



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	2LL56Series	
Other means of identification	Not available.	
B. Recommended use and Limitations on use		
Recommended use	Inkjet printing	
C. Supplier information		
	HP Inc. 07325 83 Uisadang-daero Youngdeungpo-gu Seoul, Korea	
Telephone	02-780-6200	
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	Sensitization, skin	Category 1
Environmental hazards	Not classified.	

B. Warning label items including precautionary statement

• Pictogram



• **Signal word** Warning

• Hazard statement

H317 May cause an allergic skin reaction.

• Precautionary statement

Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing dust/fume/mist/vapors.
P272 Contaminated work clothing should not be allowed out of the workplace.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

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	80-90
2-pyrrolidone		616-45-5	KE-29978	<1
1,2-Benzisothiazolin-3-one (Benzisothiazolinone)		2634-33-5	KE-02680	<0.05
2-Methyl-2h-isothiazol-3-one (Methylisothiazolinone)		2682-20-4	KE-24316, 2012-1-645	<0.05

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. Get medical attention if irritation develops or persists.
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 Dry chemical, CO₂, water spray or regular 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	Wear safety glasses with side shields (or goggles).
• Hand protection	Wear appropriate chemical resistant gloves.
• 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	Liquid.
Color	Yellow
B. Odor	Not available.
C. Odor threshold	Not available.
D. pH	8.2
E. Melting point/freezing point	Not available.
F. Boiling point, initial boiling point, and boiling range	Not available.
G. Flash point	336.0 °F (168.9 °C)
H. Evaporation rate	Not available.
I. Flammability (solid, gas)	Not available.
J. Upper/lower limit on flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
K. Vapor pressure	Not available.
L. Solubility	
Solubility (water)	Not available.
M. Vapor density	Not available.
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
VOC	4.5 %

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** Not available.
- **Skin** Not available.
- **Eyes** Not available.
- **Mouth** Not available.

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
1,2-Benzisothiazolin-3-one (Benzisothiazolinone) (CAS 2634-33-5)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	490 mg/kg
2-Methyl-2h-isothiazol-3-one (Methylisothiazolinone) (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
• 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.	
• 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	Based on available data, the classification criteria are not met.	
	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

Components		Species	Test Results
1,2-Benzisothiazolin-3-one (Benzisothiazolinone) (CAS 2634-33-5)			
<i>Acute</i>			
Other	EC50	Pseudokirchnerella subcapitata	70 - 150 µg/l, 72 h OECD (201)
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	2.9 mg/l, 48 h (OECD 202)
Fish	LC50	Oncorhynchus mykiss	2.15 mg/l, 96 h (OECD 203)
		Sheepshead minnow (Cyprinodon variegatus)	16.7 mg/l, 96 h EPA 540/9-85-006
2-Methyl-2h-isothiazol-3-one (Methylisothiazolinone) (CAS 2682-20-4)			
<i>Acute</i>			
Other	EC50	Pseudokirchnerella subcapitata	0.138 - 0.22 mg/l, 120 h (OECD 201)
<i>Chronic</i>			
	NOEC	Pseudokirchneriella subcapitata	0.05 mg/l, 120 h (OECD 201)
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	1.6 mg/l, 48 h (OECD 202)
	LC50	Daphnia magna	0.934 mg/l, 48 h (OECD 202)
Fish	LC50	Oncorhynchus mykiss	4.77 mg/l, 96 h (OECD 203)
2-pyrrolidone (CAS 616-45-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours

B. Persistence/degradability Not available.

C. Bioaccumulative potential

Bioconcentration factor

1,2-Benzisothiazolin-3-one (Benzisothiazolinone)	6.62, (OECD 305) Species: Bluegill (Lepomis macrochirus)
2-Methyl-2h-isothiazol-3-one (Methylisothiazolinone)	48.1, Viscera (1972) Species: Bluegill (Lepomis macrochirus) 5.75, Carcass (1972) Species: Bluegill (Lepomis macrochirus)

Octanol/water partition coefficient log Kow

2-pyrrolidone	-0.85
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D. Mobility in soil Not available.

E. Other adverse effects Not available.

13. Disposal considerations

A. Method of disposal Do not dispose of together with general office waste. 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 an appropriately licensed waste contractor.
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>.

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)

1,2-Benzisothiazolin-3-one (Benzisothiazolinone) (CAS 2634-33-5)

2-Methyl-2h-isothiazol-3-one (Methylisothiazolinone) (CAS 2682-20-4)

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

20-Mar-2019

C. Number of revisions and date of most recent revision

27-Apr-2021 (07 revision)

D. Other

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