



SAFETY DATA SHEET

1. 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. ***	
Product identifier	51605R Rev B	
Other means of identification	None.	
Recommended use of the chemical and restrictions on use		
Recommended use	Inkjet printing	
Restrictions on use	Not available.	
Details of manufacturer or importer		
	HP PPS Australia Pty Ltd 353 Burwood Hwy L1 Forest Hill, Victoria, Australia 3131	
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. Hazard(s) identification

Classification of the hazardous chemical

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, including precautionary statements

Hazard symbol(s)



Health hazard

Signal word

Danger

Hazard statement(s)

May damage fertility or the unborn child. May cause damage to organs (kidney) through prolonged or repeated exposure.

Precautionary statement(s)

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.

Supplemental information

Complete toxicity data are not available for this specific formulation.
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

Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Water	7732-18-5	40-50
2-pyrrolidone	616-45-5	<30
Ethylene glycol	107-21-1	<30
Alkyldiol	Proprietary	<7.5
Acid Yellow 23 Tetramethylammonium Salt	Proprietary	<2.5

Composition comments

This ink supply contains an aqueous ink formulation.
This product was evaluated according to the criteria of the Australia Work Health and Safety Regulations (WHS Regulations). 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

Description of necessary 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.

Personal protection for first-aid responders Not available.

Symptoms caused by exposure Not available.

Medical attention and special treatment Not available.

5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** Dry chemical, CO2, water spray or regular foam.
- Unsuitable extinguishing media** None known.

Specific hazards arising from the chemical Not available.

Special protective equipment and precautions for fire fighters Not available.

Hazchem code None.

Specific methods None established.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Wear appropriate personal protective equipment.

For emergency responders Not available.

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.

Other issues relating to spills and releases Soak up with inert absorbent material. Slowly vacuum or sweep the material into a bag or other sealed container.

Dispose of in compliance with federal, state, and local regulations.
See also section 13 Disposal considerations.

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.

8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
Ethylene glycol (CAS 107-21-1)	STEL	104 mg/m ³
	TWA	40 ppm
		10 mg/m ³
		20 ppm

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	STEL	104 mg/m ³	Vapor.
	TWA	40 ppm	Vapor.
		52 mg/m ³	Vapor.
		10 mg/m ³	Particulate.
		20 ppm	Vapor.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m ³	Aerosol.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	STEL	104 mg/m ³	Vapor.
	TWA	40 ppm	Vapor.
		52 mg/m ³	Vapor.
		10 mg/m ³	Particulate.
		20 ppm	Vapor.

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	TWA	26 mg/m ³	Vapor and aerosol.
		10 ppm	Vapor and aerosol.

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

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

Australia OELs: Skin designation

Ethylene glycol (CAS 107-21-1) Can be absorbed through the skin.

Appropriate engineering controls Use in a well ventilated area.

Individual protection measures, for example personal protective equipment (PPE)

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.

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 physical and chemical parameters

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

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.

11. Toxicological information

Information on possible 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 exposure Not available.

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/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.

ACGIH Carcinogens

Ethylene glycol (CAS 107-21-1) A4 Not classifiable as a human carcinogen.

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.

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.

12. Ecological information

Ecotoxicity

Product	Species	Test Results
---------	---------	--------------

51605R Rev B

Aquatic

Acute

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

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.

13. Disposal considerations

Disposal methods 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.

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	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.

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

Safety, health and environmental regulations

National regulations

Australia Medicines & Poisons Appendix A

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix B

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix D

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix E

Ethylene glycol (CAS 107-21-1)

Australia Medicines & Poisons Appendix F

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix G

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix H

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix I

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix J

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix K

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 10

Ethylene glycol (CAS 107-21-1)

Australia Medicines & Poisons Schedule 2

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 3

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 5

Ethylene glycol (CAS 107-21-1)

Australia Medicines & Poisons Schedule 6

Ethylene glycol (CAS 107-21-1)

Australia Medicines & Poisons Schedule 7

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 8

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 9

Poisons schedule number not allocated.

Australia National Pollutant Inventory (NPI): Threshold quantity

Ethylene glycol (CAS 107-21-1)

10 TONNES/YR Threshold Category: 1

High Volume Industrial Chemicals (HVIC)

Ethylene glycol (CAS 107-21-1)

10000 - 99999 TONNES See the regulation for additional information.

Water (CAS 7732-18-5)

1000 - 9999 TONNES See the regulation for additional information.

Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

Restricted Carcinogenic Substances

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.

Kyoto protocol
Not applicable.
Montreal Protocol
Not applicable.
Basel Convention
Not applicable.

16. Other information

Issue date 15-Jul-2017
Revision date 28-May-2020
Other information This SDS was prepared in compliance with the NOHSC document "National Code of Practice for the Preparation of Material Safety Data Sheets", 2003.
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

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