



SAFETY DATA SHEET

Section 1. Identification of the chemical and information on the person placing the chemical on the market

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. Chemical identification	C4991Series	
Other means of identification	None.	
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 Computing and Printing d.o.o., Omladinskih Brigada 90b, Belgrade Serbia 11070	
	HP Europe B.V. PO Box 667 1180 AR Amstelveen The Netherlands	
Telephone	+31 20 721 3400	
HP Inc. health effect line		
(Toll-free within 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

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

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements

H360 May damage fertility or the unborn child.

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.

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.

2.3. Other hazards

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

Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.

Section 3. Composition/information on ingredients**3.2. Mixtures****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Water	80-90	7732-18-5 231-791-2	-	-	
Classification:	-				
2-pyrrolidone	<5	616-45-5 210-483-1	01-2119475471-37-XXXX	-	
Classification:	Eye Irrit. 2;H319, Repr. 1B;H360				
2-methyl-2h-isothiazol-3-one	<0.1	2682-20-4 220-239-6	01-2120764690-50-XXXX	-	
Classification:	Acute Tox. 3;H301, Acute Tox. 3;H311, Skin Corr. 1B;H314, Skin Sens. 1A;H317, Eye Dam. 1;H318, Acute Tox. 2;H330, Aquatic Acute 1;H400(M=10), Aquatic Chronic 1;H410				
1,2-Benzisothiazolin-3-one	<0.05	2634-33-5 220-120-9	01-2120761540-60-XXXX	613-088-00-6	
Classification:	Acute Tox. 4;H302, Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Dam. 1;H318, Aquatic Acute 1;H400(M=1), 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.

Section 4. First aid measures**4.1. Description of first aid measures****Inhalation**

Remove to fresh air. If symptoms persist, get medical attention.

Skin contact

Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.

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

Not available.

General information

Not available.

Section 5. Fire fighting measures**5.1. Extinguishing media****Suitable extinguishing media**Dry chemical, CO₂, water spray or regular 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.
Specific methods	None established.
General fire hazards	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 and 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 levels (DNELs)

Components	Type	Route	Value	Form
2-pyrrolidone (CAS 616-45-5)	Consumers	Dermal	0.67 mg/kg bw/d	Systemic long term
		Inhalation	1.985 mg/m3	Systemic long term
		Oral	0.67 mg/kg bw/d	Systemic long term
	Workers	Dermal	4.2 mg/kg bw/d	Systemic long term
		Inhalation	29.62 mg/m3	Systemic long 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	
		Sediment	0.4205 mg/kg	Freshwater
		Soil	0.0612 mg/kg	
		STP	10 mg/l	

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 required under intended use.
Skin protection	
- Hand protection	Not available.
- Other	Use personal protective equipment to minimize exposure to skin and eye.
Respiratory protection	For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.

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	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
Evaporation rate	Not determined
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not determined
Flammability limit - upper (%)	Not available.
Vapor pressure	Not determined
Vapor density	>= 1 (air = 1.0)
Solubility(ies)	
Solubility (water)	Soluble in water
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidizing properties	Not determined
9.2. Other information	
VOC	< 143 g/l

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.

Section 11. Toxicological information

General information	Not available.
Information on likely routes of exposure	
Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact	Contact with skin may result in mild irritation.
Eye contact	Contact with eyes may result in mild irritation.
Ingestion	Health injuries are not known or expected under normal use.
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
2-methyl-2h-isothiazol-3-one (CAS 2682-20-4)		
Acute		
Dermal		
LD50	Rat	242 mg/kg
Inhalation		
LC50	Rat	0.11 mg/l, 4 h
Oral		
LD50	Rat	120 mg/kg
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.	
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.	
Respiratory or skin sensitization		
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.	
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.	
Mixture versus substance information	Not available.	
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.	

Section 12. Ecotoxicological information

12.1. Toxicity

Product	Species	Test Results
C4991Series		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 750 mg/l, 96 hours
Components		
Species		
Test Results		
2-methyl-2h-isothiazol-3-one (CAS 2682-20-4)		
<i>Acute</i>		
Other	EC50	<i>Pseudokirchnerella subcapitata</i> 0.138 - 0.22 mg/l, 120 h (OECD 201)
<i>Chronic</i>		
	NOEC	<i>Pseudokirchneriella subcapitata</i> 0.05 mg/l, 120 h (OECD 201)
Aquatic		
<i>Acute</i>		
Crustacea	EC50	<i>Daphnia magna</i> 1.6 mg/l, 48 h (OECD 202)
	LC50	<i>Daphnia magna</i> 0.934 mg/l, 48 h (OECD 202)

Components	Species	Test Results
Fish 2-pyrrolidone (CAS 616-45-5)	LC50 Oncorhynchus mykiss	4.77 mg/l, 96 h (OECD 203)
Aquatic Crustacea	EC50 Water flea (Daphnia pulex)	13.21 mg/l, 48 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	
Bioconcentration factor (BCF) 2-methyl-2h-isothiazol-3-one	48.1, Viscera (1972) Species: Bluegill (Lepomis macrochirus) 5.75, Carcass (1972) Species: Bluegill (Lepomis macrochirus)	
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

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. Dispose of in compliance with federal, state, and local regulations.

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.

Section 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Restrictions and prohibitions on manufacture, placing on the market and use of chemicals (Regulation 90/2013, Annex 1, Part 1, as amended)**

Not listed.

Other information

This Safety Data Sheet complies with the requirements of Regulation (EU) 2015/830. Classification according to Regulation (EC) No 1272/2008 as amended. 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).

International 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.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

15.2. Chemical safety assessment

See attached SUMI or GEIS document, if applicable.

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

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H360 May damage fertility or the unborn child.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

Revision information

Training information

Disclaimer

None.

Follow training instructions when handling this material.

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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