

## INK CARTRIDGE (LC) (H086040-00-01)

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

#### 1.1 Identification of the substance or preparation:

**Product name** : INK CARTRIDGE (LC) (H086040-00)  
**Synonyms** : none  
  
**CAS No.** : N.A.  
**EC index No.** : N.A.  
**EINECS No.** : N.A.  
**RTECS No.** : N.A.  
  
**NFPA code** : N.D.  
**Molecular weight** : N.A.  
**Formula** : N.A.

#### 1.2 Use of the substance/preparation:

- Toner

#### 1.3 Company/undertaking identification:

NORITSU KOKI Co., Ltd.  
 579-1 Umehara  
 640-8550 Wakayama-shi Japan  
 Tel: +81 73 454 03 09  
 Fax: +81 73 454 46 18  
 e-mail address: msds@nkc.noritsu.co.jp

#### 1.4 Emergency telephone:

+32 14 58 45 45 (24h/24h)  
 Information centre on dangerous goods (BIG)  
 Technische Schoolstraat 43A, B-2440 Geel, Belgium

### 2. Hazards identification

- Not classified as dangerous in compliance with Directive 67/548/EEC and/or Directive 1999/45/EC

### 3. Composition/information on ingredients

Hazardous ingredients	CAS No.	Conc. (%)	Hazards (R-phrases)	Hazard symbol
	EINECS/ELINCS No.			
glycerol	56-81-5	20-25	- (2)	-
	200-289-5			

(1) For R-phrases in full: see heading 16

(2) Substance with a Community workplace exposure limit

(3) PBT-substance

### 4. First aid measures

#### 4.1 After inhalation:

- Remove the victim into fresh air  
 - Respiratory problems: consult a doctor/medical service

#### 4.2 Skin contact:

- Rinse with water  
 - Take victim to a doctor if irritation persists

#### 4.3 Eye contact:

- Rinse with water  
 - Take victim to an ophthalmologist if irritation persists

#### 4.4 After ingestion:

- Rinse mouth with water  
 - Do not induce vomiting  
 - Consult a doctor/medical service if you feel unwell

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# INK CARTRIDGE (LC) (H086040-00-01)

## 5. Fire-fighting measures

- 5.1 Suitable extinguishing media:**  
- All extinguishing media allowed
- 5.2 Unsuitable extinguishing media:**  
- No data available
- 5.3 Special exposure hazards:**  
- Not easily combustible  
- Upon combustion CO and CO2 are formed
- 5.4 Instructions:**  
- No specific fire-fighting instructions required
- 5.5 Special protective equipment for firefighters:**  
- Heat/fire exposure: compressed air/oxygen apparatus  
- Protective clothing

## 6. Accidental release measures

- 6.1 Personal precautions:**  
See heading 8.2/13
- 6.2 Environmental precautions:**  
- Contain leaking substance
- 6.3 Methods for cleaning up:**  
- Take up liquid spill into inert absorbent material, e.g.: sand/earth  
- Scoop absorbed substance into closing containers  
- Clean contaminated surfaces with an excess of water  
- Wash clothing and equipment after handling

## 7. Handling and storage

- 7.1 Handling:**  
Accidental release of the contents:  
- Observe normal hygiene standards
- 7.2 Storage:**  
- Keep container tightly closed  
- Store in a cool area  
- Keep container in a well-ventilated place  
- Meet the legal requirements  
- Keep away from: heat sources, oxidizing agents
- |                                |                     |      |
|--------------------------------|---------------------|------|
| <b>Storage temperature</b>     | : N.D.              | °C   |
| <b>Quantity limits</b>         | : N.D.              | kg   |
| <b>Storage life</b>            | : N.D.              | days |
| <b>Materials for packaging</b> | :                   |      |
| - suitable                     | : no data available |      |
| - to avoid                     | : no data available |      |
- 7.3 Specific use(s):**  
- See information supplied by the manufacturer for the identified use(s)

# INK CARTRIDGE (LC) (H086040-00-01)

## 8. Exposure controls/Personal protection

### 8.1 Exposure limit values:

Exposure is limited because of the form in which the product is placed on the market

#### 8.1.1 Occupational exposure:

glycerol

TLV-TWA	: 10 mist	mg/m <sup>3</sup>		ppm
TLV-STEL	: -	mg/m <sup>3</sup>		ppm
TLV-Ceiling	:	mg/m <sup>3</sup>		ppm
WEL-I TEL	: 10 mist	mg/m <sup>3</sup>	-	ppm
WEL-STEL	: -	mg/m <sup>3</sup>	-	ppm
TRGS 900	:	mg/m <sup>3</sup>		ppm
MAK	: 50 E	mg/m <sup>3</sup>		ppm
GWB NL-TGG 8 h	: 10 nevel	mg/m <sup>3</sup>		
GWK NL-TGG 15 min.	:	mg/m <sup>3</sup>		
Ceiling	:	mg/m <sup>3</sup>		
VME-8 h	: 10 aéros.	mg/m <sup>3</sup>	-	ppm
VLE-15 min.	: -	mg/m <sup>3</sup>	-	ppm
GWBB-8 h	: 10 nevel	mg/m <sup>3</sup>	-	ppm
GWK-15 min.	: -	mg/m <sup>3</sup>	-	ppm
Momentary value	:	mg/m <sup>3</sup>		ppm
EC	:	mg/m <sup>3</sup>		ppm
EC-STEL	:	mg/m <sup>3</sup>		ppm

#### 8.1.2 Sampling methods:

- Glycerin Mist (Particulates) NIOSH 600
- Glycerin Mist (Respirable and total dust) OSHA CSI

### 8.2 Exposure controls:

#### 8.2.1 Occupational exposure controls:

- Accidental release of the contents:
- Work under local exhaust/ventilation

#### Personal protective equipment:

##### a) Respiratory protection:

- Not required for normal conditions of use
- Accidental release of the contents:
- Wear gas mask with filter type A if conc. in air > exposure limit

##### b) Hand protection:

- Accidental release of the contents: Gloves
- Suitable materials: PVA  
PVC

- Breakthrough time: N.D.

##### c) Eye protection:

- Not required for normal conditions of use

##### d) Skin protection:

- Accidental release of the contents: Protective clothing
- Suitable materials: PVA  
PVC

#### 8.2.2 Environmental exposure controls: see headings 6.2, 6.3 and 13

# INK CARTRIDGE (LC) (H086040-00-01)

## 9. Physical and chemical properties

### 9.1 General information:

Appearance (at 20°C) : Ink cartridge  
Odour : The contents: odourless  
Colour : The contents: green-blue

### 9.2 Important health, safety and environmental information:

pH value (at %) : 8.6 - 10.0  
Boiling point/boiling range : > 100 °C  
Flash point/flammability : > 100 °C  
Explosion limits (explosive properties) : N.D. vol%  
Oxidising properties :  
Vapour pressure (at 20°C) : < 23 hPa  
Vapour pressure (at 50°C) : N.D. hPa  
Relative density (at 20°C) : 1.07  
Water solubility : The contents are: miscible with water  
Soluble in : N.D.  
Relative vapour density : N.D.  
Viscosity (at °C) : N.D. Pa.s  
Partition coefficient n-octanol/water : N.D.  
Evaporation rate  
ratio to butyl acetate : N.D.  
ratio to ether : N.D.

### 9.3 Other information:

Melting point/melting range : < 0 °C  
Auto-ignition temperature : > 369 °C  
Saturation concentration : N.D. g/m<sup>3</sup>  
Specific conductivity : N.D. pS/m

## 10. Stability and reactivity

### 10.1 Conditions to avoid:

- Stable under normal conditions

### 10.2 Materials to avoid:

- Keep away from: heat sources, oxidizing agents

### 10.3 Hazardous decomposition products:

- Upon combustion CO and CO<sub>2</sub> are formed  
- Reacts with (strong) oxidizers

## 11. Toxicological information

### 11.1 Acute toxicity:

glycerol  
LD50 oral rat : 12600 mg/kg  
LD50 dermal rabbit : > 10000 mg/kg

### 11.2 Chronic toxicity:

glycerol  
EC carc. cat. : not listed  
EC muta. cat. : not listed  
EC repr. cat. : not listed  
Carcinogenicity (TLV) : not listed  
Carcinogenicity (MAC) : not listed  
Carcinogenicity (VME) : not listed  
Carcinogenicity (GWBB) : not listed  
Carcinogenicity (MAK) : not listed  
Mutagenicity (MAK) : not listed  
Teratogenicity (MAK) : C  
IARC classification : not listed

## INK CARTRIDGE (LC) (H086040-00-01)

### 11.3 Routes of exposure:

Exposure is limited because of the form in which the product is placed on the market

### 11.4 Acute effects/symptoms:

- Unlikely to cause harmful effects

### 11.5 Chronic effects:

- Contains a substance of group C (MAK-Schwangerschaftsgruppe) (glycerol)
- Not listed in carcinogenicity class (IARC,EC,TLV,MAK)
- Not listed in mutagenicity class (EC,MAK)

## 12. Ecological information

### 12.1 Ecotoxicity:

#### glycerol:

- LC50 (96 h) : 54000 mg/l (SALMO GAIRDNERI/ ONCORHYNCHUS MYKISS)
- EC50 (24 h) : >10000 mg/l (DAPHNIA MAGNA)

- Effect on waste water purification : no data available

### 12.2 Mobility:

- Volatile organic compounds (VOC): N.D.%
- Miscible with water

For other physicochemical properties see heading 9

### 12.3 Persistence and degradability:

- biodegradation BOD<sub>5</sub> : N.D. % ThOD
- water : N.D.
- soil : T ½: N.D. days

### 12.4 Bioaccumulative potential:

- log P<sub>ow</sub> : N.D.
- BCF : N.D.

### 12.5 Results of PBT assessment:

- Not applicable, based on available data.

### 12.6 Other adverse effects:

- WGK : N.A.
- Effect on the ozone layer : Not dangerous for the ozone layer (1999/45/EC)
- Greenhouse effect : no data available

## 13. Disposal considerations

### 13.1 Provisions relating to waste:

- Waste material code (75/442/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 08 03 13 (waste ink other than those mentioned in 08 03 12)
- LWCA (the Netherlands): KGA category 03

### 13.2 Disposal methods:

- Special waste (VLAREA, M.B. 30/4/2004)
- Refer to manufacturer/supplier for information on recovery/recycling
- Do not landfill
- Contains a component for which a prohibition exists against discharge into surface water

### 13.3 Packaging/Container:

- No available data

# INK CARTRIDGE (LC) (H086040-00-01)

## 14. Transport information

### 14.1 Classification of the substance in compliance with UN Recommendations

UN number :  
CLASS : -  
SUB RISKS :  
PACKING GROUP :

### 14.2 ADR (transport by road)

CLASS : Not subject  
PACKING GROUP :  
CLASSIFICATION CODE :  
DANGER LABEL TANKS :  
DANGER LABEL PACKAGES :  
PROPER SHIPPING NAME :

### 14.3 RID (transport by rail)

CLASS : Not subject  
PACKING GROUP :  
CLASSIFICATION CODE :  
DANGER LABEL TANKS :  
DANGER LABEL PACKAGES :  
PROPER SHIPPING NAME :

### 14.4 ADNR (transport by inland waterways)

CLASS : Not subject  
PACKING GROUP :  
CLASSIFICATION CODE :  
DANGER LABEL TANKS :  
DANGER LABEL PACKAGES :

### 14.5 IMDG (maritime transport)

CLASS : Not subject  
SUB RISKS :  
PACKING GROUP :  
MFAG :  
EMS :  
MARINE POLLUTANT :

### 14.6 ICAO (air transport)

CLASS : Not subject  
SUB RISKS :  
PACKING GROUP :  
PACKING INSTRUCTIONS PASSENGER AIRCRAFT :  
PACKING INSTRUCTIONS CARGO AIRCRAFT :

## 15. Regulatory information

### 15.1 EU legislation:

Not classified as dangerous in compliance with Directive 67/548/EEC and/or Directive 1999/45/EC

### 15.2 National provisions:

**The Netherlands:**  
Waterbezwaarlijkheid: N.B.

**Germany:**  
WGK : N.A.

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## 16. Other information

The information provided on this SDS is 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 as 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 material or in any process, unless specified in the text.

**N.A.** = NOT APPLICABLE  
**N.D.** = NOT DETERMINED  
**(\*)** = INTERNAL CLASSIFICATION (NFPA)

**PBT-substances** = persistent, bioaccumulative and toxic substances

### Exposure limits:

**TLV** : Threshold Limit Value - ACGIH USA  
**WEL** : Workplace Exposure Limits - United Kingdom  
**TRGS 900** : Technische Regel für Gefahrstoffe 900 (Arbeitsplatzgrenzwerte) - Germany  
**MAK** : Maximale Arbeitsplatzkonzentrationen - Germany  
**MAC** : Maximale aanvaarde concentratie - The Netherlands  
**VME** : Valeurs limites de Moyenne d'Exposition - France  
**VLE** : Valeurs limites d'Exposition à court terme - France  
**GWBB** : Grenswaarde beroepsmatige blootstelling - Belgium  
**GWK** : Grenswaarde kortstondige blootstelling - Belgium  
**EC** : Indicative occupational exposure limit values - directive 2000/39/EC

**I** : Inhalable fraction = **T**: Total dust = **E**: Einatembarer Aerosolanteil  
**R** : Respirable fraction = **A**: Alveolengängiger Aerosolanteil/Alveolar dust  
**C** : Ceiling limit

<b>a:</b>	aerosol	<b>r:</b>	rook/Rauch	(fume)
<b>d:</b>	damp (vapour)	<b>st:</b>	stof/Staub	(dust)
<b>du:</b>	dust	<b>ve:</b>	vezel	(fibre)
<b>fa:</b>	Faser (fibre)	<b>va:</b>	vapour	
<b>fi:</b>	fibre	<b>om:</b>	oil mist	
<b>fu:</b>	fume	<b>on:</b>	olienevel/Ölnebel	(oil mist)
<b>p:</b>	poussière (dust)	<b>part:</b>	particles	

### Chronic toxicity:

**K** : List of the carcinogenic substances and processes - The Netherlands