*

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Refer to relevant regulations for storage and transport requirements.

*ADR/RID Class*

None Allocated

*ADR/RID Item Number*

None Allocated

*AIR TRANSPORT*

Not classified as Dangerous Goods

*OCEAN TRANSPORT*

Not classified as Dangerous Goods

## **15. REGULATORY INFORMATION**

**AUSTRALIA**

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Refer to relevant regulations for storage and transport requirements.

Classified as a C2 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS1940. Refer to state regulations for storage and transport requirements



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## 16. OTHER INFORMATION

UN No:	None Allocated
Hazchem Code:	None Allocated
DG Class & Subsidiary Risk:	None Allocated
Packaging Group:	None Allocated
Poison Schedule No:	S6
Risk Phrases:	None Allocated
Safety Phrases:	None Allocated

This Material Safety Data Sheet (MSDS) summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to handle and use the product in the workplace. Since Digital Ink Technologies Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.