

Material Safety Data Sheet

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

1.1. Product identifier:

CLEANING LIQUID FOR SOL INK, SL-CL

CLEANING LIQUID,(SL) 500ML

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:

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1.4. Emergency telephone

2. Hazard Identification

2.1. Classification of the substance or mixture

This product is not classified as hazardous according to Regulation (EC) No1272/2008 and Directive 67/548/EEC.

2.2 Label elements

The product does not need to be labelled in accordance with Regulation (EC) No1272/2008.

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 product 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
Dipropylene glycol monomethyl ether	34590-94-8	252-104-2	N/A for the moment	40-50	Not classified as hazardous	Not classified as hazardous
Diethylene glycol diethyl ether	112-36-7	203-963-7	N/A for the moment	40-50	Not classified as hazardous	Not classified as hazardous
Triethylene glycol monomethyl ether	112-35-6	203-962-1	N/A for the moment	20-30	Not classified as hazardous	Not classified as hazardous

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 skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse.
- 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. Identification of any immediate medical attention and special treatment needed

Refer to "Section 4.1. Description of first aid measures".

5. Fire Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray, dry chemical, carbon dioxide or foam

Unsuitable extinguishing media:

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

5.2. Special hazards arising from the substance or mixture

Combustible liquid under Hazard Communication Standard (HCS, U.S.A)

Flash Point: about 71 deg.C (closed cup)

5.3. Advice for firefighters

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

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 for 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. Put protection wear that has electrical conductivity in case of work. 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 use(s):

Inkjet printing

8. Exposure Controls/ Personal Protection

8.1. Control parameters

Occupational Exposure Limits:

EU

components	TWA
Dipropylene glycol monomethyl ether	308mg/m ³ , 50ppm

Australia

components	TWA
Dipropylene glycol monomethyl ether	308mg/m ³ , 50ppm

US

components	OSHA:PEL	ACGIH:TLV
Dipropylene glycol monomethyl ether	TWA: 600mg/m ³ , 100ppm	TWA: 100ppm, 606 mg/m ³ STEL: 150ppm, 909 mg/m ³

California (California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

components	PEL	STEL
Dipropylene glycol monomethyl ether	100ppm, 600 mg/m ³	150ppm, 900 mg/m ³
Diethylene glycol diethyl ether	5ppm, 33mg/m ³	-

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 cartridge on the printer. However, in case ventilation is not sufficient, wear respiratory protection.
Hand protection:	Not required under suitable use as setting the cartridge on the printer. However, in case of bottle container, use protective gloves if necessary.
Eye protection:	Not required under suitable use as setting the cartridge on the printer. However, in case of bottle container, wear safety glasses or chemical splash goggles if necessary.
Skin protection:	Not required under suitable use as setting the cartridge on the printer. However, in case of bottle container, wear protective clothing if necessary.
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	Clear Liquid
Odor:	Slightly
pH:	Not applicable
Boiling point:	No data available
Flash point:	about 71 deg.C (closed cup)
Flammability(solid,gas):	Not applicable
Explosive properties:	Explosive limits: 1.3~10.4v/v% (Dipropylene glycol monomethyl ether)
Oxidizing properties:	None
Vapor pressure:	No data available
Relative density:	No data available
Solubility	No data available
Water Solubility:	Soluble
Partition coefficient: n-octanol/water:	No data available
Viscosity:	No data available
Vapor density:	Greater than 1 (air=1)
Evaporation rate:	No data available
Melting point:	No data available

9.2. Other information: No information

10. Stability and Reactivity

10.1. Reactivity:	No reactivity under normal temperature
10.2. Chemical stability:	Stable under normal temperature
10.3. Possibility of hazardous reactions:	Not expected
10.4 Conditions to avoid:	High and freezing temperatures
10.5. Incompatible materials:	Oxidizers and explosives
10.6 Hazardous decomposition products:	None under normal temperature

11. Toxicological Information

*Based on toxicology data of chemically similar material

11.1. Information on toxicological effects

Routes Of Overexposure:	Eye, skin, inhalation, and oral
Acute toxicity:	Oral LD ₅₀ >2500mg/kg(Rat)* Dermal LD ₅₀ >2000mg/kg(Rat)* Inhalant LC ₅₀ No data available
Skin corrosion/irritation:	Mild irritant (Rabbit, OECD404)*
Serious eye damage/eye irritation:	Mild irritant (Rabbit, OECD405)*
Respiratory or skin sensitisation:	Non-sensitiser (LLNA, OECD 429)*
Germ cell mutagenicity:	Negative (by Ames Test)*
Carcinogenicity:	None of the ingredients in this product is listed by IARC as a carcinogen.
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:	Has not carried out PBT and vPvB assessment.
12.6. Other adverse effects	No data available

13. Disposal Considerations

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. Transportation Information

UN Class/UN Number:	Not applicable
ADR/ADG/DOT, IMDG, or IATA :	Not hazardous classification

15. Regulatory Considerations

EU Information:

Chemical Safety Assessment according to (EC)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.

Product contains Dipropylene glycol monomethyl ether that is subject to a TSCA Section 4 test rule and to TSCA Section 12(b) export notification requirements.

California; Proposition 65: Not regulated

SARA TITLE III:

Section 313:

Diethylene glycol diethyl ether (Chemical Category N230)

Triethylene glycol monomethyl ether (Chemical Category N230)

Australia Information:

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

16. Other Information

List of relevant H-Statements: Nothing

List of relevant R-phrases: Nothing

The information in this Material Safety Data Sheet (MSDS) 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.