Safety Data Sheet

1. Product and Company Identification

Product name:

CLEANING LIQUID FOR EcoXtreme Ink, AI-CL MAINTENANCE LIQUID FOR EcoXtreme Ink, AI-ML CLEANING LIQUID,(AI-CL) 200ML/ CLEANING LIQUID,(AI-CL) 500ML

Manufacture: Address: Phone: Fax:	Roland DG Corporation 1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi, Shizuoka-ken, 431-2103 JAPAN + 81-53-484-1224 + 81-53-484-1226
Importer/Supplier: Address: Phone: Fax:	Roland DGA Corporation 15363 Barranca Parkway Irvine, CA 92618-2201 U.S.A. 949-727-2100 949 727 2112
Emergency telephone:	949-727-2100
Use of the product: Date of issue:	Inkjet Printing 28 December, 2015

2. Hazard Identification

2.1 Emergency Overview:	
Appearance and odor:	Clear Liquid

This product is not classified as dangerous according to GHS.

GHS label elements, incliding precautionary statements The product does not need to be labelled in accordance with GHS criteria.

2.2. OSHA regulatory status

This product is not considered hazardous material by the OSHA Communication Standard (29 CFR 1910.1200)

2.3. Potential health effects	
Likely route of exposure:	Eye, skin, inhalation or oral.
Eyes:	Contact with eye may be 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:	No information available.
Carcinogenicity:	None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)

See section 11 for more information.

2.4. Potential environmental effects See section 12 for Ecological information.



3. Composition/Information on Ingredients

Composition	CAS No.	% By Weight	Classification HCS
2-(2-butoxyethoxy)ethyl acetate	124-17-4	>98%	Not classified as hazardous

4. First Aid Measures

4.1. First aid procedures	
Eye	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. Note to physicians

May cause skin and eye irritation. Excessive inhalation of mist will cause respiratory irritation.

5. Fire Fighting Measures

5.1. Flammable properties:

Hazardous Decomposition Products: Burning in insufficient air supply may produce toxic fume of carbon monoxide. Flash point: 105deg.C (closed cup)

5.2. Extinguishing media

Suitable extinguishing media: Water spray, dry chemical, carbon dioxide or foam Unsuitable extinguishing media: No information

5.3. Protection of fire fighters

Special hazards arising from the substance or mixture Toxic and irritating fume and/or gases may generate by combustion.

Protective equipment and precautions 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

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

6.2. Environmental precautions

Wipe off spillage. Prevent liquid from entering sewers, waterways or low areas.

6.3. Methods for containment

Dike spilled product.



6.4. Methods for Clean-up

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

6.5. Other information

No information

6.6. Spill or leak statements by type of chemical

Eliminate all ignition sources. Use appropriate personal protective equipment (PPE). Absorb and/or contain spill with inert sand, then place in suitable container. For large spills; use water spray to disperse vapers and dilute spill to a nonflamable mixture. Do not flush to sewer. Prevent run-off from entering drains, sewers or waterways.

7. Handling And Storage

7.1. 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. Make sure cartridge is dry before insertion into printer housing.

7.2. Storage

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.

8. Exposure Controls/Personal Protection

8.1. Exposure Guidelines

Occupational Exposure Limits: Not specified.

8.2. Engineering controls Use only with adequate ventilation.

8.3. Personal protective equipment (PPE)

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

9. Physical and Chemical Properties		
Appearance:	Clear Liquid	
Odor:	Slightly solvent odor	
pH:	No data available	
Boiling point:	245-247deg.C	
Flash point:	>100 °C	
Flammability(solid,gas):	No data available	
Explosive properties:	explosive limit	-lower limits 0.6vol%
		-upper limits 10.7vol%
Oxidizing properties:	None	
Vapor pressure:	5.3Pa @ 20deg.C	
Relative density:	0.98g/cm ³ @ 20deg.C	2
Solubility:	No data available	



Water Solubility:	6.5g/100ml @ 20deg.C
Partition coefficient: n-octanol/water:	2.9
Viscosity:	No data available
Vapor density:	7.0(Air=1)
Evaporation rate:	No data available
Melting point:	-32deg.C
Volatile organic compounds (VOC)	980.0 gram/liter (maximum value)
content:	

10. Stability and Reactivity

10.1. Reactivity:	No data available
10.2. Possibility of hazardous reactions:	Not expected
10.3. Chemical stability:	Stable under normal temperature
10.4. Conditions to avoid:	High and freezing temperatures
10.5. Incompatible materials:	Acids and oxidizing agents
10.6. Hazardous decomposition products:	Burning in insufficient air supply may produce toxic fume of carbon monoxide.

11.	Toxicological information		
	Acute toxicity:	Oral LD50	>6500mg/kg (Rat)
		Dermal LD50	>14500mg/kg (Rabbit)
		Inhalant LC50	>72500mg/m ³ (4hr@Rat)
	Skin corrosion/irritation:	Mild irritant (Rabbit OECD404)	
	Serious eye damage/eye irritation:	Mild irritant (Rabbit OECD405)	
	Respiratory or skin sensitisation:	No data available	
	Germ cell mutagenicity:	Negative (by Ames Test)	
	Reproductive toxicity:	No data available	
	Carcinogenicity:	None of the ingredients in this ink i	s listed by IARC as a carcinogen. (1,2A and 2B)
	STOT-single exposure:	Overexposure of eye may be mildly	virritating.
	STOT-single exposure:	1	v irritating. itation and in some people swelling and redness.
	STOT-single exposure:	1	itation and in some people swelling and redness.
	STOT-single exposure:	Overexposure of skin may cause irr	itation and in some people swelling and redness. irritation and anesthesia.
	STOT-single exposure: STOT-repeated exposure:	Overexposure of skin may cause irr Inhalation may result in respiratory	itation and in some people swelling and redness. irritation and anesthesia.
		Overexposure of skin may cause irr Inhalation may result in respiratory Ingestion may cause an upset stoma	itation and in some people swelling and redness. irritation and anesthesia.
12.	STOT-repeated exposure:	Overexposure of skin may cause irr Inhalation may result in respiratory Ingestion may cause an upset stoma No data available	itation and in some people swelling and redness. irritation and anesthesia.
12.	STOT-repeated exposure: Aspiration hazard:	Overexposure of skin may cause irr Inhalation may result in respiratory Ingestion may cause an upset stoma No data available	itation and in some people swelling and redness. irritation and anesthesia.
12.	STOT-repeated exposure: Aspiration hazard: Ecological Information Ecotoxicity: Persistence/Degradability:	Overexposure of skin may cause irr Inhalation may result in respiratory Ingestion may cause an upset stoma No data available No data available	itation and in some people swelling and redness. irritation and anesthesia.
12.	STOT-repeated exposure: Aspiration hazard: Ecological Information Ecotoxicity: Persistence/Degradability: Bioaccumulation/Accumulation:	Overexposure of skin may cause irr Inhalation may result in respiratory Ingestion may cause an upset stoma No data available No data available No data available No data available No data available	itation and in some people swelling and redness. irritation and anesthesia.
12.	STOT-repeated exposure: Aspiration hazard: Ecological Information Ecotoxicity: Persistence/Degradability:	Overexposure of skin may cause irr Inhalation may result in respiratory Ingestion may cause an upset stoma No data available No data available No data available No data available	itation and in some people swelling and redness. irritation and anesthesia.

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. Transport Information	
14.1. UN Class/UN Number	
DOT/ADR/ADG, IMDG, or IATA :	Not regulated
14.2. UN proper shipping name	
DOT/ADR/ADG, IMDG, or IATA :	Not regulated
14.3. Transport hazard class(es)	
DOT/ADR/ADG, IMDG, or IATA :	Not regulated
14.4. Packing group	
DOT/ADR/ADG, IMDG, or IATA :	Not regulated
14.5. Environmental hazards	
DOT/ADR/ADG, IMDG, or IATA :	Not regulated
14.6. Special precautions for user	Transport and storage of the product in accordance with general precautions and instructions mentioned in this SDS.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code

Not regulated

15. Regulatory Information

US Information:

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

California Proposition 65:	Not regulated
SARA TITLE III:	
Section 313:	2-(2-butoxyethoxy)ethyl acetate (Chemical Category N230)

EU Information:

Chemical Safety Assessment according to (EC)1907/2006:

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

Australia Information:

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

16. Other Information

NFPA 704: Hazard Rating System

Health - 1, Flammable - 1, Reactivity - 0 0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

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.