MATERIAL SAFETY DATA SHEET

1. Chemical product and company identification

Important information *** This Safety Data Sheet is only authorised for use by HP for HP Original products. Any unauthorised use of this Safety Data Sheet is strictly prohibited and may result in legal action being taken by HP. ***

A. Product name C9428Series

Other means of identification

Product Code cartridge

B. Recommended use and Limitations on use

Recommended use Inkjet printing

C. Supplier information

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Youngdeungpo-gu
Seoul 150-742, Korea

Telephone (02) 2199-0114

HP Inc. health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-760-710-0048

HP Inc. Customer Care Line
(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomer.inquiries@hp.com

2. Hazards identification

A. Hazard category/Classification

Physical hazards	Not classified.	
Health hazards	Reproductive toxicity (fertility, the unborn child)	Category 1B
Environmental hazards	Not classified.	

B. Warning label items including precautionary statement

• Pictogram

• Signal word Danger

• Hazard statement

H360 May damage fertility or the unborn child.

• Precautionary statement

Prevention

P280 Wear protective gloves/protective clothing/eye protection.
P202 Do not handle until all safety precautions have been read and understood.
P201 Obtain special instructions before use.

Response

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

C. Other hazards not included in the hazard category criteria (e.g. dust explosion hazard)	Complete toxicity data are not available for this specific formulation. 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.
Supplemental information	2-pyrrolidone: Specific Concentration Limits, Reproductive toxicity Category 1B, fertility or the unborn child 3%. Mixture classification threshold based on data related to developmental toxicity in animals. No adverse effects on sexual function or damage to fertility have been observed in an animal study. See Section 11.

3. Composition/information on ingredients

Chemical identity	Common and alternative names	CAS number	ID number	Content in percent (%)
Water		7732-18-5	KE-35400	75-85
Trimethylolpropane		77-99-6	KE-13838	<15
2-pyrrolidone		616-45-5	KE-29978	< 7.5
Alcohols, C12-14-secondary, ethoxylated		84133-50-6	KE-00456	< 2.5
Di(tetramethylammonium)(29H,31H-phthalocyanin-N29, N30,N31,N32)disulfonamide disulfonate, cuprate(2-)complex, derivates		12222-04-7	KE-05-0286	< 2.5

Composition comments	This ink supply contains an aqueous ink formulation. 2-pyrrolidone: Specific Concentration Limit 3%. Mixture classification threshold based on data related to developmental toxicity in animals. No adverse effects on sexual function or damage to fertility have been observed in an animal study. See Section 11.

4. First aid measures

A. In case of 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.
B. In case of skin contact	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
C. In case of inhalation	Move to fresh air. If symptoms persist, get medical attention.
D. In case of swallowing	If ingestion of a large amount does occur, seek medical attention.
E. Note to physician	Not available.

5. Fire-fighting measures

A. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	CO_2, water, dry chemical, or foam
Unsuitable extinguishing media	None known.
B. Specific hazards arising from the chemical (example: hazardous combustion products)	Not available.
C. Specific methods of fire-fighting	Not available.
Specific methods	None established.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency measures	Wear appropriate personal protective equipment.
B. Environmental precautions	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
C. Methods and materials for containment and cleaning up	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

A. Precautions for safe handling	Avoid contact with skin, eyes and clothing.

B. Conditions for safe storage (including any incompatibilities)	Keep out of the reach of children. Keep away from excessive heat or cold.

8. Exposure controls/personal protection

A. Exposure limit values, biological limit values, etc

No exposure limits noted for ingredient(s).

Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	Exposure limits have not been established for this product.
B. Appropriate engineering controls	Use in a well ventilated area.

C. Personal protective equipment

• Respiratory protection	Not available.
• Eye protection	Not available.
• Hand protection	Not available.
• Body protection	Use personal protective equipment to minimize exposure to skin and eye.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

A. Appearance

Physical state	Liquid.
Form	Not available.
Color	Light Cyan
B. Odor	Not available.
C. Odor threshold	Not available.
D. pH	7.8 - 8.3
E. Melting point/freezing point	Not available.
F. Boiling point, initial boiling point, and boiling range	Not determined
G. Flash point	200.0 °F (93.3 °C) Pensky-Martens Closed Cup
H. Evaporation rate	Not determined
I. Flammability (solid, gas)	Not available.

J. Upper/lower limit on flammability or explosive limits

Flammability limit - lower (%)	Not determined
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
K. Vapor pressure	Not determined

L. Solubility

Solubility (water)	Soluble in water
M. Vapor density	>= 1 (air = 1.0)
N. Specific gravity	Not available.
O. n-octanol/water partition coefficient	Not available.
P. Auto-ignition temperature	Not available.
Q. Decomposition temperature	Not available.
R. Viscosity	Not available.
S. Molecular weight	Not available.

Other data

Oxidizing properties	Not determined
Percent volatile	7.51 % estimated
VOC	< 90 g/l

10. Stability and reactivity

A. Stability and hazardous reaction potential

Stability	Stable under recommended storage conditions.
Hazardous reaction potential	Will not occur.
B. Conditions to avoid (e.g. static discharge, shock or vibration, etc)	Not available.
C. Incompatible materials	Incompatible with strong bases and oxidizing agents.
D. 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

A. Information on likely routes of exposure

• Respiratory organs	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
• Skin	Contact with skin may result in mild irritation.
• Eyes	Contact with eyes may result in mild irritation.
• Mouth	Health injuries are not known or expected under normal use.

B. Information on health hazards

• Acute toxicity (list all possible routes of exposure)	Based on available data, the classification criteria are not met.

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg

• Corrosivity or irritation to the skin	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. Not classified as an irritant according to, OECD 405.
• Respiratory sensitization	Based on available data, the classification criteria are not met.
• Skin sensitization	Based on available data, the classification criteria are not met.
• Carcinogenic properties /Carcinogenicity	Based on available data, the classification criteria are not met.
• Mutagenic properties /Mutagenicity	Based on available data, the classification criteria are not met.
• Reproductive toxicity	May damage fertility or the unborn child. 2-pyrrolidone: This component showed developmental effects only at high doses that were toxic to pregnant test animals (OECD Testing Guideline 414: Prenatal Developmental Toxicity Study). Uptake by people of small doses is not expected to cause developmental toxicity. This component has not caused adverse effects on sexual function or damage to fertility in an animal study (OECD Testing Guideline 443: Extended One-Generation Reproductive Toxicity Study).
• 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.

12. Ecological information

A. Ecotoxicity Information given is based on data on the components and the ecotoxicology of similar products

Components		Species	Test Results
2-pyrrolidone (CAS 616-45-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours

Components		Species	Test Results
Di(tetramethylammonium)(29H,31H-phthalocyanin-N29,N30,N31,N32)disulfonamide disulfonate, cuprate(2-)complex, derivates (CAS 12222-04-7)			
Aquatic			
Crustacea	EC50	Daphnia	50 - 100 mg/l, 48 Hours
Trimethylolpropane (CAS 77-99-6)			
Aquatic			
Crustacea	EC50	Daphnia	102, 48 Hours
Fish	LC50	Fish	1000, 96 Hours

Aquatic toxicity Static acute toxicity (trout), survival (100 mg/L) = 100%
Static acute toxicity (trout), survival (10 mg/L) = 100% ALC/inhalation/ min/mouse = LC50/96h/rainbow trout => 100 mg/l
EC50/48h/daphnia => 100mg/l, OECD 202
EC50/72h/algae => 100 mg/l , OECD 201

B. Persistence/degradability Not available.

C. Bioaccumulative potential

Octanol/water partition coefficient log Kow

2-pyrrolidone	-0.85

D. Mobility in soil Not available.

E. Other adverse effects Not available.

13. Disposal considerations

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

B. Disposal considerations (including disposal of contaminated containers or packaging) Not available.

14. Transport information

DOT

UN number Not available.
UN proper shipping name Not Regulated
Transport hazard class(es)
Class Not available.
Subsidiary risk -
Packing group Not available.
Environmental hazards
Marine pollutant No
Special precautions for user Not available.

IATA

UN number Not available.
UN proper shipping name Not Regulated
Transport hazard class(es)
Class Not available.
Subsidiary risk -
Packing group Not available.
Environmental hazards No
Special precautions for user Not available.

IMDG

UN number Not available.
UN proper shipping name Not Regulated
Transport hazard class(es)
Class Not available.
Subsidiary risk -
Packing group Not available.
Transport hazard class(es)
Marine pollutant No
EmS Not available.
Special precautions for user Not available.

ADR

UN number	Not available.
UN proper shipping name	Not Regulated
Transport hazard class(es)	
Class	Not available.
Subsidiary risk	-
Hazard No. (ADR)	Not available.
Tunnel restriction code	Not available.
Packing group	Not available.
Environmental hazards	No
Special precautions for user	Not available.
Further information	Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.
	Transport in bulk according to Annex II of MARPOL73/78 and the IBC code: Not applicable.

15. Regulatory information

A. Restrictions under the Industrial Safety and Health Law

Harmful Substances Prohibited from Manufacturing

Not regulated.

Harmful Substances Requiring Permission for Manufacture or Use

Not regulated.

Controlled Hazardous Substances

Not regulated.

Harmful Substances Requiring Special Medical Examination

Not regulated.

Workplace Environmental Monitoring Harmful Materials

Not regulated.

Occupational Exposure Limit

Not regulated.

B. Restrictions under the Chemicals Control Law (Previously Toxic Chemicals Control Law)

Accidental Release Prevention Substances

Not regulated.

Act on the Registration and Evaluation of Chemicals

Banned Toxic Chemicals

Not regulated.

Designated Existing Chemicals Subject to Registration (PEC) (MoE No. 2015-92)

Not listed.

Restricted Chemical Substances

Not regulated.

Toxic Chemicals

Not regulated.

C. Restrictions under the Dangerous Substance Safety Management Act

D. Restrictions under the Wastes Control Act

Halogenated Materials in Waste Organic Solvents

Not regulated.

Hazardous Substances

Not regulated.

E. Restrictions under other foreign or domestic laws

Clean Air Conservation Act

Air Pollutants

Not regulated.

Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides (Rules on PIC, MoE No. 2014-252, Dec. 31, 2014; Standards for Pesticides, RDA No. 2014-26), as amended

Not listed.

Specific Air Pollutants

Not regulated.

Regulatory information	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.

16. Other information

A. Source of information	Not available.
B. Issue date	21-Jun-2013
C. Number of revisions and date of most recent revision	07-Jun-2020 (10 revision)
D. Other	Not available.
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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