

# **Material Safety Data Sheet**

# Ink Cartridge (Y) (MSDS:H086078-00-03-NA-E)

# Section 1. Chemical product and company identification

Common name	: Ink Cartridge(Y)
Code	: H086078-00
Material uses	: Ink
Supr/ Manufacturer	: NK Works Co., Ltd, 579-1, Umehara, Wakayama-shi, 640-8550, Japan Emrgency: +81 73 456 3969 Phone: +81 73 456 3969 Fax: +81 73 456 3991
In case of emergency	: CHEMTREC,U.S : (800)424-9300 International : (703)527-3887
Section 2. Hazard	ds identification
Physical state	: Liquid.
Emergency overview	: WARNING!
	CAUSES EYE IRRITATION. MAY CAUSE SKIN IRRITATION.
	This MSDS shows the hazards linked with the content of the cartridge. The cartridge itself, does not present any hazard when properly used. Avoid contact with skin and clothing. Wash thoroughly after handling.
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effe	octs
Eyes	: Severely irritating to eyes. Risk of serious damage to eyes.
Skin	: Slightly irritating to the skin.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Potential chronic health effects	: CARCINOGENIC EFFECTS: Classified 3 (Not classifiable for humans.) by IARC [Triethanolamine].
	MUTAGENIC EFFECTS: Not available.
	TERATOGENIC EFFECTS: Not available.
Medical conditions aggravated by over-	: Repeated or prolonged exposure is not known to aggravate any medical condition.

exposure

See toxicological Information (section 11)

# Section 3. Composition, Information on Ingredients

						CAS number	% by weight
United States							
Glycerin, (Glycerol)						56-81-5	5 - 10
2-[2-(2-butoxyethoxy)ethoxy]ethanol						143-22-6	5 - 10
Triethylene glycol						112-27-6	1 - 5
Canada							
Glycerin, (Glycerol)						56-81-5	5 - 10
2-[2-(2-butoxyethoxy)ethoxy]ethanol						143-22-6	5 - 10
Triethylene glycol						112-27-6	1 - 5
Mexico				Clas	sific	ation	
	UN number	IDLH	н	F	R	Special	
Glycerin, (Glycerol)	Not regulated.	-	0	1	0	56-81-5	5 - 10
2-[2-(2-butoxyethoxy)ethoxy]ethanol	Not regulated.	-	1	1	0	143-22-6	5 - 10
Triethylene glycol	Not regulated	-	1	1	0	112-27-6	1 - 5

#### Ink Cartridge(Y) (H086078-00-03-NA-E)

This material is classified hazardous under OSHA regulations in the United States, the WHMIS Controlled Product Regulation in Canada and the NOM-018-STPS-2000 in Mexico. See Chapters 8, 11 and 14 for details.

#### Section 4. First aid measures

Eye contact	In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if irritation occurs.
Skin contact	: Wash with soap and water. Get medical attention if irritation develops.
Inhalation	<ul> <li>Move exposed person to fresh air. Keep person warm and at rest. Get medical attention if symptoms occur.</li> </ul>
Ingestion	: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms occur.
Notes to physician	: No specific antidote. Medical staff must contact Poison Control Center.

# Section 5. Fire fighting measures

Flammability of the product : Non-flammable.		
	Use an extinguishing agent suitable for surrounding fires.	
Special protective	: Fire fighters should wear appropriate protective equipment and self-contained breathing	
equipment for fire- fighters	apparatus (SCBA) with a full face piece operated in positive pressure mode.	

### Section 6. Accidental release measures

Personal precautions	: No special precaution is required. Use suitable protective equipment (section 8).		
Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains			
	and sewers.		
Methods for cleaning up	: For small spills coming from a broken cartridge, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. Place unbroken cartridge in an appropriate container for disposal.		

### Section 7. Handling and storage

Handling	: Wash thoroughly after handling.
Storage	: Keep container tightly closed.

### Section 8. Exposure Controls, Personal Protection

Engineering controls Personal protection	: No special ventilation requirements.
Eyes	: Not applicable.
Respiratory	: Not applicable.
Hands	: Disposable vinyl gloves.
Skin/Body	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Personal protection in case	Not likely to occur,but if more then 1L of ink spills:
of a large spill	Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full
<b>Date of issue</b> : 12/14/2012	2 Page: 2/6

Product name United States Glycerin, (Glycerol)

### protective gear.

Exposure limits

ACGIH TLV (United States, 1/2006). TWA: 10 mg/m <sup>3</sup>8 hour(s). Form: Mist OSHA PEL (United States, 11/2006). TWA: 5 mg/m <sup>3</sup>8 hour(s). Form: Respirable fraction

**Canada** Glycerin, (Glycerol)

#### ACGIH TLV (United States, 1/2006). TWA: 10 mg/m <sup>3</sup>8 hour(s). Form: Mist

Mexico Glycerin, (Glycerol)

NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 10 mg/m<sup>3</sup>8 hour(s). Form: Mist

Consult local authorities for acceptable exposure limits.

### **Section 9. Physical and chemical properties**

Physical state	: Liquid.
Color	: Yellow
Odor	: Odorless.
PH	: 9.1
<b>Boiling/condensation point</b>	: 100°C (212°F)
Melting/freezing point	: 0°C (32°F)
Specific gravity	: 1.062
Vapor density	: >1[Air = 1]
Viscosity	: Dynamic:<500mPa·s(<500cP)
Solubility	: Miscible in water.

### Section 10. Stability and reactivity

Stability and reactivity: The product is stable.Incompatibility with various: Reactive or incompatible with the following materials: oxidizing materials.substances: Will not occur.

### Section 11. Toxicological information

Acute Effects	
Eyes	: Severely irritating to eyes. Risk of serious damage to eyes.
Skin	: Slightly irritating to the skin.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Potential chronic health	: CARCINOGENIC EFFECTS: Classified 3 (Not classifiable for humans.) by IARC.
effects	[Triethanolamine]
	MUTAGENC EFFECTS: Not available.
	TERATOGENIC EFFECTS: Not available.

# Section 12. Ecological information

Ecotoxicity data Ingredient name Glycerin, (Glycerol)	<b>Species</b> Oncorhynchus mykiss(LC50)	Period 96 hour(s)	Result 54000mg/l
Products of degradation	: Decomposition products may inc And water.	lude the following materia	Ils: carbon oxides (CO, CO2)

### Section 13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Avoid<br/>dispersal of spilled material and runoff and contact with soil, waterways, drains and<br/>sewers. Disposal of this product, solutions and any by-products should at all times<br/>comply with the requirements of environmental protection and waste disposal legislation<br/>and any regional local authority requirements.

Consult your local or regional authorities.

### Section 14. Transport information

**Classification :** 

Mexico / TDG/ DOT/ IMDG/ IATA: Not regulated.

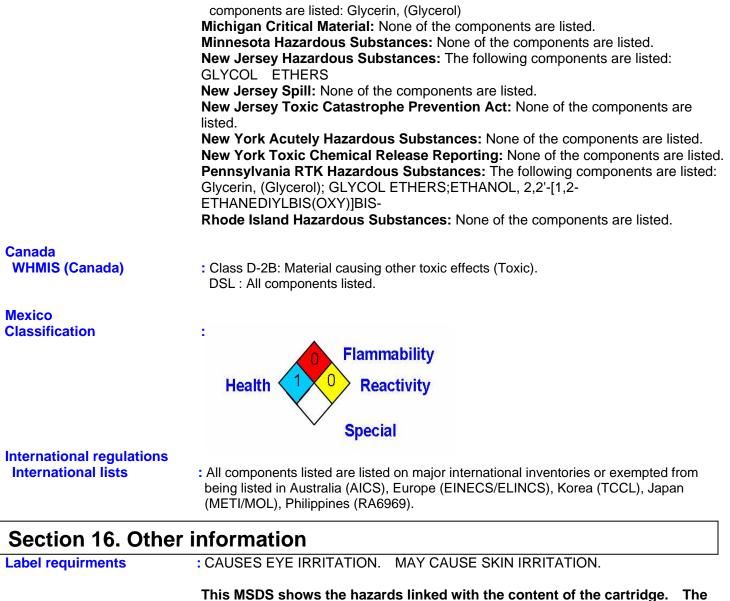
Label Not applicable.

Additional information Not applicable.

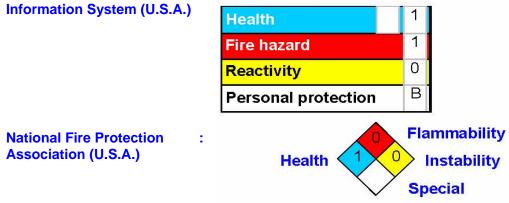
# Section 15. Regulatory information

United States	
HCS Classification	: Irritating material
U.S. Federal regulations	: TSCA : All components listed.
	<ul> <li>SARA 302/304/311/312 extremely hazardous substances: No products were found.</li> <li>SARA 302/304 emergency planning and notification: No products were found.</li> <li>SARA 302/304/311/312 hazardous chemicals: Glycerin, (Glycerol); Triethylene glycol</li> <li>SARA 311/312 MSDS distribution - chemical inventory - hazard identification:</li> <li>Glycerin, (Glycerol): Immediate (acute) health hazard, Delayed (chronic) health hazard;</li> <li>Triethyene glcol:Immediate (acute) health hazard, Delayed (chronic) health hazard</li> <li>Clean Water Act (CWA) 307: No products were found.</li> <li>Clean Air Act (CAA) 112 accidental release prevention: No products were found.</li> <li>Clean Air Act (CAA) 112 regulated flammable substances: No products were found.</li> <li>Clean air act (CAA) 112 regulated toxic substances: No products were found.</li> </ul>
State regulations	<ul> <li>Connecticut Carcinogen Reporting: None of the components are listed.</li> <li>Connecticut Hazardous Material Survey: None of the components are listed.</li> <li>Florida substances: None of the components are listed.</li> <li>Illinois Chemical Safety Act: None of the components are listed.</li> <li>Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.</li> <li>Louisiana Reporting: None of the components are listed.</li> <li>Louisiana Spill: None of the components are listed.</li> <li>Massachusetts Spill: None of the components are listed.</li> </ul>

#### Ink Cartridge(Y) (H086078-00-03-NA-E)



cartridge itself, does not present any hazard when properly used.



#### References

Hazardous Material

: ANSI Z400.1, MSDS Standard, 2004. -Manufacturer's Material Safety Data Sheet. -29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous

#### Ink Cartridge(Y) (H086078-00-03-NA-E)

Materials, UN#, Proper Shipping Names, PG. -Canada Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.

Date of issue	: 12/14/2012
Version	: 4

#### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named

supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of theinformation contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present

unknown hazards and should be used with caution. Although certain hazards are described herein, we cannotguarantee that these are the only hazards that exist.