

## Safety Data Sheet

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

SUBLIMATION INK, SBL2-BK

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Inkjet Printing

#### 1.3. Details of the supplier of the safety data sheet

Manufacture's name: Roland DG Corporation  
Address: 1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Phone: + 81-53-484-1224  
Fax: + 81-53-484-1226

E-mail Address:

Revision: 20 March, 2014

#### 1.4. Emergency telephone:

### 2. Hazard identification

#### 2.1. Classification of the substance or mixture

This product is not classified as hazardous according to Directive 1999/45/EC.

**This product is not classified as hazardous according to GHS criteria.**

#### 2.2. GHS label elements, including precautionary statements

**The product does not need to be labelled in accordance with GHS criteria.**

Contains C.I. Disperse Blue 360. May produce an allergic reaction.

#### 2.3. Other hazards

##### Potential Health Effects:

Eyes: Contact with eye may be mildly irritating.  
Skin: Contact with skin may cause irritation, swelling or redness.  
Inhalation: Exposure to vapors (mist) will cause respiratory irritation and anesthesia.  
Ingestion: May cause upset stomach.  
Chronic Health Hazards: None Known.  
Carcinogenicity: None of the ingredients in this ink is listed by IARC as a carcinogen.

### 3. Composition/information on ingredients

**Chemical nature:** mixture

Composition	CAS No.	EC No.	EU registration No.	% By Weight	Classification EC No. 1272/2008	Classification 67/548/EEC
Water	7732-18-5	231-791-2	Exemption	50-70	Not classified as hazardous	Not classified as hazardous
Glycerol	56-81-5	200-289-5	N/A for the moment	20-30	Not classified as hazardous	Not classified as hazardous
Disperse dye	C.B.I.	C.B.I.	N/A for the moment	6-12	Not classified as hazardous	Not classified as hazardous

\*C.B.I.: Confidential Business Information

### 4. First aid measures

#### 4.1. Description of first aid measures

- Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids open during flushing. Call a physician.
- Skin:** In case of contact, immediately flush with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. **If swelling or redness occurs**, call a physician.
- Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- Ingestion:** If swallowed, DO NOT induce vomiting. Seek immediate medical advice.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Eyes:** Contact with eye may be mildly irritating.
- Skin:** Contact with skin may cause irritation, swelling or redness.
- Inhalation:** Exposure to vapors (mist) will cause respiratory irritation and anesthesia.
- Ingestion:** May cause upset stomach.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No information

### 5. Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media:

Do NOT use water jet.

#### 5.2. Special hazards arising from the substance or mixture

Not Flammable, Flash Point: >100 °C

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health. Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective equipment.

Applying direct water may be dangerous because fire may expand to surroundings.

## 6. Accidental release measures

### General:

Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill. Absorb spill with sand or earth then place in a chemical waste container.

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus and wear appropriate personal protective equipment.

### 6.2. Environmental precautions

Dike spill. Prevent liquid from entering sewers, waterways or low areas.

### 6.3. Methods and material for containment and cleaning up

Soak up with sand or earth. Sweep up material and dispose as waste following local regulations. Scrub contaminated area with detergent and water.

### 6.4. Reference to other sections

Refer to "Section 8 Exposure controls/ personal protection" and "Section 13 Disposal consideration" as appropriate.

## 7. Handling and storage

### 7.1. Precautions for safe handling

**Avoid contact with eyes, skin and clothing. Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink. Do not dismantle container.**

### 7.2. Conditions for safe storage, including any incompatibilities

**Do not store the product in high or freezing temperatures. Keep the product out of direct sunlight. Do not store the product with oxidizing agents or explosives.**

### 7.3. Specific end use(s):

Inkjet printing

## 8. Exposure controls/ personal protection

### 8.1. Control parameters

Occupational Exposure Limits:

EU: **DNEL**

components	Long term exposure	Short term exposure
Glycerol	56mg/m <sup>3</sup>	-

**REACH Toxicological Information (Workers - Hazard via inhalation route)**

US:

components	OSHA:PEL	ACGIH:TLV
Glycerol (mist)	15mg/m <sup>3</sup>	10mg/m <sup>3</sup>

Australia: OELs

components	TWA	STEL
Glycerol (mist)	10mg/m <sup>3</sup>	-

### 8.2. Exposure controls

Occupational exposure control:

Control the airborne concentrations below the exposure limits. Use only with adequate ventilation.

Personal protective equipment:

Respiratory protection:

Not required under suitable use as setting the bottle on the printer. However, in case ventilation is not sufficient, wear respiratory protection.

Hand protection:

Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, use protective gloves.

Eye protection:

Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, wear safety glasses or chemical splash goggles.

Skin protection:	Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, wear protective clothing.
Hygiene measures:	Wash hands after handling. In case contact with clothing, wash before reuse. Do not eat, drink or smoke in handling or storage area.
Environmental exposure control:	Avoid release to the environment.

## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance:	Black Liquid
Odour:	Slightly
pH:	No data available
Boiling point:	No data available
Flash point:	> 100 °C
Flammability(solid, gas):	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Density:	1.1 g/cm <sup>3</sup>
Solubility:	No data available
Water solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Viscosity:	≤ 60 s Transversale section: 6 mm Method: 2431 '84 (ISO 6)
Vapor density:	No data available
Evaporation rate:	No data available
Solids by weight:	40%
Melting point:	No data available

### 9.2. Other information: No information

## 10. Stability and reactivity

10.1. Reactivity:	No data available
10.2. Chemical stability:	Stable under normal temperature
10.3. Possibility of hazardous reactions:	Not expected
10.4. Conditions to avoid:	Taking the product type into account, it is advisable to leave the product in its original packaging thus avoiding transferring it.
10.5. Incompatible materials:	Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
10.6. Hazardous decomposition products:	No data available

## 11. Toxicological information

### 11.1. Information on toxicological effects

Routes Of Overexposure:	Eye, skin, inhalation, and oral
Acute toxicity:	Oral LD50 No data available Dermal LD50 No data available Inhalant LC50 No data available
Skin corrosion/irritation:	No data available Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may be absorbed through the skin.

Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitisation:	No data available
Germ cell mutagenicity:	No data available
Reproductive toxicity:	No data available
Carcinogenicity:	None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)
STOT-single exposure:	Overexposure of eye may be mildly irritating. Overexposure of skin may cause irritation and in some people swelling and redness. Inhalation may result in respiratory irritation and anesthesia. Ingestion may cause an upset stomach.
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available

## 12. Ecological information

12.1. Toxicity:	No data available
12.2. Persistence and degradability:	No data available
12.3. Bioaccumulative potential:	No data available
12.4. Mobility in soil:	No data available
12.5. Results of PBT and vPvB assessment:	No data available
12.6. Other adverse effects:	No data available

## 13. Disposal considerations

### 13.1. Waste treatment methods:

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

## 14. Transport information

14.1. UN Class/UN Number:	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.2. UN proper shipping name:	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.3. Transport hazard class(es):	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.4. Packing group:	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.5. Environmental hazards:	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.6. Special precautions for user:	Transport and storage of the product in accordance with general precautions and instructions mentioned in this <b>SDS</b> .
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code:	Not applicable

## 15. Regulatory information

### EU Information:

Chemical Safety Assessment according to (EC)No. 1907/2006:

This product has not carried out any Chemical Safety Assessment yet.

### US Information:

Toxic Substances Control Act (TSCA): All ingredients are listed on the TSCA Inventory.

California Proposition 65: Not regulated

SARA TITLE III: Not regulated

Australia Information:

Hazardous statement: Not classified as hazardous according to NOHSC criteria.

**International Information:**

None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)

**16. Other information**

List of relevant H-Statements in section 3: Nothing

List of relevant R-phrases: Nothing

The information in this **Safety Data Sheet (SDS)** is believed to be correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is subject to revision as additional knowledge and experience is gained. Roland DG does not warrant the completeness or accuracy of the information contained herein.

## Safety Data Sheet

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

SUBLIMATION INK, SBL2-YE

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Inkjet Printing

#### 1.3. Details of the supplier of the safety data sheet

Manufacture's name: Roland DG Corporation  
Address: 1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Phone: + 81-53-484-1224  
Fax: + 81-53-484-1226

E-mail Address:

Revision: 20 March, 2014

#### 1.4. Emergency telephone:

### 2. Hazard identification

#### 2.1. Classification of the substance or mixture

This product is not classified as hazardous according to Directive 1999/45/EC.

This product is not classified as hazardous according to GHS criteria.

#### 2.2. GHS label elements, including precautionary statements

The product does not need to be labelled in accordance with GHS criteria.

#### 2.3. Other hazards

##### Potential Health Effects:

Eyes: Contact with eye may be mildly irritating.  
Skin: Contact with skin may cause irritation, swelling or redness.  
Inhalation: Exposure to vapors (mist) will cause respiratory irritation and anesthesia.  
Ingestion: May cause upset stomach.  
Chronic Health Hazards: None Known.  
Carcinogenicity: None of the ingredients in this ink is listed by IARC as a carcinogen.

### 3. Composition/information on ingredients

**Chemical nature:** mixture

Composition	CAS No.	EC No.	EU registration No.	% By Weight	Classification EC No. 1272/2008	Classification 67/548/EEC
Water	7732-18-5	231-791-2	Exemption	50-70	Not classified as hazardous	Not classified as hazardous
Glycerol	56-81-5	200-289-5	N/A for the moment	20-30	Not classified as hazardous	Not classified as hazardous
Disperse dye	C.B.I.	C.B.I.	N/A for the moment	1-3	Not classified as hazardous	Not classified as hazardous
Sodium naphthalen sulfonate	9084-06-4	-	N/A for the moment	1-3	Eye Irrit. 2: H319 STOT SE 3: H335 Skin Irrit. 2: H315	Xi: R36/37/38

\*C.B.I.: Confidential Business Information

\*For the full text of the H-Statements and R-phrases mentioned in this Section, see Section 16.

### 4. First aid measures

#### 4.1. Description of first aid measures

- Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids open during flushing. Call a physician.
- Skin:** In case of contact, immediately flush with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. **If swelling or redness occurs**, call a physician.
- Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- Ingestion:** If swallowed, DO NOT induce vomiting. Seek immediate medical advice.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Eyes:** Contact with eye may be mildly irritating.
- Skin:** Contact with skin may cause irritation, swelling or redness.
- Inhalation:** Exposure to vapors (mist) will cause respiratory irritation and anesthesia.
- Ingestion:** May cause upset stomach.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No information

### 5. Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media:

Do NOT use water jet.

#### 5.2. Special hazards arising from the substance or mixture

Not Flammable, Flash Point: >100 °C

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health. Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective equipment.  
Applying direct water may be dangerous because fire may expand to surroundings.

## 6. Accidental release measures

### General:

Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill. Absorb spill with sand or earth then place in a chemical waste container.

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus and wear appropriate personal protective equipment.

### 6.2. Environmental precautions

Dike spill. Prevent liquid from entering sewers, waterways or low areas.

### 6.3. Methods and material for containment and cleaning up

Soak up with sand or earth. Sweep up material and dispose as waste following local regulations. Scrub contaminated area with detergent and water.

### 6.4. Reference to other sections

Refer to "Section 8 Exposure controls/ personal protection" and "Section 13 Disposal consideration" as appropriate.

## 7. Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with eyes, skin and clothing. Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink. Do not dismantle container.

### 7.2. Conditions for safe storage, including any incompatibilities

Do not store the product in high or freezing temperatures. Keep the product out of direct sunlight. Do not store the product with oxidizing agents or explosives.

7.3. Specific end use(s): Inkjet printing

## 8. Exposure controls/ personal protection

### 8.1. Control parameters

Occupational Exposure Limits:

EU: DNEL

components	Long term exposure	Short term exposure
Glycerol	56mg/m <sup>3</sup>	-

REACH Toxicological Information (Workers - Hazard via inhalation route)

US:

components	OSHA:PEL	ACGIH:TLV
Glycerol (mist)	15mg/m <sup>3</sup>	10mg/m <sup>3</sup>

Australia: OELs

components	TWA	STEL
Glycerol (mist)	10mg/m <sup>3</sup>	-

### 8.2. Exposure controls

Occupational exposure control: Control the airborne concentrations below the exposure limits. Use only with adequate ventilation.

Personal protective equipment:	
Respiratory protection:	Not required under suitable use as setting the bottle on the printer. However, in case ventilation is not sufficient, wear respiratory protection.
Hand protection:	Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, use protective gloves.
Eye protection:	Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, wear safety glasses or chemical splash goggles.
Skin protection:	Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, wear protective clothing.
Hygiene measures:	Wash hands after handling. In case contact with clothing, wash before reuse. Do not eat, drink or smoke in handling or storage area.
Environmental exposure control:	Avoid release to the environment.

## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance:	Yellow Liquid
Odour:	Slightly
pH:	No data available
Boiling point:	No data available
Flash point:	> 100 °C
Flammability(solid, gas):	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Density:	1.08 g/cm <sup>3</sup>
Solubility:	No data available
Water solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Viscosity:	≤ 60 s Transversale section: 6 mm Method: 2431 '84 (ISO 6)
Vapor density:	No data available
Evaporation rate:	No data available
Solids by weight:	35%
Melting point:	No data available

### 9.2. Other information: No information

## 10. Stability and reactivity

10.1. Reactivity:	No data available
10.2. Chemical stability:	Stable under normal temperature
10.3. Possibility of hazardous reactions:	Not expected
10.4. Conditions to avoid:	Taking the product type into account, it is advisable to leave the product in its original packaging thus avoiding transferring it.
10.5. Incompatible materials:	Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
10.6. Hazardous decomposition products:	No data available

## 11. Toxicological information

### 11.1. Information on toxicological effects

Routes Of Overexposure:	Eye, skin, inhalation, and oral	
Acute toxicity:	Oral LD50	No data available
	Dermal LD50	No data available
	Inhalant LC50	No data available
Skin corrosion/irritation:	No data available Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may be absorbed through the skin.	
Serious eye damage/eye irritation:	No data available	
Respiratory or skin sensitisation:	No data available	
Germ cell mutagenicity:	No data available	
Reproductive toxicity:	No data available	
Carcinogenicity:	None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)	
STOT-single exposure:	Overexposure of eye may be mildly irritating. Overexposure of skin may cause irritation and in some people swelling and redness. Inhalation may result in respiratory irritation and anesthesia. Ingestion may cause an upset stomach.	
STOT-repeated exposure:	No data available	
Aspiration hazard:	No data available	

## 12. Ecological information

12.1. Toxicity:	No data available
12.2. Persistence and degradability:	No data available
12.3. Bioaccumulative potential:	No data available
12.4. Mobility in soil:	No data available
12.5. Results of PBT and vPvB assessment:	No data available
12.6. Other adverse effects:	No data available

## 13. Disposal considerations

### 13.1. Waste treatment methods:

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

## 14. Transport information

14.1. UN Class/UN Number:	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.2. UN proper shipping name:	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.3. Transport hazard class(es):	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.4. Packing group:	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.5. Environmental hazards:	
ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.6. Special precautions for user:	Transport and storage of the product in accordance with general precautions and instructions mentioned in this <b>SDS</b> .
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code:	Not applicable

## 15. Regulatory information

### EU Information:

Chemical Safety Assessment according to (EC)No. 1907/2006:

This product has not carried out any Chemical Safety Assessment yet.

### US Information:

Toxic Substances Control Act (TSCA): All ingredients are listed on the TSCA Inventory.

California Proposition 65: Not regulated

SARA TITLE III: Not regulated

### Australia Information:

Hazardous statement: Not classified as hazardous according to NOHSC criteria.

### International Information:

None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)

## 16. Other information

### List of relevant H-Statements in section 3:

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H315 Causes skin irritation.

### List of relevant R-phrases:

R36/37/38 Irritating to eyes, respiratory system and skin.

The information in this **Safety Data Sheet (SDS)** is believed to be correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is subject to revision as additional knowledge and experience is gained. Roland DG does not warrant the completeness or accuracy of the information contained herein.

## Safety Data Sheet

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

SUBLIMATION INK, SBL2-MG

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Inkjet Printing

#### 1.3. Details of the supplier of the safety data sheet

Manufacture's name: Roland DG Corporation  
Address: 1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Phone: + 81-53-484-1224  
Fax: + 81-53-484-1226

E-mail Address:

Revision: 20 March, 2014

#### 1.4. Emergency telephone:

### 2. Hazard identification

#### 2.1. Classification of the substance or mixture

This product is not classified as hazardous according to Directive 1999/45/EC.

This product is not classified as hazardous according to GHS criteria.

#### 2.2. GHS label elements, including precautionary statements

The product does not need to be labelled in accordance with GHS criteria.

#### 2.3. Other hazards

##### Potential Health Effects:

Eyes: Contact with eye may be mildly irritating.  
Skin: Contact with skin may cause irritation, swelling or redness.  
Inhalation: Exposure to vapors (mist) will cause respiratory irritation and anesthesia.  
Ingestion: May cause upset stomach.  
Chronic Health Hazards: None Known.  
Carcinogenicity: None of the ingredients in this ink is listed by IARC as a carcinogen.

### 3. Composition/information on ingredients

**Chemical nature:** mixture

Composition	CAS No.	EC No.	EU registration No.	% By Weight	Classification EC No. 1272/2008	Classification 67/548/EEC
Water	7732-18-5	231-791-2	Exemption	50-70	Not classified as hazardous	Not classified as hazardous
Glycerol	56-81-5	200-289-5	N/A for the moment	20-30	Not classified as hazardous	Not classified as hazardous
Disperse dye	C.B.I.	C.B.I.	N/A for the moment	3-6	Not classified as hazardous	Not classified as hazardous

\*C.B.I.: Confidential Business Information

### 4. First aid measures

#### 4.1. Description of first aid measures

- Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids open during flushing. Call a physician.
- Skin:** In case of contact, immediately flush with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. **If swelling or redness occurs**, call a physician.
- Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- Ingestion:** If swallowed, DO NOT induce vomiting. Seek immediate medical advice.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Eyes:** Contact with eye may be mildly irritating.
- Skin:** Contact with skin may cause irritation, swelling or redness.
- Inhalation:** Exposure to vapors (mist) will cause respiratory irritation and anesthesia.
- Ingestion:** May cause upset stomach.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No information

#### 5.1. Extinguishing media

- Suitable extinguishing media:**  
Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media:**  
Do NOT use water jet.

#### 5.2. Special hazards arising from the substance or mixture

Not Flammable, Flash Point: >100 °C

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health. Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### 5.3. Advice for firefighters

- Wear self-contained breathing apparatus (SCBA) and full protective equipment.  
Applying direct water may be dangerous because fire may expand to surroundings.

## 6. Accidental release measures

### General:

Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill. Absorb spill with sand or earth then place in a chemical waste container.

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus and wear appropriate personal protective equipment.

### 6.2. Environmental precautions

Dike spill. Prevent liquid from entering sewers, waterways or low areas.

### 6.3. Methods and material for containment and cleaning up

Soak up with sand or earth. Sweep up material and dispose as waste following local regulations. Scrub contaminated area with detergent and water.

### 6.4. Reference to other sections

Refer to "Section 8 Exposure controls/ personal protection" and "Section 13 Disposal consideration" as appropriate.

## 7. Handling and storage

### 7.1. Precautions for safe handling

**Avoid contact with eyes, skin and clothing. Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink. Do not dismantle container.**

### 7.2. Conditions for safe storage, including any incompatibilities

**Do not store the product in high or freezing temperatures. Keep the product out of direct sunlight. Do not store the product with oxidizing agents or explosives.**

### 7.3. Specific end use(s): Inkjet printing

## 8. Exposure controls/ personal protection

### 8.1. Control parameters

#### Occupational Exposure Limits:

#### EU: DNEL

components	Long term exposure	Short term exposure
Glycerol	56mg/m <sup>3</sup>	-

**REACH Toxicological Information (Workers - Hazard via inhalation route)**

#### US:

components	OSHA:PEL	ACGIH:TLV
Glycerol (mist)	15mg/m <sup>3</sup>	10mg/m <sup>3</sup>

#### Australia: OELs

components	TWA	STEL
Glycerol (mist)	10mg/m <sup>3</sup>	-

### 8.2. Exposure controls

Occupational exposure control: Control the airborne concentrations below the exposure limits. Use only with adequate ventilation.

#### Personal protective equipment:

Respiratory protection: Not required under suitable use as setting the bottle on the printer. However, in case ventilation is not sufficient, wear respiratory protection.

Hand protection: Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, use protective gloves.

Eye protection: Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, wear safety glasses or chemical splash goggles.

Skin protection:	Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, wear protective clothing.
Hygiene measures:	Wash hands after handling. In case contact with clothing, wash before reuse. Do not eat, drink or smoke in handling or storage area.
Environmental exposure control:	Avoid release to the environment.

## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance:	Magenta Liquid
Odour:	Slightly
pH:	No data available
Boiling point:	No data available
Flash point:	> 100 °C
Flammability(solid, gas):	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Density:	1.08 g/cm <sup>3</sup>
Solubility:	No data available
Water solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Viscosity:	≤ 60 s Transversale section: 6 mm Method: 2431 '84 (ISO 6)
Vapor density:	No data available
Evaporation rate:	No data available
Solids by weight:	35%
Melting point:	No data available

### 9.2. Other information: No information

## 10. Stability and reactivity

10.1. Reactivity:	No data available
10.2. Chemical stability:	Stable under normal temperature
10.3. Possibility of hazardous reactions:	Not expected
10.4. Conditions to avoid:	Taking the product type into account, it is advisable to leave the product in its original packaging thus avoiding transferring it.
10.5. Incompatible materials:	Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
10.6. Hazardous decomposition products:	No data available

## 11. Toxicological information

### 11.1. Information on toxicological effects

Routes Of Overexposure:	Eye, skin, inhalation, and oral	
Acute toxicity:	Oral LD50	No data available
	Dermal LD50	No data available
	Inhalant LC50	No data available
Skin corrosion/irritation:	No data available	
	Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may be absorbed through the skin.	
Serious eye damage/eye irritation:	No data available	
Respiratory or skin sensitisation:	No data available	
Germ cell mutagenicity:	No data available	
Reproductive toxicity:	No data available	

Carcinogenicity:	None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)
STOT-single exposure:	Overexposure of eye may be mildly irritating. Overexposure of skin may cause irritation and in some people swelling and redness. Inhalation may result in respiratory irritation and anesthesia. Ingestion may cause an upset stomach.
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available

## 12. Ecological information

12.1. Toxicity:	No data available
12.2. Persistence and degradability:	No data available
12.3. Bioaccumulative potential:	No data available
12.4. Mobility in soil:	No data available
12.5. Results of PBT and vPvB assessment:	No data available
12.6. Other adverse effects:	No data available

## 13. Disposal considerations

13.1. Waste treatment methods:	Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.
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## 14. Transport information

14.1. UN Class/UN Number:	ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.2. UN proper shipping name:	ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.3. Transport hazard class(es):	ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.4. Packing group:	ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.5. Environmental hazards:	ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.6. Special precautions for user:	Transport and storage of the product in accordance with general precautions and instructions mentioned in this <b>SDS</b> .	
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code:	Not applicable	

## 15. Regulatory information

EU Information:  
Chemical Safety Assessment according to (EC)No. 1907/2006:  
This product has not carried out any Chemical Safety Assessment yet.

US Information:  
Toxic Substances Control Act (TSCA): All ingredients are listed on the TSCA Inventory.  
California Proposition 65: Not regulated  
SARA TITLE III: Not regulated

Australia Information:  
Hazardous statement: Not classified as hazardous according to NOHSC criteria.

### International Information:

None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)

**16. Other information**

List of relevant H-Statements in section 3: Nothing

List of relevant R-phrases: Nothing

The information in this **Safety Data Sheet (SDS)** is believed to be correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is subject to revision as additional knowledge and experience is gained. Roland DG does not warrant the completeness or accuracy of the information contained herein.

## Safety Data Sheet

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

SUBLIMATION INK, SBL2-CY

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Inkjet Printing

#### 1.3. Details of the supplier of the safety data sheet

Manufacture's name: Roland DG Corporation  
Address: 1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Phone: + 81-53-484-1224  
Fax: + 81-53-484-1226

E-mail Address:

Revision: 20 March, 2014

#### 1.4. Emergency telephone:

### 2. Hazard identification

#### 2.1. Classification of the substance or mixture

This product is not classified as hazardous according to Directive 1999/45/EC.

**This product is not classified as hazardous according to GHS criteria.**

#### 2.2. GHS label elements, including precautionary statements

**The product does not need to be labelled in accordance with GHS criteria.**

#### 2.3. Other hazards

##### Potential Health Effects:

Eyes: Contact with eye may be mildly irritating.  
Skin: Contact with skin may cause irritation, swelling or redness.  
Inhalation: Exposure to vapors (mist) will cause respiratory irritation and anesthesia.  
Ingestion: May cause upset stomach.  
Chronic Health Hazards: None Known.  
Carcinogenicity: None of the ingredients in this ink is listed by IARC as a carcinogen.

### 3. Composition/information on ingredients

**Chemical nature:** mixture

Composition	CAS No.	EC No.	EU registration No.	% By Weight	Classification EC No. 1272/2008	Classification 67/548/EEC
Water	7732-18-5	231-791-2	Exemption	50-70	Not classified as hazardous	Not classified as hazardous
Glycerol	56-81-5	200-289-5	N/A for the moment	20-30	Not classified as hazardous	Not classified as hazardous
Disperse dye	C.B.I.	C.B.I.	N/A for the moment	3-6	Not classified as hazardous	Not classified as hazardous

\*C.B.I.: Confidential Business Information

### 4. First aid measures

#### 4.1. Description of first aid measures

- Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids open during flushing. Call a physician.
- Skin:** In case of contact, immediately flush with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. **If swelling or redness occurs,** call a physician.
- Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- Ingestion:** If swallowed, DO NOT induce vomiting. Seek immediate medical advice.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Eyes:** Contact with eye may be mildly irritating.
- Skin:** Contact with skin may cause irritation, swelling or redness.
- Inhalation:** Exposure to vapors (mist) will cause respiratory irritation and anesthesia.
- Ingestion:** May cause upset stomach.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No information

### 5. Firefighting measures

Suitable extinguishing media:

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media:

Do NOT use water jet.

#### 5.2. Special hazards arising from the substance or mixture

Not Flammable, Flash Point: >100 °C

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health. Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective equipment.  
Applying direct water may be dangerous because fire may expand to surroundings.

## 6. Accidental release measures

### General:

Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill. Absorb spill with sand or earth then place in a chemical waste container.

- 6.1. Personal precautions, protective equipment and emergency procedures  
Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus and wear appropriate personal protective equipment.
- 6.2. Environmental precautions  
Dike spill. Prevent liquid from entering sewers, waterways or low areas.
- 6.3. Methods and material for containment and cleaning up  
Soak up with sand or earth. Sweep up material and dispose as waste following local regulations. Scrub contaminated area with detergent and water.
- 6.4. Reference to other sections  
Refer to "Section 8 Exposure controls/ personal protection" and "Section 13 Disposal consideration" as appropriate.

## 7. Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with eyes, skin and clothing. Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink. Do not dismantle container.

### 7.2. Conditions for safe storage, including any incompatibilities

Do not store the product in high or freezing temperatures. Keep the product out of direct sunlight. Do not store the product with oxidizing agents or explosives.

### 7.3. Specific end use(s): Inkjet printing

## 8. Exposure controls/ personal protection

### 8.1. Control parameters

Occupational Exposure Limits:

EU: DNEL

components	Long term exposure	Short term exposure
Glycerol	56mg/m <sup>3</sup>	-

REACH Toxicological Information (Workers - Hazard via inhalation route)

US:

components	OSHA:PEL	ACGIH:TLV
Glycerol (mist)	15mg/m <sup>3</sup>	10mg/m <sup>3</sup>

Australia: OELs

components	TWA	STEL
Glycerol (mist)	10mg/m <sup>3</sup>	-

### 8.2. Exposure controls

Occupational exposure control: Control the airborne concentrations below the exposure limits. Use only with adequate ventilation.

Personal protective equipment:

- Respiratory protection: Not required under suitable use as setting the bottle on the printer. However, in case ventilation is not sufficient, wear respiratory protection.
- Hand protection: Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, use protective gloves.
- Eye protection: Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, wear safety glasses or chemical splash goggles.

Skin protection:	Not required under suitable use as setting the bottle on the printer. However, in case of direct contact to ink, wear protective clothing.
Hygiene measures:	Wash hands after handling. In case contact with clothing, wash before reuse. Do not eat, drink or smoke in handling or storage area.
Environmental exposure control:	Avoid release to the environment.

## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance:	Cyan Liquid
Odour:	Slightly
pH:	No data available
Boiling point:	No data available
Flash point:	> 100 °C
Flammability(solid, gas):	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Density:	1.08 g/cm <sup>3</sup>
Solubility:	No data available
Water solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Viscosity:	≤ 60 s Transversale section: 6 mm Method: 2431 '84 (ISO 6)
Vapor density:	No data available
Evaporation rate:	No data available
Solids by weight:	34%
Melting point:	No data available

### 9.2. Other information: No information

## 10. Stability and reactivity

10.1. Reactivity:	No data available
10.2. Chemical stability:	Stable under normal temperature
10.3. Possibility of hazardous reactions:	Not expected
10.4. Conditions to avoid:	Taking the product type into account, it is advisable to leave the product in its original packaging thus avoiding transferring it.
10.5. Incompatible materials:	Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
10.6. Hazardous decomposition products:	No data available

## 11. Toxicological information

### 11.1. Information on toxicological effects

Routes Of Overexposure:	Eye, skin, inhalation, and oral	
Acute toxicity:	Oral LD50	No data available
	Dermal LD50	No data available
	Inhalant LC50	No data available

Skin corrosion/irritation:	No data available Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may be absorbed through the skin.
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Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitisation:	No data available
Germ cell mutagenicity:	No data available
Reproductive toxicity:	No data available
Carcinogenicity:	None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)
STOT-single exposure:	Overexposure of eye may be mildly irritating. Overexposure of skin may cause irritation and in some people swelling and redness. Inhalation may result in respiratory irritation and anesthesia. Ingestion may cause an upset stomach.
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available

## 12. Ecological information

12.1. Toxicity:	No data available
12.2. Persistence and degradability:	No data available
12.3. Bioaccumulative potential:	No data available
12.4. Mobility in soil:	No data available
12.5. Results of PBT and vPvB assessment:	No data available
12.6. Other adverse effects:	No data available

## 13. Disposal considerations

- 13.1. Waste treatment methods:  
Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

## 14. Transport information

14.1. UN Class/UN Number: ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.2. UN proper shipping name: ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.3. Transport hazard class(es): ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.4. Packing group: ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.5. Environmental hazards: ADR/ADG/DOT, IMDG, or IATA :	Not applicable
14.6. Special precautions for user:	Transport and storage of the product in accordance with general precautions and instructions mentioned in this <b>SDS</b> .
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code:	Not applicable

## 15. Regulatory information

### EU Information:

Chemical Safety Assessment according to (EC)No. 1907/2006:  
This product has not carried out any Chemical Safety Assessment yet.

### US Information:

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California Proposition 65: Not regulated  
SARA TITLE III: Not regulated

Australia Information:

Hazardous statement: Not classified as hazardous according to NOHSC criteria.

**International Information:**

None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)

**16. Other information**

List of relevant H-Statements in section 3: Nothing

List of relevant R-phrases: Nothing

The information in this **Safety Data Sheet (SDS)** is believed to be correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is subject to revision as additional knowledge and experience is gained. Roland DG does not warrant the completeness or accuracy of the information contained herein.