



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	Inkjet printing	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information	HP Inc. 1501 Page Mill Road Palo Alto, CA 94304-1112 United States	
Telephone	650-857-1501	
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

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.	
OSHA defined 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 the 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.	

Hazard(s) not otherwise classified (HNOC)

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: OSHA Hazard Communication Standard cut-off value, 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**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
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 has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

2-pyrrolidone: OSHA Hazard Communication Standard cut-off value 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.

*Proprietary

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.

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.

Specific methods

None established.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Wear appropriate personal protective equipment.

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.

Environmental precautions

Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

7. Handling and storage**Precautions for safe handling**

Avoid contact with skin, eyes and clothing.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

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

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	For other VOC regulatory data/information see Section 15.
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 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.
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Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met. LD50/oral/rat >2500 mg/kg (OECD 401).
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Components	Species	Test Results
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2-pyrrolidone (CAS 616-45-5)

Acute

Oral

LD50	Rat	> 5000 mg/kg
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Acid Yellow 23 Tetramethylammonium Salt

Acute

Dermal

LD50	Rabbit	2000 mg/kg
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Oral

LD50	Rat	81 mg/kg
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Chronic

Oral

NOAEL	Rat	1 mg/kg
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Ethylene glycol (CAS 107-21-1)

Acute

Dermal

LD50	Rabbit	9530 mg/kg
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Inhalation

Aerosol

LC50	Rat	> 2.5 mg/l, 6 Hours
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Other

LD50	Rat	2800 mg/kg
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Skin corrosion/irritation	Based on available data, the classification criteria are not met. Non irritant in rabbit (OECD 404)
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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.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

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.

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		
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.

13. Disposal considerations

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.

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

US federal regulations US TSCA 12(b): Does not contain listed chemicals.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethylene glycol (CAS 107-21-1) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Ethylene glycol (CAS 107-21-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations****California Proposition 65****California Proposition 65 - CRT: Listed date/Developmental toxin**

Ethylene glycol (CAS 107-21-1) Listed: June 19, 2015

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Ethylene glycol (CAS 107-21-1)

Other information VOC content (less water, less exempt compounds) = <1018 g/L (U.S. requirement, not for emissions)
VOC data based on formulation (Organic compounds minus solids)**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, including date of preparation or last revision**Issue date** 22-May-2015
Revision date 29-May-2020
Version # 09
Other information This SDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).**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.

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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