

Safety Data Sheet

Section 1 : Identification of substance and company undertaking

- 1.1 Product identifier : PRETREATMENT LIQUID VIVID BRIGHT v3.0
- 1.2 Relevant substance use : for white colored garment
- 1.3 Supplier detail
- Address : 230, Harmony-ro, Yeonsu-gu, Incheon, South Korea 22011
- Telephone : +82-32-433-7758
- Fax : +82-32-431-7758

Section 2 : Hazard identification

- 2.1 GHS classification : Not hazardous
- 2.2 Label elements
- Symbols : None
- Signal word : None
- Hazard statements : None
- Precautionary statements : P102 Keep out of children
- P103+P352 IF ON SKIN : Wash with soap and water
- P332+P313 If skin irritation occurs : Get medical advice/attention.
- P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulation, and product characteristics at time of disposal.

Section 3 : Composition/information on ingredients

Substance/Mixture(liquid composition)

Ink Composition	CAS No.	% By Weight	Remark
Water	7732-18-5	70-75	none
Glycerols	56-81-5	5-10	none
TEGBE	143-22-6	1-5	none
Propylene glycol	57-55-6	15-20	none

Section 4 : First aid measures

4.1 Description of measures

- Eyes : Immediately flush with room temperature, low pressure, clean water.
Seek medical attention if irritation continues.
- Skin : IF ON SKIN : Wash with soap and water. Take off contaminated
If skin irritation occurs, get medical advice/attention.
- Inhalation : Remove subject to ventilated fresh air. If not breathing, give artificial
respiration right away. If breathing is difficult, give oxygen.
Seek immediate medical attention.
- Ingestion : Seek medical advice, and attention if stomach continues to be upset.

4.2 Most important

symptoms and effects, Liquid contact with skin may cause irritation. swelling, or redness.
both acute and delayed :

4.3 Indication of any immediate medical attention and special treatment needed : Not necessary

Section 5 : Fire-fighting measures

5.1 Extinguishing media

- Suitable media : Water spray, dry chemical, carbon dioxide, or alcohol resistant foam.
- Unsuitable media : None

5.2 Special hazards from mixture : None

5.3 Firefighters : Use PPE, avoid a leeward position.

Section 6 : Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

- Non-emergency personnel : Eye and skin protection required during clean-up. Use proper ventilation.
- Emergency responders : None

6.2 Environmental precautions : Do not release to sewer, surface, or ground water.

6.3 Methods and material for containment and clean-up

- Spill containment : Use sponges to wipe-up ink.
- Spill clean-up : Rinse area with damp cloth. Place waste in closed container for disposal.
Wash hands with soap and water.
- Other information : Do not dispose of waste to sewer.

6.4 Reference to other sections : Please refer to Section 13 for disposal.

Section 7 : Handling and storage

7.1 Precautions for safe handling

Recommendation : Keep out of reach of children and do not drink liquid.
Do not dismantle cartridge.

Occupation hygiene : Avoid contact with skin, eyes, and clothing.
In the case of skin contact, wash with soap and water.

7.2 Safe storage : Do not store cartridges in high or freezing temperatures.
Keep cartridges out of direct sunlight.
Do not store cartridges with oxidizing agents or explosives.
Make sure cartridges are dry before insertion into printer housing.

7.3 Specific end uses : Not specified

Section 8 : Exposure controls / personnel protection

8.1 Control parameters : Glycerols (CAS No. 56-81-5)
ACGIH TLV-TWA 8-hour Exposure Limit is 10 mg/m³ as glycerin mist.
OSHA Z-1 PEL is 5 mg/m³ as glycerin mist, respirable fraction.
OSHA Z-1 PEL is 15 mg/m³ as glycerin mist, total dust.

8.2 Exposure controls

Engineering controls : Proper ventilation

Personal protection : Personal protective equipment is not required under suitable use.
If there is a possibility of liquid exposure, wear protective gloves, clothing, eye, and face protection.
Respiratory protection is not required under suitable use.
Thermal hazards are not known under suitable use.

Environmental exposure controls : Not established

Section 9 : Exposure controls / personnel protection

9.1 Physical and chemical properties

Appearance : Clear liquid
Odor : Slight
Odor threshold : No data available
pH : 5.0 - 6.0
Melting point : Less than 0°C
Freezing point : More than 0°C
Initial boiling point : No data available
Boiling range : No data available
Flash point : Greater than 100.0°C (closed cup, ASTM D3278)
Evaporation rate : No data available
Flammability(solid/gas) : Not applicable (liquid)
Upper/lower flammability : No data available

Upper/lower explosive limits :	No data available
Vapor pressure :	No data available
Vapor density :	No data available
Relative density :	1.01 at 20 °C
Solubility(ies) :	Soluble in water
Partition coefficient :	N-octanol/water, no data available
Auto ignition temp :	No data available
Decomposition temp :	No data available
Viscosity :	Less than 5 mPa-s at 20°C
Explosive properties :	None
Oxidizing properties :	None

Section 10 : Stability and reactivity

10.1 Reactivity :	Stable under normal temperature and pressure
10.2 Chemical stability :	Stable under normal temperature and pressure
10.3 Hazard reactions :	None
10.4 Conditions to avoid :	High and freezing temperature
10.5 Incompatible materials :	Oxidizers and explosives
10.6 Hazard decomposition :	Acrolein (CAS No. 107-02-8) ; when glycerols are heated over 300°C, they will decompose into acrolein.

Section 11 : Toxicological information

11.1 Toxicological effects	
Acute toxicity Oral LD ₅₀ :	>2500 mg/kg (rats)
Acute toxicity Dermal LD ₅₀ :	>2000 mg/kg (rats)
Irritation Eye :	No data available
Irritation Skin :	No data available
Corrosivity :	No data available
Sensitization :	No data available
Carcinogenicity :	No data available
Reproduction toxicity :	No data available



Section 12 : Ecological information

- 12.1 Toxicity : No data available
- 12.2 Persistence and degradability : No data available
- 12.3 Bio accumulative potential : No data available
- 12.4 Mobility in soil : No data available
- 12.5 PBT and vPvB assessment : No data available
- 12.6 Other adverse effects : No data available

Section 13 : Disposal considerations

- 13.1 Waste treatment methods : Disposal should be in accordance with federal, state, and local requirements.

Section 14 : Transportation information

- 14.1 UN number :
- 14.2 Proper shipping name : Not applicable
- 14.3 Transport hazard class : Not applicable
- 14.4 Packing group : Not applicable
- 14.5 Environmental hazard : Not applicable
- 14.6 Special precautions : Not applicable
- 14.7 Bulk transport Annex II of MARPOL 73/78 and IBC Code : Not applicable
- 14.8 This product is NOT classified as dangerous for IATA Transport

Section 15 : Regulation information (safety, health, and environmental)

- 15.1 U.S. Information
 - OSHA Inhalation Hazard : Not Regulated (29 CFR 1910.1000(d)(1)(i))
 - TSCA Sec. 4(a) Final Test Rules : Not Regulated
 - TSCA Sec. 5 SNUR : Not Regulated
 - TSCA Sec. 8(a) PAIR : Not Regulated
 - TSCA Sec. 12(b) 1-time Export : Not Regulated
 - Clean Air Act Sec. 112 HAP : Not Regulated
 - EPCRA Sec. 313 (SARA Title III) : Not Regulated
 - NFPA Hazard Rating : Health(1), Flammability(1), Instability/Reactivity(0), Other(0)
 - HMIS Hazard Rating : Health(1), Flammability(1), Instability/Reactivity(0), PPE(D)
 - California Proposition 65 : Not Regulated
- 15.2 Canada Information :
 - WHMIS Controlled Product : Not applicable (manufactured article)
- 15.3 Chemical safety



assessment : Chemical safety assessment on liquid has not been conducted

Section 16 : Other information

This SDS adheres to U.S. regulatory requirements and standards and may not meet the regulatory requirements in other locations.

This is a revised Safety Data Sheet which replaces all prior U.S. SDS for this substance.

This "Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or uses and disposal information which may accompany the substance.

The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. PRINTSYSTEM does not warrant the completeness or accuracy of the information contained herein. It is subject to revision from time to time.