



SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture C4846Series
Registration number N/A
Synonyms None.
Issue date 28-Jun-2013
Version number 01

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Inkjet printing

Uses advised against None known.

Company identification

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Poison Information Center 0207771 5307

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification R52/53

Emergency overview Contact with skin and eyes may result in irritation.

Causes skin irritation.

Hazard summary

Physical hazards Not classified for physical hazards.

Health hazards Not classified as a health hazard.

Environmental hazards Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Specific hazards Not available.

Main symptoms Not available.

2.2. Label elements

Label according to Directive 67/548/EEC or 1999/45/EC as amended

Contains: 1,5-pentanediol, 2-pyrrolidone, Alkyldicarboxylic acid, Alkyldiol ethoxylate, Cyan Colorant 1, Cyan Colorant 2, Ethyl alkyldiol, Water

R-phrases(s)
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s)
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Authorization number Not available.

Supplemental label information Not applicable.

2.3. Other hazards 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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Water	<70	7732-18-5 231-791-2	-	-	
Classification:	DSD: - CLP: -				
1,5-pentanediol	<10	111-29-5 203-854-4	-	-	
Classification:	DSD: - CLP: -				
2-pyrrolidone	<10	616-45-5 210-483-1	-	-	
Classification:	DSD: Xi;R36 CLP: Eye Irrit. 2;H319				
Ethyl alkyldiol	<10	Proprietary 201-074-9	-	-	
Classification:	DSD: - CLP: -				
Alkyldicarboxylic acid	<7.5	Proprietary 203-740-4	-	-	
Classification:	DSD: Xi;R36/37-41 CLP: Skin Irrit. 2;H315, Eye Dam. 1;H318, STOT SE 3;H335				
Alkyldiol ethoxylate	<2.5	Proprietary -	-	-	
Classification:	DSD: Xn;R21/22, Xi;R38-41, N;R51/53 CLP: Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Irrit. 2;H315, Eye Dam. 1;H318, Aquatic Chronic 2;H411				
Cyan Colorant 2	<2.5%	Proprietary -	-	-	
Classification:	DSD: Xn;R48/22, N;R51/53 CLP: Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319				
Cyan Colorant 1	<1%	Proprietary 223-339-8	-	-	
Classification:	DSD: - CLP: -				

Composition comments

This ink supply contains an aqueous ink formulation.
This product has been evaluated using criteria specified in the EU Directives 67/548/EEC and 1999/45/EC, as amended.
For the full text of the R phrases mentioned in this Section, see Section 16.

SECTION 4: First aid measures

General information

Not available.

4.1. Description of first aid measures

Inhalation

Move to fresh air. If symptoms persist, get 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.
Ingestion	If ingestion of a large amount does occur, seek medical attention.
4.2. Most important symptoms and effects, both acute and delayed	Not available.
4.3. Indication of any immediate medical attention and special treatment needed	No notes to physicians.

SECTION 5: Firefighting measures

General fire hazards	Not available.
5.1. Extinguishing media	
Suitable extinguishing media	CO2, water, dry chemical, or foam
Unsuitable extinguishing media	None known.
5.2. Special hazards arising from the substance or mixture	Not available.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Not available.
Special fire fighting procedures	Not available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Wear appropriate personal protective equipment.
For emergency responders	Not available.
6.2. Environmental precautions	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
6.3. Methods and material 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.
6.4. Reference to other sections	Not available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Avoid contact with skin, eyes and clothing.
7.2. Conditions for safe storage, including any incompatibilities	Keep out of the reach of children. Keep away from excessive heat or cold.
7.3. Specific end use(s)	Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters	
Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Not available.
Derived no-effect level (DNEL)	Not available.
Predicted no effect concentrations (PNECs)	Not available.

8.2. Exposure controls

Appropriate engineering controls	Use in a well ventilated area. Provide adequate ventilation.
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Individual protection measures, such as personal protective equipment

General information	Use personal protective equipment to minimize exposure to skin and eye.
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Eye/face protection	Not required under intended use.
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Skin protection

- Hand protection	Not available.
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- Other	Protected gloves not required under intended use.
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Respiratory protection	For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.
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Thermal hazards	Not available.
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Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
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Form	Not available.
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Color	Not available.
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Odor	Not available.
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Odor threshold	Not available.
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pH	3.8 - 4.3
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Melting point/freezing point	Not available.
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Initial boiling point and boiling range	Not determined
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Flash point	Not applicable.
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Evaporation rate	Not determined
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Flammability (solid, gas)	Not applicable.
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Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not determined
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Flammability limit - upper (%)	Not available.
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Vapor pressure	Not determined
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Relative density	Not available.
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Solubility(ies)	Soluble in water
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Partition coefficient (n-octanol/water)	Not available.
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Decomposition temperature	Not available.
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Viscosity	≥ 2 cp
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Explosive properties	Not available.
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Oxidizing properties	Not determined
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9.2. Other information	No relevant additional information available.
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SECTION 10: Stability and reactivity

10.1. Reactivity	Not available.
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10.2. Chemical stability	Stable under recommended storage conditions.
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10.3. Possibility of hazardous reactions	Will not occur.
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10.4. Conditions to avoid	Not available.
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10.5. Incompatible materials	Incompatible with strong bases and oxidizing agents.
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10.6. Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
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SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

Ingestion Not available.

Inhalation Not available.

Skin contact Not available.

Eye contact Not available.

Symptoms Not available.

11.1. Information on toxicological effects

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
Alkyldicarboxylic acid (CAS Proprietary)		
Acute		
<i>Oral</i>		
LD50	Rat	2260 mg/kg
Skin corrosion/irritation	Not available.	
Serious eye damage/eye irritation	Not available.	
Respiratory sensitization	Not available.	
Skin sensitization	Not available.	
Germ cell mutagenicity	Not available.	
Carcinogenicity	Not available.	
Reproductive toxicity	Not available.	
Specific target organ toxicity - single exposure	Not available.	
Specific target organ toxicity - repeated exposure	Not available.	
Aspiration hazard	Not available.	
Mixture versus substance information	Not available.	
Other 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.	

SECTION 12: Ecological information

Aquatic toxicity LC50/96h/Fathead minnows =/ \leq 400 mg/L
Static acute toxicity (trout), survival (100 mg/L) = 90%
Static acute toxicity (trout), survival (10 mg/L) = 100%

EC50/72h/algae \geq 100gm/L
EC50/48h/daphnia \geq 66mg/L

12.1. Toxicity

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia pulex) 13.21 mg/l, 48 hours
Alkyldicarboxylic acid (CAS Proprietary)		
Fish	LC50	Fish 101, 96 Hours
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 350 - 400 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha) 239 mg/l, 96 hours

Components		Species	Test Results	
Aquatic	Crustacea	EC50	Daphnia	50 - 100 mg/l, 48 Hours
				102, 48 Hours
	Fish	LC50	Fish	1000, 96 Hours
	Crustacea	EC50	Water flea (Daphnia magna)	10330 - 16360 mg/l, 48 hours
	Fish	LC50	Bleak (Alburnus alburnus)	> 10000 mg/l, 96 hours
12.2. Persistence and degradability		Not available.		
12.3. Bioaccumulative potential		Not available.		
Partition coefficient n-octanol/water (log Kow)				
2-pyrrolidone		-0.85		
Alkyldicarboxylic acid		-0.59		
Bioconcentration factor (BCF)		Not available.		
12.4. Mobility in soil		Not available.		
12.5. Results of PBT and vPvB assessment		Not a PBT or vPvB substance or mixture.		
12.6. Other adverse effects		Not available.		

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Not available.

Contaminated packaging Not available.

EU waste code Not available.

Disposal methods/information Dispose of in compliance with federal, state, and local 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>.

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Not listed.

Authorizations

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorization

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not regulated.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not regulated.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not regulated.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Not regulated.

Directive 94/33/EC on the protection of young people at work

Not regulated.

Other 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.

National regulations

Not available.

15.2. Chemical Safety Assessment

Not available.

SECTION 16: Other information

References

Not available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R21/22 Harmful in contact with skin and if swallowed.
R22 Harmful if swallowed.
R36 Irritating to eyes.
R36/37 Irritating to eyes and respiratory system.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

Safety phrase(s)

S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Revision information

Product and Company Identification: Synonyms
Composition / Information on Ingredients: Ingredients
Fire Fighting Measures: Fire & Explosion Properties
Physical & Chemical Properties: Physical & Chemical Properties
Ecological Information: Ecotoxicity
14. Transport Information: Material Transportation Information
Regulatory Information: Safety Phrases
HazReg Data: Europe - EU

Training information

Not available.

Disclaimer

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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