



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation CN045Series

Product use Inkjet printing

Version # 01

Revision date 07-Dec-2011

CAS # Mixture

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2. Hazards Identification

Emergency overview Contact with skin and eyes may result in irritation. Do not breathe Vapor.

Acute health effects

Skin contact Any potential hazards are presumed to be due to exposure to the components.
2-pyrrolidone
Contact with skin may result in irritation.
Co-Solvent
Contact with skin may result in irritation.

Eye contact *2-pyrrolidone*
Contact with eyes may result in irritation.
Co-Solvent
Contact with eyes may result in irritation.

Inhalation Avoid breathing vapors or mists of this product.
2-pyrrolidone
Inhalation may result in respiratory irritation.
Co-Solvent
Inhalation may result in respiratory irritation.

Ingestion *2-pyrrolidone*
Ingestion may result in nausea, vomiting and diarrhea.
Co-Solvent
Swallowing large amounts may cause digestive discomfort.

Potential health effects

Routes of exposure Potential routes of exposure to this product are skin and eye contact, ingestion, and inhalation.

Complete toxicity data are not available for this specific formulation

Chronic health effects None known.

Carcinogenicity 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.
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

Components	CAS #	Percent
2-pyrrolidone	616-45-5	10 - 15
Co-Solvent	Proprietary	7.5 - 10
Carbon black	1333-86-4	2.5 - 5
Water	7732-18-5	> 70

Composition comments

This ink supply contains an aqueous ink formulation. This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

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

4. First Aid Measures

First aid procedures

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.
Skin contact	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
Inhalation	Remove to fresh air. If symptoms persist, get medical attention.
Ingestion	If ingestion of a large amount does occur, seek medical attention.

5. Fire Fighting Measures

Flammable properties	None known.
Extinguishing media	
Suitable extinguishing media	For small (incipient) fires, use media such as foam, sand, dry chemical, or carbon dioxide. For large fires use very large (flooding) quantities of water and/or foam, applied as a mist or spray.
Unsuitable extinguishing media	None known.
Specific methods	None established.
Hazardous combustion products	Refer to section 10.

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.
Methods for containment	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.
Methods for cleaning up	Soak up with inert absorbent material.
Other information	Soak up with inert absorbent material. Slowly vacuum or sweep the material into a bag or other sealed container. Dispose of in compliance with federal, state, and local regulations. See also section 13 Disposal considerations.

7. Handling and Storage

Handling	Avoid contact with skin, eyes and clothing.
Storage	Keep out of the reach of children. Keep away from excessive heat or cold.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components

Components	Type	Value
Carbon black (1333-86-4)	TWA	3.5000 mg/m3

Components**Type****Value**

Components	Type	Value
Carbon black (1333-86-4)	TWA	3.5000 mg/m ³

Exposure guidelines Exposure limits have not been established for this product.

Engineering controls Use in a well ventilated area.

Personal protective equipment

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

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

9. Physical & Chemical Properties

Appearance	Not available.
Color	Black.
Odor	Not available.
Odor threshold	Not available.
Physical state	Liquid
Form	Not available.
pH	7.5
Melting point	Not available.
Freezing point	Not available.
Boiling point	Not available.
Flash point	> 230 °F (> 110 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	Not available.
Relative density	Not available.
Solubility (water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
VOC	< 229 g/L

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
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.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Carcinogenicity 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.

ACGIH Carcinogens

Carbon black (CAS 1333-86-4) A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4) 2B Possibly carcinogenic to humans.

IARC Monographs: Evidence of carcinogenicity in humans

Carbon black (CAS 1333-86-4)

Inadequate data.

Acute toxicity No information available.

Serious eye damage/eye irritation Not available.

Symptoms and target organs

Target Organs (NIOSH)

Carbon black (CAS 1333-86-4)

Eyes

Respiratory system

Further information This ink formulation has not been tested for toxicological effects. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

12. Ecological Information

Ecotoxicity This product has not been tested for ecological effects.

Aquatic toxicity This product has not been tested for ecological effects.

Persistence and degradability Not available.

13. Disposal Considerations

Disposal instructions 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

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

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations US TSCA 12(b): Does not contain listed chemicals.

CERCLA (Superfund) reportable quantity

None

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical No

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

State regulations

US - Pennsylvania RTK - Hazardous Substances: Listed substance

2-pyrrolidone (CAS 616-45-5)

Listed.

Carbon black (CAS 1333-86-4)

Listed.

Regulatory information Contains components not listed in: Canada, Japan, Korea, New Zealand and Ontario
Other information VOC content (less water, less exempt compounds) = < 884 g/L (U.S. requirement, not for emissions)

16. Other Information

Other information This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

HMIS® ratings Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 1
Instability: 0

Disclaimer This Safety Data Sheet document is provided without charge to customers of Hewlett-Packard Company. Data is the most current known to Hewlett-Packard Company 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