

Material Safety Data Sheet

1. Identification of the Substance/Preparation and of the Company/Undertaking

1.1. Product:

EcoXtreme LT Ink, AI2-BK

1.2. Manufacturer/Distributor:

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: + 81-53-484-1221

2. Composition Information

Ink Composition	CAS No.	% By Weight
Resin (PVC and PVAc copolymer)	-	1% - 5%
Black Pigment	-	1% - 5%
1-Methyl-2-pyrrolidinone	872-50-4	1% - 5%
2-Ethoxy Ethyl Ether	112-36-7	20% - 30%
Tetraethylene Glycol Dimethyl Ether	143-24-8	10% - 15%
Ethylene Glycol Monobutyl Ether Acetate (in pigment dispersion)	112-07-2	10% - 30%
Organic Materials	-	balance
Surfactant	-	0.1% - 1.0%

3. Hazard Identification

3.1 Emergency Overview:

Ink component is a black liquid that causes eye, nose or throat irritation, and that effects anesthesia, if inhales. Ink may flash, when under high temperature. Avoid contact with eyes or clothing. In the case of skin contact, wash with soap and water. Keep out of reach of children.

3.2 Potential Health Effects

- 3.2.1 Inhalation: May cause respiratory irritation.
- 3.2.2 Skin Contact: May cause severe skin irritation.
- 3.2.3 Eye Contact: May cause severe eye irritation.
- 3.2.4 Ingestion: Ingestion may be harmful or fatal.

4. First Aid Measures

4.1 Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

4.2 Skin contact :

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.

4.3 Eye contact :

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

4.4 Ingestion :

If swallowed, Seek medical advice; and attention if stomach continues to be upset.

5. Fire Fighting Measures

5.1 Suitable extinguishing

media: Extinguishing Water spray, Media CO₂, Dry Chemical or Alcohol foam.

5.2 Fire Fighting Instructions: Hazardous gases/vapors produced in fire are carbon monoxide, carbon dioxide, oxides of nitrogen. Wear self-contained breathing apparatus (SCBA) and full protective equipment.

6. Accidental Release Measures

6.1 Personal protections: Remove the person of the leeward. Keep away the person from periphery of the place of the leakage. Ventilate sufficiently during clean-up in case of inside of a house.

6.2 Method for cleaning up: If a spill occurs, use sponges to wipe-up ink, then rinse area with damp cloth. Place waste in closed container for disposal. Do not disposal of waste to the sewer. Wash hands with soap and water.

7. Handling and Storage

7.1 Handling: 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 ink.

7.2 Storage: Store in a cool, dry place.
Avoid freezing or extended storage in high temperatures.
Avoid exposure to moisture.

8. Exposure Controls / Personal Protection

8.1 Engineering Controls: Use only with adequate ventilation.

8.2 Personal Protective Equipment:

8.2.1 Eye/Face Protection: Wear safety glasses, or where splash potential exists wear chemical splash goggles.

8.2.2 Respirators: Where the potential exists for airborne exposure, wear NIOSH approved respiratory protection.

8.2.3 Protective Clothing: Where there is potential for skin contact, have available and wear as appropriate impervious gloves, apron or smock.

9. Physical and Chemical Properties

Color: Black
Odor: Fruity odor
Boiling point/boiling range: No data available
Solidification temperature: No data available
Flash point: approx. 75 °C
Ignition temperature: No data available
Viscosity: No data available
Surface Tension: No data available
Density: No data available
pH: No data available
Solid content: 10 - 20%

The Physical and chemical data given in Section 9 are typical values for this product and are not intended to be product specifications

10. Stability and Reactivity

10.1 Chemical Stability:

- 10.1.1 Stability: Stable at normal temperatures
- 10.1.2 Conditions to avoid: High and freezing temperatures
- 10.1.3 Materials to avoid: Oxidizers and explosives

10.2 Decomposition: Thermal decomposition may produce carbon dioxide, carbon monoxide.

11. Toxicological Information

11.1 Routes of Overexposure: Eye, skin, inhalation, and oral ingestion

11.2 Acute Health Hazards: Overexposure of the eye surface to ink may be mildly irritating. Overexposure of ink contact with the skin may cause irritation and in some people, swelling and redness. Intentional inhalation to ink vapors may result in respiratory tract irritation. Intentional or accidental oral ingestion may cause an upset stomach.

11.3 Chronic Health Hazards: None Known

11.4 Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

11.5 Toxicity Data: Oral LD50 > 2500 mg/kg (Rat)

11.6 Eye Irritating: Mildly or serious irritating (exposure time and amount)

11.7 Skin Irritating: Minimally irritating

11.8 Skin Sensitizing: None Known

The information shown in SECTION 3, Hazards identification, is based on toxicity profiles of similar materials or on the components present in this material.

12. Ecological Information

12.1 Ecotoxicity: No data available

12.2 Mobility: No data available

12.3 Persistence and

Degradability:

12.4 Bioaccumulative Potential No data available

12.5 Other Adverse Effects: No data available

13. Disposal Considerations

13.1 Waste Disposal: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

14. Transport Information

14.1 General: Not a regulated article under United States DOT, IATA, ADR, IMDG, or RID.

IATA

Proper shipping name: Not applicable

Hazard class: Not applicable

Packaging exceptions: None

Identification number: None

(UN)

Packing group: N/A

15. Regulatory Information**15.1 US Regulation:**

TSCA Section 4(a) Final Test Rules Regulated: Not regulated

TSCA Section 8(a) Preliminary Assessment Information Rule (PAIR): Not regulated

TSCA Section 8(a) Inventory Update Rule: Not regulated

TSCA Section 12(b) One-Time Export Notification Regulated: Not regulated

California Proposition 65: Not regulated

15.2 EU Information:

Symbols and indication according to 1999/45/EC: This ink does not meet the criteria for classification as dangerous.

16. Other Information

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.