



MATERIAL SAFETY DATA SHEET

1. Product and company identification

Product name CN021 Series
Recommended use Inkjet printing
Limitations on use Not available.
Issue date 02-Apr-2015
Revision date 02-Sep-2015
Version # 04
Company identification Limited Liability Company HP Inc
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2. Hazards identification

Hazard classification
Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.

Label elements
Symbols None.
Signal word None.

Hazard statement Not available.

Precautionary statement
Prevention Not available.
Response Not available.
Storage Not available.
Disposal Not available.

Other hazards Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk. Potential routes of overexposure to this product are skin and eye contact. Inhalation of vapor and ingestion are not expected to be significant routes of exposure for this product under normal use conditions. Complete toxicity data are not available for this specific formulation. None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

3. Composition/information on ingredients

Substance or mixture	Mixture		
Chemical property		CAS Number	Concentration (%)
Water		7732-18-5	70-80
1,5-pentanediol		111-29-5	<7.5
2-pyrrolidone		616-45-5	<7.5
Carbon black		1333-86-4	<5

Composition comments This ink supply contains an aqueous ink formulation.

Carbon black is present only in a bound form in this preparation.

4. First aid measures

First aid measures for different exposure routes

Inhalation	Move to fresh air. If symptoms persist, get medical attention.
Ingestion	If ingestion of a large amount does occur, seek medical attention.
Skin contact	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
Eye contact	Do not rub eyes. Immediately flush with large amounts of clean, warm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists get medical attention.

Most important symptoms and effects Not available.

Notes to physician Not available.

5. Fire-fighting measures

Flash point > 200.0 °F (> 93.3 °C) Pensky-Martens Closed Cup

General fire hazards Not available.

Suitable extinguishing media CO₂, water, dry chemical, or foam

Unsuitable extinguishing media None known.

Specific hazards during fire fighting None.

Special fire fighting procedures None.

Personal protective equipment for fire-fighting None.

Specific methods None established.

6. Accidental release measures

Personal precautions Wear appropriate personal protective equipment.

Environmental precautions Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Clean-up methods and materials and containment measures Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

7. Handling and storage

Handling

Safe handling advice Avoid contact with skin, eyes and clothing.

Storage

Technical measures Keep out of the reach of children.
Keep away from excessive heat or cold.

Incompatible materials Not available.

8. Exposure controls/personal protection

Occupational exposure limits

Russian Federation. Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.

Components	Type	Value	Form
2-pyrrolidone (CAS 616-45-5)	Ceiling	10 mg/m ³	Aerosol.

Personal protective equipment

General Use personal protective equipment to minimize exposure to skin and eye.

Engineering measures Use in a well ventilated area.

Personal protective equipment

Respiratory protection Not available.

Hand protection Not available.

Eye protection Not available.

Skin and body protection Not available.

9. Physical and chemical properties

Appearance

Physical state	Not available.
Color	Black.
Odor	Not available.
Odor threshold	Not available.
pH	7 - 8
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not determined
Flash point	> 200.0 °F (> 93.3 °C) Pensky-Martens Closed Cup
Heat of combustion	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not determined
Flammability limit - upper (%)	Not available.
Vapor pressure	Not determined
Viscosity	>= 2 cp
Solubility	Soluble in water
Partition coefficient (n-octanol/water)	Not available.
Other data	
Evaporation rate	Not determined
Oxidizing properties	Not determined
Relative density	1 - 1.2 g/cm ³
Specific gravity	1 - 1.2
VOC (Weight %)	< 146 g/L

10. Stability and reactivity

Stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Will not occur.
Conditions to avoid	None.
Incompatible materials	Incompatible with strong bases and oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

11. Toxicological information

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory sensitization	Based on available data, the classification criteria are not met.
Skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.

Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B) and by the State of California under Proposition 65. In their evaluations of carbon black, both organizations indicate that exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint. Carbon black is present only in a bound form in this preparation.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4)

2B Possibly carcinogenic to humans.

Toxic to reproduction	Based on available data, the classification criteria are not met.
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Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Other information	Complete toxicity data are not available for this specific formulation Refer to Section 2 for potential health effects and Section 4 for first aid measures.

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
Carbon black (CAS 1333-86-4)		
Acute		
<i>Oral</i>		
LD50	Rat	> 8000 mg/kg

12. Ecological information

Aquatic toxicity Not expected to be harmful to aquatic organisms.

Persistence and degradability Not available.

Bioaccumulation

Bioaccumulative potential

Octanol/water partition coefficient log Kow

2-pyrrolidone -0.85

Mobility in soil Not available.

Other hazardous effects Not available.

Ecotoxicological data

Product	Species	Test Results
CN021 Series (CAS Mixture)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 750 mg/l, 96 hours
Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia pulex</i>) 13.21 mg/l, 48 hours

13. Disposal considerations

Local disposal regulations Do not allow this material to drain into sewers/water supplies.
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

HP's Planet Partners (trademark) supplies recycling program enables simple, convenient recycling of HP original inkjet and LaserJet supplies. For more information and to determine if this service is available in your location, please visit <http://www.hp.com/recycle>.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

ADR

Not regulated as dangerous goods.

Further information Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

15. Regulatory information

Applicable regulations All chemical substances in this HP product have been notified or are exempt from notification under chemical substances notification laws in the following countries: US (TSCA), EU (EINECS/ELINCS), Switzerland, Canada (DSL/NDSL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.

2-pyrrolidone (CAS 616-45-5)

Listed.

16. Other information

Disclaimer This Safety Data Sheet document is provided without charge to customers of HP. Data is the most current known to HP at the time of preparation of this document and is believed to be accurate. It should not be construed as guaranteeing specific properties of the products as described or suitability for a particular application. This document was prepared to the requirements of the jurisdiction specified in Section 1 above and may not meet regulatory requirements in other countries.

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Explanation of abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
COC	Cleveland Open Cup
DOT	Department of Transportation
EPCRA	Emergency Planning and Community Right-to-Know Act (aka SARA)
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RCRA	Resource Conservation and Recovery Act
REC	Recommended
REL	Recommended Exposure Limit
SARA	Superfund Amendments and Reauthorization Act of 1986
STEL	Short-Term Exposure Limit
TCLP	Toxicity Characteristics Leaching Procedure
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
VOC	Volatile Organic Compounds