

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name : **Black ink for Ink Jet Printer (No. 404)**

Company Name : GENERAL TECHNOLOGY COMPANY LTD.

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Research and Development Department

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2. Composition/Information on Ingredients

Substance or Preparation

Preparation

Chemical Nature

Ingredients	Contents (wt%)	CAS No.	EU classification
[Ink]			
Carbon Black	1-5	1333-86-4	not classified
1,3-Dimethyl-2-imidazolidinone	45-55	80-73-9	Xn;R21/22 Xi;R36/R38
Organic Compound A	<5	-	F;R11
Organic Compound B2	0.5-2.5	-	not classified
Water	>40	7732-18-5	not classified

The substances that are contained over 0.1% in this ink are not carcinogens.

EU classification of ink as a whole is not classified.

3 . Hazards Identification (Most Important Hazard)

Adverse Human Health Effects

[Ink]

Inhalation - Vapors and / or mists which may be formed at elevated temperatures may be irritating to eyes.

Skin - No irritation.

Ingestion - May be harmful if swallowed.

Eyes - Contact with eye result in mild irritation.

[Ingredients]

Carbon Black

Inhalation - No adverse affects expected.

Skin – No adverse affects expected.

Ingestion – No adverse affects expected.

Eyes – Not identified as an irritant in rat studies.

1,3-Dimethyl-2-imidazolidinone

Contact with eye and skin may result in irritation.

May be harmful if absorbed through the skin.

Organic compound A

Consider not hazard compound for industrial use.

But contact repeatedly with eye and skin may result in irritation.

Inhalation may result cough, headache, fatigue and drowsiness.

Organic compound B

Contact with eye may result in mild irritation.

4. First-Aid Measures

Inhalation

Remove subject to ventilated fresh air. Consult physician if necessary.

Skin Contact

Wash thoroughly with soap and water.

Eye Contact

Try to remove with eye drops or flush with water. If unsuccessful, get medical attention.

Ingestion

Wash mouth with water and get medical advice.

5. Fire-Fighting Measures

Flash point for the ink and method

Method: Cleveland (Open)

Upper and lower flammable (explosive) limits in air

Not yet determined.

Hazardous combustion products

Carbon oxides, nitrogen oxides in fire

Extinguishing Media

Water, CO₂, Dry Chemical and others

Specific Method

No special fire protecting method is required.

6. Accidental Release Measures

Personal Precautions

Waterless hand cleaners followed by washing with soap and water readily remove product from skin.

Clean-Up Methods

Use non-sparking tools and equipment. Absorb or cover with dry earth, sand or other non-combustible material and transfer to sealable containers.

Large spills: Dike far ahead of liquid spill for later disposal.

Environment Precautions

Especially nothing

7. Handling and Storage

All employees who handle this ink should be trained to handle safely.

Handling (technical measures, precautions, safe handling material)

Prohibition of dropping and throwing

Storage (technical measures storage conditions, packaging material)

Keep out of reach of children and do not drink ink. Do not store ink in high or freezing temperature.

Keep ink out of direct sunlight. Do not store ink with acids, oxidizing agents or explosives.

Store with container tightly closed. Store containers in a cool, dry location, away from direct sunlight or freezing temperature.

8. Exposure Controls / Personal Protection

Respiratory Protections

Use with adequate ventilation to avoid breathing vapors or mists minimal exposure vapors or mists generated by this ink.

None required under normal conditions of use.

If respiratory protection is needed during emergency response situations, use only protection authorized in 29 CFR 1910,134, or applicable States regulations.

Hand Protection

Wear light-weight plastic or rubber gloves for routine industrial use.

Eye Protection

Wear appropriate protective eyeglasses or safety goggles.

Skin and Body Protection

Remove contaminated clothing immediately.

None required under normal conditions of use. If protection is needed, chemical protective clothing made from natural rubber is generally acceptable.

9. Physical and Chemical Properties.

Physical State

Form: Solvent type ink

Color: Black

Odor: No strong odor is allowed.

Information

pH	: 8.5-10.0	Measuring Temperature. (°C) : 25 °C
Boiling Point (°C)	: 99.6 °C (JIS-K2233)	
Flash Point (°C)	: Flash Point is not detected.(JIS-K2265)	This ink will not burn.
Auto Ignition Temperature (°C)	: 410 °C (ASTM-659)	
Melting Point (°C)	: 0.6 °C (JIS-K2249)	
Explosion Properties	: This product is considered non explosive material under normal use condition.	
Vapor Pressure (pa)	: Not yet determined.	Measuring Temperature. (°C)
Vapor Density (AIR=1)	: Not yet determined.	
Density (g / cm 3)	: 1.06 (JIS-K2249)	Measuring Temperature. 15/4(°C)

Solubility

Water Solubility (g / L)	: soluble	Water Solubility Measuring Temp(°C): -
Other Solvent name	: -	
Other Solvent Solubility (g / L): -		
Other Solvent Solubility		Measuring Temperature (°C) : -
Octanol /Water Partition Coefficient	: Not yet determined.	

10. Stability and Reactivity

Stability

Stable

Conditions to Avoid

Extreme high or low temperatures

Materials to Avoid

Acid and strong oxidizer can cause a reaction.

Hazardous Decomposition Products

Carbon oxides, nitrogen oxides in fire.

1,3-Dimethyl-2-imidazolidinone

Combustible liquid. Material may burn, producing irritating and poisonous gases.

Organic compound A

Flammable, Vapor /air mixtures are explosive.

Hazardous polymerization conditions and released products

Will not occur.

11. Toxicological Information

Acute Toxicity

Acute Oral Toxicity

: rat LD50 >2000mg/Kg

Acute Dermal Toxicity

: rat LD50 >2000mg/Kg

Acute Inhalation Toxicity

: No data

Sensitization

Acute Skin Irritation : Non-irritating

Acute Eye Irritation : Slight irritating

Acute Allergenic Effects : Non sensitization

Mean daily scores for skin sensitization

Carcinogenicity

Ames test : Negative

The carbon black contained in this product corresponds to IARC(2B).

12. Ecological Information

Acute Toxicity for fish

LC50 > 1000mg/L (96Hour) Orange killifish

13. Disposal Consideration

Dispose of waste material in accordance with local, state and federal pollution regulations.

14. Transport Information

This ink is subject to the following transportation regulations as indicated:

IATA: Not regulated

DOT: Not regulated

ADR: Not regulated

Singapore land transport: Not regulated

15. Regulation Information

1,3-Dimethyl-2-imidazolidinone is subject to SNUR under 40C.F.R. section 721.9892 and to 12(b) export notification reporting requirements.

SNUN S04-03 for 1,3-Dimethyl-2-imidazolidinone had completed on October 14, 2004.

EU Notification: All ingredients are listed on EINECS.

EU classification of ink as a whole is not classified.

The chemicals that are listed in California Proposition 65 are not contained in this ink.

Metal present in ink at concentration > 0.1ppm

【Na⁺】=165ppm

16. Other Information

None

The information herein given in good faith and to the best knowledge but no warranty, express or implied, is made.