



INNOVATIVE INK TECHNOLOGY

Safety Data Sheet

Black Water-Based

Part No. : 1BKP-A-2-DR

Issuing Date March 6, 2023

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

Product Name Black Water-Based
Part Number 1BKP-A-2-DR
Intended Use InkJet Printer ink
Manufacturer Innovative Ink Technology
 Austin, TX 78752
Telephone 512-836-5308
Emergency Number Chemtrec 1-800-424-9300 (24 hr)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification	Category
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 1B
Flammable Liquids	Category 4

Label elements

Emergency Overview

DANGER

Hazard Statements:

Causes serious eye damage

May damage fertility or the unborn child

Combustible liquid



Appearance: Black **Physical State:** Liquid **Odor:** Slight amine

Precautionary Statements – Prevention

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.

- Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Precautionary Statements – Response

- IF exposed or concerned: Get medical advice/attention.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- In case of fire: Use CO₂, dry chemical, or foam for extinction.

Precautionary Statements – Storage

- Store locked up.
- Store in a well-ventilated place. Keep cool.

Precautionary Statements – Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

Other Information

- May be harmful if swallowed.
- Harmful to aquatic life with long-lasting effects.
- Harmful to aquatic life.

Unknown acute toxicity 34.36876% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %	Trade Secret
Lactam	Proprietary	15 – 45	*
Modified Carbon Black	NOT AVAILABLE	1 – 10	*
Ethyl alcohol	64-17-5	1 – 5	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

NOTE Remaining components are either not hazardous or below threshold limits.

4. FIRST AID MEASURES

Description of first-aid measures

General advice	If symptoms persist, call a physician. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is not required. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. Call a physician. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.
Ingestion	Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms Hives.

Indication of immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use Carbon dioxide (CO₂) Dry chemical Alcohol resistant foam.

Unsuitable extinguishing media None.

Specific hazards arising from the chemical

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protection recommended in Section 8. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Avoid contact with eyes, skin and clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Incompatible products Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl alcohol (64-17-5)	1000 ppm STEL	TWA: 1000 ppm TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering measures Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment (PPE)

Eye/Face protection Tight-sealing safety goggles. Face protection shield.

Skin and body protection For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Respiratory protection None under normal use conditions.

Hygiene Measures Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state Liquid

Appearance Black

Odor Slight amine

Color No information available

Odor threshold No information available

Property	Values	Remarks / Method
pH	8 – 10	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	Approximately 93°C	Seta Closed Cup
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	0.9 – 1.1	Not applicable
Water solubility	No information available	
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	> 200°C	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	

Oxidizing properties No information available

Other information

Softening point No information available

Molecular weight No information available

VOC content No information available

Liquid Density No information available

Bulk density No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information The product has not been tested

Inhalation May cause irritation of respiratory tract. Avoid breathing vapors or mists.

Eye contact Avoid contact with eyes. Irritating to eyes. Causes serious eye damage.

IF ON SKIN Avoid contact with skin. May cause irritation.

Ingestion Do NOT taste or swallow. May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
Lactam	= 1350 mg/kg (Rat)	–	–
Ethyl alcohol (64-17-5)	= 7060 mg/kg (Rat)	–	= 124.7 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Serious eye damage/ eye irritation Risk of serious damage to eyes. Irritating to eyes.

Irritation May cause irritation of respiratory tract. May cause skin and eye irritation.

Sensitization No information available.

Mutagenic effects No information available.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. This product contains Ethanol which is classified as a possible carcinogen when ingested in the form of an alcoholic beverage. This is irrelevant as this product is used for ink jet ink applications not an alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethyl alcohol (64-17-5)	A3	Group 1	Known	X

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reproductive toxicity

May impair fertility. Possible risk of impaired fertility. May cause harm to the unborn child. Possible risk of harm to the unborn child.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Chronic toxicity

Contains a known or suspected reproductive toxin. Avoid repeated exposure.

Target organ effects

blood, Central Nervous System (CNS), Eyes, liver, Reproductive System, blood, Skin.

Aspiration hazard

No information available.

Numerical measures of toxicity – Product Information

Unknown acute toxicity 34.36876% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 4420 mg/kg

ATEmix (inhalation-dust/mist) 2862.6 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Harmful to aquatic life with long-lasting effects.

0.31876% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Lactam	–	464 – 999: 96 h Danio rerio mg/L LC50 static	–
Ethyl alcohol (64-17-5)	–	13400 – 15100: 96 h Pimephales promelas mg/L LC50 flow-through 12.0 – 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static	2: 48 h Daphnia magna mg/L EC50 Static 9268 – 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical Name	Partition coefficient
Ethyl alcohol (64-17-5)	-0.32

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste treatment methods Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Ethyl alcohol (64-17-5)	Toxic; Ignitable

14. TRANSPORT INFORMATION

Regulation	Status
DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION**International Inventories**

Chemical Name	TSCA	DSL/NDSL	EINECS/E LINC	ENCS	IECSC	KECL	PICCS	AICS
Lactam	X	X	X	X	X	–	X	–
Ethyl alcohol (64-17-5)	X	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINC - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Ethyl alcohol - 64-17-5	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethyl alcohol (64-17-5)	X	X	X

U.S. EPA Label Information

EPA Pesticide registration number Not applicable

16. OTHER INFORMATION

NFPA Health hazard: 2 Flammability: 2 Instability: 0 Physical and chemical properties: –

HMIS Health hazard: 2 Flammability: 2 Physical Hazards: 0 Personal precautions: X

End