

Substance Key: 000BI15B0002

Revision Date: 10/09/2008

## Section 1 – Product and Company Identification

**Product Name:** HI-Y209  
**Product Use:** Ink-Jet Printing Ink

**Company Identification:**

**MANUFACTURER**

Ninestar Technology Co., Ltd.  
No. 63, Mingzhubei Road, Xiangzhou District  
Zhuhai, Guangdong, P. R.  
China 519075

**Overseas sales department:**

**Tel:** +86 756 8539388

**Fax:** +86 756 8539389

**Emergency call:** +86 800- 830- 7918 (24 hours hotline)

## Section 2 - Composition, Information on Ingredients

**Components (% by weight)**

COMPONENTS	PERCENTAGE/BOTTLE	CAS#
Diethylene glycol	0%-9%	111-46-6
Isopropanol	0%-5%	67-63-0
Glycerol	0%-10%	56-81-5
Diethylene glycol monobutyl ether	0%-9%	112-34-5
urea	0%-10%	57-13-6
Dipropylene glycol monobutyl ether	0%-9%	143-22-6
2-Pyrrolidone	0%-15%	616-45-5
Polyethylene glycol 400	0%-10%	25322-68-3
Triethylene glycol monobutyl ether	0%-9%	143-22-6
Water	60%-85%	7732-18-5

Dye component                      Cyan                      Magenta Yellow

Chemical family                      Copper phthalocyanine\* Azo\*                      Azo\*

Components (Remarks)

\*The specific identity for each component not identified by a CAS Registry Number is withheld as a trade secret.

**Section 3 – Hazards Identification****Potential Health Effects**

THIS PRODUCT CAN BE USED SAFELY WHEN USED AS DIRECTED AND WHEN APPLICABLE SAFETY PRECAUTIONS ARE FOLLOWED.

**PETENTIAL HEALTH EFFECTS FROM PRODUCT**

Potential routes of overexposure to this product are skin contact, eye contact and inhalation of vapor.

Ingestion is not expected to be a significant route of exposure for this product under normal use conditions.

There is no toxicity data available for this specific formulation. Any potential hazards are presumed to be due to exposure to the components.

**ADDITIONAL HEALTH EFFECTS**

Since this mixture has not been tested as a whole to determine the hazards by all routes of exposure, information is provided for each hazardous component of the mixture to meet requirements of OSHA's Hazard Communication Standard (29 CFR 1910.1200). The effects noted occur from exposure to the pure component unless other noted.

**INFORMATION FOR COMPONENTS****Diethylene glycol**

Eye Contact - May cause eye irritation.

Skin Contact - May cause skin irritation.

Effects of Overexposure - Excessive exposure may cause gastrointestinal disturbances, nausea, headache and vomiting.

**Isopropanol**

Eye Contact - Contact with eyes may result in irritation.

Skin Contact - Contact with the skin may result in irritation.

Inhalation - Inhalation may result in respiratory irritation.

Ingestion - Ingestion may result in gastric disturbances.

Chronic Overexposure Effects - Developmental toxicity was seen in the offspring of rats at doses that were maternally toxic.

**Diethylene glycol monobutyl ether**

Eye Contact - Contact with eyes may result in irritation.

Skin Contact - Contact with the skin may result in irritation.

Inhalation - Inhalation may result in respiratory irritation.

Ingestion - Ingestion may result in gastric disturbances.

Chronic Overexposure Effects - Developmental toxicity was seen in the offspring of rats at doses that were maternally toxic.

**Glycerol**

Eye Contact - May cause eye irritation.

Skin Contact - May cause skin irritation.

Effects of Overexposure - Excessive exposure may cause gastrointestinal disturbances, nausea, headache and vomiting.

**UREA**

Eye Contact -Effects on exposure: Irritation can occur upon contact with eyes.

Skin Contact-Repeated or prolonged contact with skin may cause reddening, irritation and inflammation.

Inhalation-Mild irritation of the respiratory system may occur upon inhalation.

Ingestion Mild irritation of gastrointestinal tract may occur upon ingestion.

**Dipropylene glycol monobutyl ether**

Eye Contact - May cause eye irritation.

Skin Contact - May cause skin irritation.

Effects of Overexposure - Excessive exposure may cause gastrointestinal disturbances, nausea, headache and vomiting.

**2-Pyrrolidone**

Eye Contact - Contact with eyes may result in irritation.

Skin Contact - Contact with the skin may result in irritation.

Inhalation - Inhalation may result in respiratory irritation.

Ingestion - Ingestion may result in gastric disturbances.

**Polyethylene glycol 400**

Eye Contact - May cause eye irritation. Symptoms of exposure may include eye irritation or burning sensation.

Skin Contact - Prolonged or repeated contact may dry skin and cause irritation. Symptoms of exposure may include drying, cracking or inflammation of skin.

Inhalation - May cause respiratory tract irritation. Symptoms of exposure may include nasal discharge, hoarseness, coughing, chest pain and breathing difficulty.

Ingestion - Essentially non-toxic.

**Triethylene glycol monobutyl ether**

Eye Contact - May cause eye irritation.

Skin Contact - May cause skin irritation.

Effects of Overexposure - Excessive exposure may cause gastrointestinal disturbances, nausea, headache and vomiting.

Carcinogenicity Information

None of the components present this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or other as a carcinogen.

## Section 4 - First Aid Measures

### First Aid

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes in case of contact. Call a physician.

**Skin:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Wash clothing before reuse.

**Ingestion:** Ingestion is not an expected route of exposure during normal use of the product. If ingested, consult a physician.

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

## Section 5 - Fire Fighting Measures

### Flammable Properties

Flash Point: >93.3 °C (>200 °F)

Method : Closed Cup

Approximate Flammable Limits in Air, % by Volume

LEL : Not available

UEL: Not available

Autoignition Temperature: Not available

Product is a nonflammable water-based solution.

Hazardous combustion products (gases/vapors) produced in fire can include carbon monoxide, carbon dioxide, nitrogen oxides, and smoke.

### Extinguishing Media

Use media appropriate for surrounding material.

### Fire Fighting Instructions

This product is not flammable. Use normal firefighting procedures for the area

## Section 6 - Accidental Release Measures

### Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

### Initial Containment

Dike spill

**Spill Clean Up**

Soak up with absorbent material.

**Section 7 - Handling and Storage****Handling (Personnel)**

Avoid contact with eyes, skin, or clothing.

**Section 8 - Exposure Controls, Personal Protection****Personal Protective Equipment****EYE/FACE PROTECTION**

Wear safety glasses. Wear coverall chemical splash goggles and face shield when the possibility exists for eye and face contact due to splashing or spraying of the material.

**RESPIRATORS**

Respirators are not needed for normal use.

**PROTECTIVE CLOTHING**

If there is potential for significant dermal contact wear appropriate impervious clothing and gloves.

**Applicable Exposure Limits and Exposure Data****WATER**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : >90 mL/kg (RTECS)

LC50 (rat, inhalation/4 hr.) : No data available

**Diethylene glycol**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : >12565mg/kg(RTECS)

LC50 (rat, inhalation/4 hr.) : No data available

**Isopropanol**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : >5.47g/kg(RTECS)

LC50 (rat, inhalation/4 hr.) : No data available

**Diethylene glycol monobutyl ether**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : None Established

LC50 (rat, inhalation/4 hr.) : No data available

## **Glycerol**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : >5.2 g/kg(RTECS)

LC50 (rat, inhalation/4 hr.) : No data available

## **UREA**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : >14.3g/kg(RTECS)

LC50 (rat, inhalation/4 hr.) : No data available

## **Diprolene glycol monobutyl ether**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : >14.3g/kg(RTECS)

LC50 (rat, inhalation/4 hr.) : No data available

## **2-Pyrrolidone**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : >5000mg/kg(RTECS)

LC50 (rat, inhalation/4 hr.) : No data available

## **Polyethylene glycol 400**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : >384000mg/kg(RTECS)

LC50 (rat, inhalation/4 hr.) : No data available

## **Triethylene glycol monobutyl ether**

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

LD50 (rat, oral) : >14.3g/kg(RTECS)

LC50 (rat, inhalation/4 hr.) : No data available

## Section 9 - Physical and Chemical Properties

### Physical Data

Form : Liquid

Color : HI-Y209

Odor : Slight

Solubility in Water : Miscible

pH : 7~9

Specific Gravity : > 1

### Other Information

Flash Point : >93.3 °C (>200 °F)

Method : Closed Cup

Approximate Flammable Limits in Air, % by Volume

LEL : Not Available

UEL : Not Available

Autoignition Temperature : Not Available

## Section 10 - Stability and Reactivity

### Chemical Stability:

Stable under normal temperatures and pressures.

### Incompatibilities with Other Materials:

None reasonably foreseeable.

### Decomposition:

Decomposition does not occur during normal use.

### Polymerization:

Polymerization will not occur.

## Section 11 - Toxicological Information

### Animal Data

No data available for product.

## Section 12 - Ecological Information

### Ecotoxicity:

No data available for product.

**Physical:**

No information available.

**Other:**

No information available.

## Section 13 - Disposal Considerations

**Waste Disposal**

DO NOT DISCARD INTO ANY SEWERS, INTO ANY BODY OF WATER, OR ON THE GROUND.

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local laws and regulations.

## Section 14 - Transport Information

(Not meant to be all inclusive)

DOT (Domestic Surface) : Not regulated

ICAO/IATA (Air) : Not regulated

IMO/IMDG (Ocean) : Not regulated

## Section 15 - Regulatory Information

**U.S. Regulations**

Federal Regulations

TSCA Inventory Status –

All components of this product are listed, or exempt from listing, on the TSCA 8(b) chemical inventory.

TSCA Section 12(b) Export Notification –

This product can contain: None

**European Union Regulations**

EU Inventory Status –

All components of this product are listed, or are exempt from listing, on the EINECS chemical inventory.

Transport Information –

This product is not classified as dangerous within the meaning of transport regulations.

Labeling –

This product does not need to be labeled in accordance with EC-Directive 1999/45/EC.

## Section 16 - Additional Information

**HMIS® Rating**

Health : 1



Flammability : 0

Reactivity : 0

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.

**MSDS Contact Information:**

**MANUFACTURER**

Ninestar Technology Co., Ltd.

No. 63, Mingzhubei Road, Xiangzhou District

Zhuhai, Guangdong, P. R.

China 519075

**Overseas sales department:**

**Tel:** +86 756 8539388

**Fax:** +86 756 8539389

**Emergency call:** +86 800- 830- 7918 (24 hours hotline)

**Key :**

EU	European Union
HMS <sup>®</sup>	Hazardous Material Information System (National Paint and Coatings Association)
IEL	Indicative Exposure Limit (EU Directive 2000/39/EC)
LEL LFL	or Lower Explosive Limit or Lower Flammable Limit
NTP	National Toxicology Program (U.S.A.)
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration (U.S.A.)
PEL	Permissible Exposure Limit