




SAFETY DATA SHEET

Section 1: Identification of the hazardous chemical and of the supplier

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. ***	
Product identifier	51605R Rev B	
Other means of identification	None.	
Recommended use of the chemical and restrictions on use		
Recommended use	Inkjet printing	
Recommended restrictions	None known.	
Details of principal suppliers	HP PPS Malaysia Sdn. Bhd. Ground Floor Customer Service, Block B, No.12 Jalan Gelenggang, HP Towers, Bukit Damansara Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur, Malaysia 50490	
Telephone	60-3-7953-3333	
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	

Section 2: Hazard identification

Physical hazards	Not classified.	
Health hazards	Reproductive toxicity (fertility, the unborn child)	Category 1B
	Specific target organ toxicity, repeated exposure	Category 2 (kidney)
Environmental hazards	Not classified.	
Label elements		
		
Signal word	Danger	
Hazard statement	May damage fertility or the unborn child. May cause damage to organs (kidney) through prolonged or repeated exposure.	
Precautionary statement		
Prevention	Wear protective gloves/protective clothing/eye protection. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe mist or vapor.	
Response	Get medical attention/advice if you feel unwell. IF exposed or concerned: Get medical advice/attention.	
Storage	Store locked up.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Other hazards which do not result in classification	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.	

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.

Section 3: Composition and information of the ingredients of the hazardous chemical**Mixtures****Hazardous components**

Chemical name	Common name and synonyms	CAS number	%
2-pyrrolidone		616-45-5	<30
Ethylene glycol		107-21-1	<30
Alkyldiol		Proprietary	<7.5
Acid Yellow 23 Tetramethylammonium Salt		Proprietary	<2.5

Non-hazardous components

Chemical name	Common name and synonyms	CAS number	%
Water		7732-18-5	40-50

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

Inhalation	Move 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.
Most important symptoms/effects, acute and delayed	Not available.
Indication of immediate medical attention and special treatment needed	Not available.

Section 5: Fire-fighting measures

Suitable extinguishing media	Dry chemical, CO2, water spray or regular foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	Not available.
HAZCHEM code	None.
Specific methods	None established.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear appropriate personal protective equipment.
Environmental precautions	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
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.

Section 7: Handling and storage

Precautions for safe handling	Avoid contact with skin, eyes and clothing.
Conditions for safe storage, including any incompatibilities	Keep out of the reach of children. Keep away from excessive heat or cold.

Section 8: Exposure controls and personal protection

Occupational exposure limits

Malaysia. OELs. (Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol.
		39.4 ppm	Aerosol.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Exposure limits have not been established for this product.

Appropriate engineering controls

Use in a well ventilated area.

Individual protection measures, such as personal protective equipment

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.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and chemical properties

Appearance

liquid

Physical state

Liquid.

Form

Not available.

Color

Red, Magenta

Odor

Not available.

Odor threshold

Not available.

pH

7 - 7.4

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not determined

Flash point

338.0 - 347.0 °F (170.0 - 175.0 °C) Closed Cup EPA Method 1020

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.

Explosive limit - lower (%)

Not available.

Explosive 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

>= 2 cp

Other information	
Oxidizing properties	Not determined
Percent volatile	25 % estimated
VOC	< 578 g/l Estimated

Section 10: Stability and reactivity

Reactivity	Not available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Will not occur.
Conditions to avoid	Not available.
Incompatible materials	Incompatible with strong bases and oxidizing agents.
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

Information on likely routes of exposure

Inhalation	Inhalation may result in mild irritation to the respiratory system.
Skin contact	Contact with skin may result in mild irritation.
Eye contact	Contact with eyes may result in mild irritation.
Ingestion	Ingestion is not a likely route of exposure.

Symptoms related to the physical, chemical and toxicological characteristics Not available.

Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met. LD50/oral/rat >2500 mg/kg (OECD 401).

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg
Acid Yellow 23 Tetramethylammonium Salt		
Acute		
Dermal		
LD50	Rabbit	2000 mg/kg
Oral		
LD50	Rat	81 mg/kg
Chronic		
Oral		
NOAEL	Rat	1 mg/kg
Ethylene glycol (CAS 107-21-1)		
Acute		
Dermal		
LD50	Rabbit	9530 mg/kg
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 2.5 mg/l, 6 Hours
Other		
LD50	Rat	2800 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	Based on available data, the classification criteria are not met. Not classified as an irritant according to, OECD 405.	
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.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

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 May cause damage to organs (kidney) through prolonged or repeated exposure by ingestion.

Aspiration hazard Based on available data, the classification criteria are not met.

Further 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: Ecological information

Ecotoxicity

Product	Species	Test Results
51605R Rev B		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 750 mg/l, 96 hours
Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia pulex</i>) 13.21 mg/l, 48 hours
Acid Yellow 23 Tetramethylammonium Salt		
Aquatic		
Algae	IC50	Algae <= 100 mg/l, 72 Hours
Crustacea	EC50	Daphnia 30 mg/l, 48 Hours
Fish	LC50	Fish 1000 mg/l, 96 Hours

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Partition coefficient n-octanol / water (log Kow)

2-pyrrolidone	-0.85
Ethylene glycol	-1.36

Mobility in soil Not available.

Other adverse effects Not available.

Section 13: Disposal information

Disposal instructions 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.

Waste from residues / unused products Not available.

Contaminated packaging Not available.

Section 14: Transportation 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	None
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	None
Special precautions for user	Not available.
HAZCHEM code	None.
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

Safety, health and environmental regulations specific for the product in question

Active Ingredients of Pesticide Product (Pesticide Act 1974, First Schedule, as amended through October 1, 2004)

Not regulated.

CWC (Chemical Weapons Convention) Act 2005, Schedules 1-3, as amended through CWC Regulations 2007, October 5, 2007)

Not regulated.

Ozone Depleting Substances (ODS) (Environmental Quality (Prohibition on the Use of CFC and Other Gases as Propellants and Blowing Agents) Order 1993, Dec. 31, 1993)

Not regulated.

Prohibited Use of Substances [Occupational Safety and Health (Prohibition of Use of Substance) Order 1999]

Not regulated.

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.

Section 16: Other information

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References Not available.
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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

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