

# SAFETY DATA SHEET

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation

C6602A

of the mixture

Registration number

Synonyms None.

Issue date 26-May-2015

Version number 04

**Revision date** 01-Jan-2019 **Supersedes date** 29-May-2016

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified usesInkjet printingUses advised againstNone known.

1.3. Details of the supplier of the safety data sheet

HP Inc. UK Limited
Cain Road, Amen Corner
Bracknell, Berkshire RG12 1HN

United Kingdom

**Telephone** 44 (0) 879 013 0790

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

1.4 Emergency telephone

number

0207771 5307

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

### Classification according to Regulation (EC) No 1272/2008 as amended

**Health hazards** 

exposure

Skin sensitization Category 1 H317 - May cause an allergic skin

reaction.

Specific target organ toxicity - repeated

Category 2

H373 - May cause damage to organs (Kidney) through prolonged

or repeated exposure.

# 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

Contains: 1,2-hexanediol, 2-pyrrolidone, Ethylene glycol, Food Black 2 Tetramethylammonium Salt, Water

**Hazard pictograms** 



Signal word Warning

**Hazard statements** 

H317 May cause an allergic skin reaction.

H373 May cause damage to organs (Kidney) through prolonged or repeated exposure.

# **Precautionary statements**

Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

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.

P314 Get medical attention/advice if you feel unwell.
P363 Wash contaminated clothing before reuse.

Storage Not available.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information None.

**2.3. Other hazards** 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.

Contains Food Black 2 acid salt.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

### **General information**

Chemical name		%	CAS-No. / EC No.	REACH Registration No.	Index No.	Note
 Water		30-40	7732-18-5	-		
			231-791-2			
Classification:	-					
2-pyrrolidone		<30	616-45-5	01-2119475471-37-XXXX	-	
			210-483-1			
Classification:	Eye Irrit. 2;H31	9				
Ethylene glycol		<25	107-21-1	01-2119456816-28-XXXX	603-027-00-1	#
			203-473-3			
Classification:	Acute Tox. 4;H	302, ST	OT RE 2;H373			
1,2-hexanediol		<7.5	6920-22-5	01-2119987321-35-XXXX	-	
Classification:	Eye Irrit. 2;H31	9	-			
Food Black 2 Tetrameth Salt	ıylammonium	<5	116340-05-7 405-170-3	01-0000015470-78-XXXX	611-020-00-X	
Classification:	Acute Tox. 3:H	301, Sk	in Sens. 1;H317, Aqu	atic Chronic 3;H412		

### **SECTION 4: First aid measures**

General information Not available.

4.1. Description of 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.

Not available.

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

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4.3. Indication of any immediate medical attention and special treatment needed Not available.

# **SECTION 5: Firefighting measures**

General fire hazards Not available.

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.

# **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency

Wear appropriate personal protective equipment.

personnel

For emergency responders Not available.

6.2. Environmental precautions

6.3. Methods and material for

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

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.

containment and cleaning up

Not available.

6.4. Reference to other sections

# **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.

Not available. 7.3. Specific end use(s)

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

### Occupational exposure limits

### **UK. EH40 Workplace Exposure Limits (WELs)**

Components	Туре	Value	Form
Ethylene glycol (CAS 107-21-1)	STEL	104 mg/m3	Vapor.
		40 ppm	Vapor.
	TWA	52 mg/m3	Vapor.
		10 mg/m3	Particulate.
		20 ppm	Vapor.

#### EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU Components **Type** Value

Ethylene glycol (CAS 107-21-1)	STEL	104 mg/m3
,	TWA	40 ppm 52 mg/m3
		20 ppm

**Biological limit values** 

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

Recommended monitoring

procedures

Not available.

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# Derived no effect levels (DNELs)

Type	Route	Value	Form
Worker	Inhalation	123 mg/m3	Systemic long term
Consumers	Dermal	6 mg/kg bw/d	Systemic long term
	Dermal	167 mg/kg bw/d	Systemic acute short term
	Inhalation	17.1 mg/m3	Systemic long term
	Oral	5.2 mg/kg bw/d	Systemic long term
	Oral	33.3 mg/kg bw/d	Systemic acute short term
Workers	Dermal	277 mg/kg bw/d	Systemic acute short term
	Dermal	10 mg/kg bw/d	Systemic long term
	Inhalation	57.8 mg/m3	Systemic long term
Consumers	Dermal	53 mg/kg	Systemic long term
	Inhalation	7 mg/m3	Local long term
Workers	Dermal	106 mg/kg	Systemic long term
	Inhalation	35 mg/m3	Local long term
	Worker Consumers Workers	Worker Inhalation Consumers Dermal Inhalation Oral Oral Workers Dermal Inhalation Consumers Dermal Inhalation Workers Dermal Inhalation Dermal Inhalation Dermal Inhalation Dermal Inhalation	Worker         Inhalation         123 mg/m3           Consumers         Dermal         6 mg/kg bw/d           Dermal         167 mg/kg bw/d           Inhalation         17.1 mg/m3           Oral         5.2 mg/kg bw/d           Oral         33.3 mg/kg bw/d           Workers         Dermal         277 mg/kg bw/d           Inhalation         57.8 mg/m3           Consumers         Dermal         53 mg/kg           Inhalation         7 mg/m3           Workers         Dermal         106 mg/kg

#### Predicted no effect concentrations (PNECs)

Components	Туре	Route	Value	Form
2-pyrrolidone (CAS 616-45-5)	Not applicable	Freshwater	0.5 mg/l	
		Intermittent	0.5 mg/l	Releases
		Marine water	0.05 mg/l	
		Sediment	0.4205 mg/kg	Freshwater
		Soil	0.0612 mg/kg	
		STP	10 mg/l	Sewage Treatment Plant
Ethylene glycol (CAS 107-21-1)	Not applicable	Freshwater	10 mg/l	
		Intermittent	10 mg/l	Releases
		Marine water	1 mg/l	
		Sediment	37 mg/kg	Freshwater
		Sediment	3.7 mg/kg	Marine water
		Soil	1.53 mg/kg	
		STP	199.5 mg/l	Sewage Treatment Plant

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

UK EH40 WEL: Skin designation

Ethylene glycol (CAS 107-21-1)

Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering

Use in a well ventilated area.

controls

Individual protection measures, such as personal protective equipment

**General information** Use personal protective equipment to minimize exposure to skin and eye.

Eye/face protection Not available.

Skin protection

- Hand protection Recommended gloves: Nitrile 4 mil minimum thickness.

Other Not available.
 Respiratory protection Not available.
 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 Black.
Odor Not available.
Odor threshold Not available.

pH 7 - 7.4Melting point/freezing point Not available.

Initial boiling point and boiling

range

Flash point > 200.0 °F (> 93.3 °C) Closed Cup EPA Method 1020

Not determined

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 pressureNot available.Vapor densityNot available.

Solubility(ies)

Solubility (water) Soluble in water

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.Explosive propertiesNot available.Oxidizing propertiesNot available.

9.2. Other information

VOC < 578 g/l Estimated

# **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** Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon

decomposition products dioxide and/or low molecular weight hydrocarbons

# **SECTION 11: Toxicological information**

General information Not available.

Information on likely routes of exposure

**Inhalation** Inhalation may result in mild irritation to the respiratory system.

Skin contactMay cause sensitization by skin contact.Eye contactContact with eyes may result in mild irritation.IngestionIngestion is not a likely route of exposure.

Symptoms Not available.

11.1. 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)

<u>Acute</u>

Oral

LD50 Rat > 5000 mg/kg

Ethylene glycol (CAS 107-21-1)

Acute Dermal

LD50 Rabbit 9530 mg/kg

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Components **Species Test Results** 

Inhalation Aerosol

LC50 Rat > 2.5 mg/l, 6 Hours

Other

LD50 Rat 2800 mg/kg

Based on available data, the classification criteria are not met. Skin corrosion/irritation

Non irritant in rabbit (OECD 404)

Serious eye damage/eye

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

Not classified as an irritant according to, OECD 405.

Based on available data, the classification criteria are not met. Respiratory sensitization

Skin sensitization May cause sensitization by skin contact.

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

Specific target organ toxicity single exposure

Specific target organ toxicity -

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

repeated exposure

**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: Ecological information**

#### 12.1. Toxicity

**Product Species Test Results** 

C6602A

Aquatic

Acute

Fish LC50 Fathead minnow (Pimephales promelas) > 750 mg/l, 96 hours

Components **Test Results** Species

2-pyrrolidone (CAS 616-45-5)

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)

-0.852-pyrrolidone -1.36Ethylene glycol

Not available. **Bioconcentration factor (BCF)** Not available. 12.4. Mobility in soil

Not a PBT or vPvB substance or mixture. 12.5. Results of PBT

and vPvB assessment

12.6. Other adverse effects Not available

# **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Not available. Residual waste Contaminated packaging Not available Not available. EU waste code

### Disposal methods/information

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.

# **SECTION 14: Transport information**

DOT

Not regulated as dangerous goods.

**IATA** 

Not regulated as dangerous goods.

**IMDG** 

Not regulated as dangerous goods.

**ADR** 

Not regulated as dangerous goods.

**Further information** 

Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

# **SECTION 15: Regulatory information**

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **EU** regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Not listed.

#### **Authorizations**

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorization

Not listed.

#### Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not regulated.

# Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other 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.

#### 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).

**National regulations** 

Not available.

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.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure by ingestion.

H412 Harmful to aquatic life with long lasting effects.

**Revision information Training information** Disclaimer

This document has undergone significant changes and should be reviewed in its entirety.

Follow training instructions when handling this material.

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

# Safe Use of Mixture Information (SUMI)

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# Water Based Ink: WB01 \*English\*

#### Disclaimer

This SUMI is a generic document for communicating conditions of safe use of a product in response to the REACH obligation. This document relates only to conditions of safe use and is not specific to a product. By adding this SUMI to a specific product SDS, the importer/formulator declares that the mixture can safely be used following the instructions below. Following occupational health legislation, the employer of workers remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product. Derived No Effect Levels (DNEL) and Predicted No Effect Concentration (PNEC) values of substances derived from the Chemical Safety Assessment (CSA) will be given in section 8 of the SDS.

The REACH registration number(s), where applicable, completes an extended product SDS.

Operational conditions	
Maximum duration	Up to 8 hours per day
Frequency of exposure	< 240 days per year
Process conditions	Covers use at ambient temperatures.  Adequate ventilation should be provide for the areas where printing is performed. ANSI/ASHRAE Standard 62.1-2013 provides
	guidelines to ensure acceptable air quality in the workspace.
	Avoid direct contact.
	Regular cleaning of equipment and work area.
	Supervision in place to check that Risk Management Measures are in place are being correctly used and Operational Conditions
	followed.
Risk management measures	
Conditions and measures	Wear safety glasses with side shields (or goggles), if splashing is possible.

# Conditions and measures related to Personal Protection Equipment, hygiene and health evaluation

Wear appropriate chemical resistent gloves: see section 8 of the SDS.

Wear appropriate chemical resistent clothing.

In case of inadequate ventilation wear respiratory protection.

Eye wash fountain and emergency showers are recommended.

Avoid breathing mist/vapours.

Avoid contact with skin, eyes and clothing.

Training of workers in relation to proper use and maintenance of all Personal protection equipment (PPE) must be ensured.









### Good practice advice

Use personal protective equipment as required.

Wash hands before breaks and after work.

Keep good industrial hygiene and safety practice.

Use only with adequate ventilation.

Do no eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.

Store at room temperature.





### Environmental measures

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 appropriately licenced waste contractor.

# Use descriptors

IS-Use at industrial sites

PW-Widespread use by professional workers

SU7-Printing and reproduction media

PC18-Inks and Toners

PROC1-Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2-Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC8a-Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b-Transfer of substance or mixture (charging and discharging) at dedicated facilities

ERC5-Use at industrial site leading to inclusion into/onto article

ERC8c-Widespread use leading to inclusion into/onto article (indoor)

#### Additional information on product composition

In section 2 of the SDS as well as on the label, the classification of the mixture is provided.

Most of the water based inks are "not classified".

The classification of the mixture is based on the individuel ingredients and their concentration within the mixture.

All ingredients contributing to the classification are stated in Section 3 of the SDS.

Relevant limit values of ingredients on which the exposure assessment is based, are listed in section 8 of the SDS.

The product may contain sensitizing ingredients that may cause allergic reaction to certain people.

Section 2 of the SDS states these ingredients where applicable.