



# SAFETY DATA SHEET

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

**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. \*\*\*

### 1.1. Product identifier

**Trade name or designation of the mixture** C4821Series  
**Registration number** -  
**Synonyms** None.  
**Issue date** 27-Jun-2013  
**Version number** 10  
**Revision date** 06-Jun-2020  
**Supersedes date** 01-Jun-2020

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

**Identified uses** Inkjet printing  
**Uses advised against** None known.

### 1.3. Details of the supplier of the safety data sheet

HP Europe B.V.  
PO Box 667  
1180 AR Amstelveen  
The Netherlands

**Telephone** +31-20-721-3400

### 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

**1.4 Emergency telephone number** 1-760-710-0048

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 as amended

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.

#### Health hazards

Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Reproductive toxicity (fertility, the unborn child)	Category 1B	H360 - May damage fertility or the unborn child.

#### Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 3	H412 - Harmful to aquatic life with long lasting effects.
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### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** 2-pyrrolidone, succinic acid

## Hazard pictograms



## Signal word

Danger

## Hazard statements

H318 Causes serious eye damage.  
H360 May damage fertility or the unborn child.  
H412 Harmful to aquatic life with long lasting effects.

## Precautionary statements

### 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.  
P273 Avoid release to the environment.

### Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
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.

**Supplemental label information** None.

## 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	60-80	7732-18-5 231-791-2	-	-	
<b>Classification:</b>	-				
2-pyrrolidone	<10	616-45-5 210-483-1	01-2119475471-37-XXXX	-	
<b>Classification:</b>	Eye Irrit. 2;H319, Repr. 1B;H360				
Trimethylolpropane	<10	77-99-6 201-074-9	01-2119486799-10-XXXX	-	
<b>Classification:</b>	Repr. 2;H361				
succinic acid	<7.5	110-15-6 203-740-4	01-2119896114-34-XXXX	-	
<b>Classification:</b>	Eye Dam. 1;H318				
C11-C15 secondary ethoxylated alcohols	<2.5	68131-40-8 -	-	-	
<b>Classification:</b>	Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Irrit. 2;H315, Eye Dam. 1;H318, Aquatic Chronic 1;H410				
Di(tetramethylammonium)(29H,31H-p hthalocyanin-N29,N30,N31,N32)disulfonamide disulfonate, cuprate(2-)complex, derivatives	<2.5	12222-04-7 416-180-2	01-0000016309-68-XXXX	650-046-00-6	
<b>Classification:</b>	Acute Tox. 4;H302, STOT RE 2;H373, Aquatic Chronic 2;H411				

#### 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.

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## SECTION 4: First aid measures

General information	Not available.
<b>4.1. Description of first aid measures</b>	
<b>Inhalation</b>	Move to fresh air. If symptoms persist, get medical attention.
<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
<b>Eye contact</b>	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>Ingestion</b>	If ingestion of a large amount does occur, seek medical attention.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	Not available.
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	Not available.

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## SECTION 5: Firefighting measures

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

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## SECTION 6: Accidental release measures

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

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## SECTION 7: Handling and storage

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

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## SECTION 8: Exposure controls/personal protection

<b>8.1. Control parameters</b>	
<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Recommended monitoring procedures</b>	Not available.

### Derived no effect levels (DNELs)

Components	Type	Route	Value	Form
2-pyrrolidone (CAS 616-45-5)	Consumers	Dermal	6 mg/kg bw/d	Systemic long term
		Dermal	167 mg/kg bw/d	Systemic acute short term

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Components	Type	Route	Value	Form	
succinic acid (CAS 110-15-6)	Workers	Inhalation	17.1 mg/m3	Systemic long term	
		Oral	5.2 mg/kg bw/d	Systemic long term	
		Oral	33.3 mg/kg bw/d	Systemic acute short term	
		Dermal	277 mg/kg bw/d	Systemic acute short term	
		Dermal	10 mg/kg bw/d	Systemic long term	
		Inhalation	57.8 mg/m3	Systemic long term	
	Consumers	Dermal	67 mg/kg	Systemic short term	
		Dermal	43 mg/kg	Systemic long term	
		Inhalation	10 mg/m3	Local long term	
		Inhalation	10 mg/m3	Local short term	
		Inhalation	10 mg/m3	Systemic long term	
		Inhalation	10 mg/m3	Systemic short term	
		Workers	Oral	67 mg/kg	Systemic short term
			Dermal	71 mg/kg	Systemic long term
			Dermal	67 mg/kg	Systemic short term
			Inhalation	10 mg/m3	Local long term
			Inhalation	10 mg/m3	Local short term
			Inhalation	10 mg/m3	Systemic long term
Inhalation	10 mg/m3	Systemic short term			

#### Predicted no effect concentrations (PNECs)

Components	Type	Route	Value	Form
2-pyrrolidone (CAS 616-45-5)	Not applicable	Freshwater	0.5 mg/l	Releases
		Intermittent	0.5 mg/l	
		Marine water	0.05 mg/l	Freshwater
		Sediment	0.4205 mg/kg	
		Soil	0.0612 mg/kg	
		STP	10 mg/l	
succinic acid (CAS 110-15-6)	Not applicable	Freshwater	0.1 mg/l	Releases
		Intermittent	1 mg/l	
		Marine water	0.01 mg/l	Freshwater
		Sediment	0.079 mg/kg	
		Sediment	0.0079 mg/kg	
		Soil	0.0177 mg/kg	Marine water
		STP	3 mg/l	
				Sewage Treatment Plant

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

#### 8.2. Exposure controls

**Appropriate engineering controls** Use in a well ventilated area.  
Provide adequate ventilation.

#### Individual protection measures, such as personal protective equipment

**General information** Not available.  
**Eye/face protection** Not available.  
**Skin protection**  
- Hand protection Recommended gloves: Nitrile 4 mil minimum thickness.  
- Other Use personal protective equipment to minimize exposure to skin and eye.  
**Respiratory protection** Not available.  
**Thermal hazards** Not available.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** Not available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state** Liquid.  
**Form** Not available.  
**Color** Cyan

**Odor** Not available.

**Odor threshold** Not available.

pH	3.8 - 4.3
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not determined
Flash point	> 230.0 °F (> 110.0 °C) Pensky-Martens Closed Cup
Evaporation rate	Not determined
Flammability (solid, gas)	Not available.
<b>Upper/lower flammability or explosive limits</b>	
Flammability limit - lower (%)	Not determined
Flammability limit - upper (%)	Not available.
Vapor pressure	Not determined
Vapor density	Not available.
<b>Solubility(ies)</b>	
Solubility (water)	Soluble in water
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	>= 2 cp
Explosive properties	Not available.
Oxidizing properties	Not determined
<b>9.2. Other information</b>	
Percent volatile	10 % estimated
VOC	< 221 g/l Estimated

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## SECTION 10: Stability and reactivity

10.1. Reactivity	Not available.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	Will not occur.
10.4. Conditions to avoid	Not available.
10.5. Incompatible materials	Incompatible with strong bases and oxidizing agents.
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.
<b>Information on likely routes of exposure</b>	
Inhalation	Inhalation may result in mild irritation to the respiratory system.
Skin contact	Contact with skin may result in mild irritation.
Eye contact	Causes serious eye damage.
Ingestion	Ingestion is not a likely route of exposure.
Symptoms	Not available.

### 11.1. Information on toxicological effects

**Acute toxicity** Based on available data, the classification criteria are not met.

Components	Species	Test Results
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2-pyrrolidone (CAS 616-45-5)

**Acute**

**Oral**

LD50

Rat

> 5000 mg/kg

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.  
Non irritant in rabbit (OECD 404)

**Serious eye damage/eye irritation** Causes serious eye damage.

<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met.
<b>Skin sensitization</b>	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	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).
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>Mixture versus substance information</b>	Not available.
<b>Other information</b>	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.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Aquatic toxicity** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Static acute toxicity (trout), survival (100 mg/L) = 90%  
Static acute toxicity (trout), survival (10 mg/L) = 100%

Product	Species	Test Results
C4821Series		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Algae > 100 mg/l, 72 hours
Crustacea	EC50	Daphnia > 66 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) < 400 mg/l, 96 hours
Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia pulex) 13.21 mg/l, 48 hours
Di(tetramethylammonium)(29H,31H-phthalocyanin-N29,N30,N31,N32)disulfonamide disulfonate, cuprate(2-)complex, derivates (CAS 12222-04-7)		
<b>Aquatic</b>		
Crustacea	EC50	Daphnia 50 - 100 mg/l, 48 Hours
succinic acid (CAS 110-15-6)		
<b>Aquatic</b>		
Fish	LC50	Fish 101, 96 Hours
Trimethylolpropane (CAS 77-99-6)		
<b>Aquatic</b>		
Crustacea	EC50	Daphnia 102, 48 Hours
Fish	LC50	Fish 1000, 96 Hours
<b>12.2. Persistence and degradability</b>	Not available.	
<b>12.3. Bioaccumulative potential</b>	Not available.	
<b>Partition coefficient n-octanol/water (log Kow)</b>		
2-pyrrolidone	-0.85	
succinic acid	-0.59	
<b>Bioconcentration factor (BCF)</b>	Not available.	
<b>12.4. Mobility in soil</b>	Not available.	
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.	

12.6. Other adverse effects Not available.

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## 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** 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>.

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## SECTION 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.

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## 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 and II, as amended**

Not listed.

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

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 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, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### **Authorizations**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

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, as amended**

Not listed.

#### **Other EU regulations**

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Direct Blue 199 Tetramethylammonium Salt (CAS Proprietary)

#### **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.

#### **Other information**

Specific Provisions: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (in the amended version OJ L 396 from 29.05.2007 page 3 with further rectifications and amendments).

#### **National regulations**

Not available.

**Non-exhaustive list of substances toxic for reproduction**

Not listed.

**SZW list of carcinogenic substances**

Not listed.

**SZW list of mutagenic substances**

Not listed.

#### **15.2. Chemical safety assessment**

See attached SUMI or GEIS document, if applicable.

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## **SECTION 16: Other information**

#### **References**

Regulation (EC) No. 1907/2006 of December 18, 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency (REACH).

Regulation (EU) 2015/830 of May 28, 2015 amending Regulation (EC) No. 1907/2006.

Regulation (EC) No. 1272/2008 of December 16, 2008 on classification, labeling and packaging of substances and mixtures, and amendments (CLP).

#### **Information on evaluation method leading to the classification of mixture**

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.



**Full text of any H-statements  
not written out in full under  
Sections 2 to 15**

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H360 May damage fertility or the unborn child.  
H361 Suspected of damaging fertility or the unborn child by skin contact.  
H373 May cause damage to organs through prolonged or repeated exposure by ingestion.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.

**Revision information**

None.

**Training information**

Follow training instructions when handling this material.

**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.

This safety data sheet is meant to convey information about HP inks (toners) provided in HP Original ink (toner) supplies. If our Safety Data Sheet has been provided to you with a refilled, remanufactured, compatible or other non-HP Original supply please be aware that the information contained herein was not meant to convey information about such products and there could be considerable differences from information in this document and the safety information for the product you purchased. Please contact the seller of the refilled, remanufactured or compatible supplies for applicable information, including information on personal protective equipment, exposure risks and safe handling guidance. HP does not accept refilled, remanufactured or compatible supplies in our recycling programs.

**Explanation of abbreviations**

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

# Safe Use of Mixture Information (SUMI)

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## Water Based Ink: WB01 \*English\*

### Disclaimer

*This SUMI is a generic document for communicating conditions of safe use of a product in response to the REACH obligation. This document relates only to conditions of safe use and is not specific to a product. By adding this SUMI to a specific product SDS, the importer/formulator declares that the mixture can safely be used following the instructions below. Following occupational health legislation, the employer of workers remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product. Derived No Effect Levels (DNEL) and Predicted No Effect Concentration (PNEC) values of substances derived from the Chemical Safety Assessment (CSA) will be given in section 8 of the SDS.*

*The REACH registration number(s), where applicable, completes an extended product SDS.*

### Operational conditions

<b>Maximum duration</b>	Up to 8 hours per day
<b>Frequency of exposure</b>	< 240 days per year
<b>Process conditions</b>	Covers use at ambient temperatures. Adequate ventilation should be provide for the areas where printing is performed. ANSI/ASHRAE Standard 62.1-2013 provides guidelines to ensure acceptable air quality in the workspace. Avoid direct contact. Regular cleaning of equipment and work area. Supervision in place to check that Risk Management Measures are in place are being correctly used and Operational Conditions followed.

### Risk management measures

<b>Conditions and measures related to Personal Protection Equipment, hygiene and health evaluation</b>	<p>Wear safety glasses with side shields (or goggles), if splashing is possible. Wear appropriate chemical resistant gloves: see section 8 of the SDS. Wear appropriate chemical resistant clothing. In case of inadequate ventilation wear respiratory protection. Eye wash fountain and emergency showers are recommended. Avoid breathing mist/vapours. Avoid contact with skin, eyes and clothing. Training of workers in relation to proper use and maintenance of all Personal protection equipment (PPE) must be ensured.</p> <div style="display: flex; justify-content: space-around; align-items: center;">     </div>
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### Good practice advice

Use personal protective equipment as required.  
Wash hands before breaks and after work.  
Keep good industrial hygiene and safety practice.  
Use only with adequate ventilation.  
Do no eat, drink or smoke when using this product.  
Wash contaminated clothing before reuse.  
Store at room temperature.



### Environmental measures

Do not allow this material to drain into sewers/water supplies.  
Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.  
Ensure collection and disposal with appropriately licenced waste contractor.

### Use descriptors

- IS-Use at industrial sites
- PW-Widespread use by professional workers
- SU7-Printing and reproduction media
- PC18-Inks and Toners
- PROC1-Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
- PROC2-Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
- PROC3- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
- PROC8a-Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
- PROC8b-Transfer of substance or mixture (charging and discharging) at dedicated facilities
- ERC5-Use at industrial site leading to inclusion into/onto article
- ERC8c-Widespread use leading to inclusion into/onto article (indoor)

### Additional information on product composition

In section 2 of the SDS as well as on the label, the classification of the mixture is provided.  
Most of the water based inks are "not classified".  
The classification of the mixture is based on the individuel ingredients and their concentration within the mixture.  
All ingredients contributing to the classification are stated in Section 3 of the SDS.  
Relevant limit values of ingredients on which the exposure assessment is based, are listed in section 8 of the SDS.  
The product may contain sensitizing ingredients that may cause allergic reaction to certain people.  
Section 2 of the SDS states these ingredients where applicable.