



INNOVATIVE INK TECHNOLOGY

Safety Data Sheet

Black Solvent-Based

Part No. : 1BK-SV-2-DR

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

Product Name Black Solvent-Based
Part Number 1BK-SV-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
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Flammable Liquids	Category 2

Label elements

Emergency Overview

DANGER

Hazard Statements:

Highly flammable liquid and vapor

Causes skin irritation

Causes serious eye damage



Appearance: Black **Physical State:** Liquid **Odor:** Mild solvent

Precautionary Statements – Prevention

- Wash face, hands and any exposed skin thoroughly after handling.
- Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- Keep container tightly closed.

- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wear protective gloves/eye protection/face protection.

Precautionary Statements – Response

- 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.
- If skin irritation occurs: Get medical advice/attention.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Wash contaminated clothing before reuse.
- In case of fire: Use CO₂, dry chemical, or foam to extinguish.

Precautionary Statements – Storage

- 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 in contact with skin
- Toxic to aquatic life with long-lasting effects
- Toxic to aquatic life

Unknown acute toxicity 13.8896% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %	Trade Secret
Ethyl alcohol	64-17-5	60 – 85	*
Propanol	71-23-8	1 – 15	*
Isopropyl alcohol	67-63-0	1 – < 5	*
1-aminopropan-2-ol	78-96-6	0.1 – < 2	*

*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	Immediate medical attention is required. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. 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.
Skin contact	Wash off immediately with plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Move to fresh air in case of accidental inhalation of vapors.
Ingestion	Immediate medical attention is not required. Rinse mouth. Drink plenty of water. 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 Remove all sources of ignition. 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 Water spray, fog or alcohol-resistant foam.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Ensure adequate ventilation. Keep away from open flames, hot surfaces, and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame-proof equipment. To avoid ignition of vapors by static electricity discharge; all metal parts of the equipment must be grounded. Avoid contact with eyes, skin, and clothing. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.

Incompatible products Strong acids. Strong oxidizing agents. Acids. Chlorinated compounds.

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
Propanol (71-23-8)	TWA: 100 ppm	TWA: 200 ppm TWA: 500 mg/m ³	IDLH: 800 ppm TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 625 mg/m ³
Isopropyl alcohol (67-63-0)	400 ppm STEL TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
Solvent Yellow 21 (5601-29-6)	–	TWA: 0.5 mg/m ³	IDLH: 25 mg/m ³ TWA: 0.5 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Hexavalent Chrome may be formed during welding.

Appropriate engineering controls

Engineering measures Ensure adequate ventilation, especially in confined areas.

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

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

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

Skin and body protection Chemical-resistant apron.

Hygiene Measures 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	Odor	Mild solvent
Appearance	Black	Odor threshold	No information available
Color	No information available		

Property	Values	Remarks / Method
pH	8–10	
Melting point / freezing point	No information available	
Boiling point / boiling range	> 75°C	
Flash point	< 17°C	Seta Closed Cup
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	

Flammability Limit in Air

Upper flammability limit:	11.5 (volume % in Air)	
Lower flammability limit:	1.8 (volume % in Air)	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	0.700–0.900	Not applicable
Water solubility	No information available	
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
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 recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Heating in air. Heat, flames, and sparks.

Incompatible materials

Strong acids. Strong oxidizing agents. Acids. Chlorinated compounds.

Hazardous decomposition products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Product Information	The product has not been tested
Inhalation	Avoid breathing vapors or mists. May cause irritation of respiratory tract.
Eye contact	Causes serious eye damage. Avoid contact with eyes.
IF ON SKIN	Avoid contact with skin. Irritating to skin.

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

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
Ethyl alcohol (64-17-5)	= 7060 mg/kg (Rat)	–	= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h
Propanol (71-23-8)	= 1870 mg/kg (Rat)	= 4049 mg/kg (Rabbit)	> 33.8 mg/L (Rat) 4 h
Isopropyl alcohol (67-63-0)	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	> 10000 ppm (Rat) 6 h
1-aminopropan-2-ol (78-96-6)	= 1715 mg/kg (Rat)	–	–

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 Causes serious eye damage. May cause irritation to the skin and respiratory system.

Sensitization May cause an allergic skin reaction.

Mutagenic effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. The list below indicates any ingredient listed as a carcinogen:

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethyl alcohol (64-17-5)	A3	Group 1	Known	X
Isopropyl alcohol (67-63-0)	–	Group 3	–	X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

NTP: (National Toxicity Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

Known - Known Carcinogen

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Chronic toxicity Possible risks of irreversible effects. Prolonged exposure may cause chronic effects. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. Avoid repeated exposure.

Target organ effects liver, blood, Eyes, Skin, Central Nervous System (CNS), blood, Reproductive System, Gastrointestinal tract (GI), kidney, hematopoietic system.

Aspiration hazard No information available.

Numerical measures of toxicity – Product Information

Unknown acute toxicity 13.8896% 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) 5098 mg/kg

ATEmix (dermal) 3420 mg/kg

ATEmix (inhalation-dust/mist) 87.7 mg/l

ATEmix (inhalation-vapor) 36.3 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long-lasting effects.

6.576% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Ethyl alcohol (64-17-5)	–	12.0–16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400–15100: 96 h Pimephales promelas mg/L LC50 flow-through	9268–14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static
Propanol (71-23-8)	–	4480: 96 h Pimephales promelas mg/L LC50 flow-through	3642: 48 h Daphnia magna mg/L EC50 3339–3977: 48 h Daphnia magna mg/L EC50 Static
Isopropyl alcohol (67-63-0)	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static 1400000: 96 h Lepomis macrochirus µg/L LC50	13299: 48 h Daphnia magna mg/L EC50
1-aminopropan-2-ol (78-96-6)	23: 72 h Desmodesmus subspicatus mg/L EC50	2390–2650: 96 h Pimephales promelas mg/L LC50 flow-through	108.82: 48 h Daphnia magna Straus mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical Name	Partition coefficient
Ethyl alcohol (64-17-5)	-0.35
Propanol (71-23-8)	0.2
Isopropyl alcohol (67-63-0)	0.05
1-aminopropan-2-ol (78-96-6)	-0.94

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. Should not be released into the environment. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

US EPA Waste No. D007

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

Propanol (71-23-8)	Toxic; Ignitable
Isopropyl alcohol (67-63-0)	Toxic; Ignitable

14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Hazard Class	Packing Group
DOT	UN1210	Printing Ink, Flammable	3	II
IATA	UN1210	Printing Ink, Flammable	3	II
IMDG/IMO	UN1210	Printing Ink, Flammable	3	II
ADR	UN1210	Printing Ink, Flammable	3	II
TDG	Not Evaluated			
MEX	Not Evaluated			
ICAO	Not Evaluated			
RID	Not Evaluated			
ADN	Not Evaluated			

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
Ethyl alcohol (64-17-5)	✓	✓	✓	✓	✓	✓	✓	✓
Propanol (71-23-8)	✓	✓	✓	✓	✓	✓	✓	✓
Isopropyl alcohol (67-63-0)	✓	✓	✓	✓	✓	✓	✓	✓
1-aminopropan-2-ol (78-96-6)	✓	✓	✓	✓	✓	✓	✓	✓

Legend:

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

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

EINECS/ELINCS - 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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. This information must be included in all SDSs that are copied and distributed for this material.

Chemical Name	SARA 313 – Threshold Values %
Isopropyl alcohol (67-63-0)	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
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
Propanol (71-23-8)	X	X	X
Isopropyl alcohol (67-63-0)	X	X	X
1-aminopropan-2-ol (78-96-6)	X	X	X

U.S. EPA Label Information

EPA Pesticide registration number Not applicable

16. OTHER INFORMATION

NFPA Health hazard: 2 Flammability: 3 Instability: 0 Physical and chemical properties: –

HMIS Health hazard: 2 Flammability: 3 Physical Hazards: 0 Personal precautions: X

End