



SAFETY DATA SHEET

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

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. ***

1.1. Product identifier

glossary_trade_name C4903 Series
Identification number -
Registration number -
Synonyms None.
Issue date 28-Sep-2018
Version number 05
Revision date 18-Jul-2020
Supersedes date 27-Jan-2020

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

Identified uses Inkjet printing
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

HP Deutschland GmbH
Schickardstrasse 32
71034 Böblingen
Germany

Telephone 07031 140

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 +49 (0) 89 1 92 40

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

This mixture does not meet the criteria for classification as hazardous according to Regulation (EC) 1272/2008.

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.

2.2. Label elements

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

Hazard pictograms None.
Signal word None.
Hazard statements The substance does not meet the criteria for classification.

Precautionary statements

Prevention Not available.
Response Not available.
Storage Not available.
Disposal Not available.

Supplemental label information Contains 1,2-Benzisothiazolin-3-one and 2,4,7,9-Tetramethyl-5-decyne-4,7-diol. May produce an allergic reaction.

2.3. Other hazards 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. None of the components present in this formulation at concentrations equal to or greater than 0.1% are listed by EU, MAK, IARC, NTP or OSHA.

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

| Chemical name | % | CAS-No. / EC No. | REACH Registration No. | Index No. | Notes |
|---------------------------------------|---|------------------------|------------------------|--------------|-------|
| Water | 75-85 | 7732-18-5 231-791-2 | - | - | |
| Classification: | - | | | | |
| 2-pyrrolidone | <3 | 616-45-5 210-483-1 | 01-2119475471-37-XXXX | - | |
| Classification: | Eye Irrit. 2;H319, Repr. 1B;H360 | | | | |
| 2,4,7,9-Tetramethyl-5-decyne-4,7-diol | <1 | 126-86-3 204-809-1 | 01-2119954390-39-XXXX | - | |
| Classification: | Skin Sens. 1;H317, Eye Dam. 1;H318, Aquatic Chronic 3;H412 | | | | |
| 1,2-Benzisothiazolin-3-one | <0.05 | 2634-33-5 220-120-9 | - | 613-088-00-6 | |
| Classification: | Acute Tox. 4;H302, Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Dam. 1;H318, Aquatic Acute 1;H400 | | | | |

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

General information Wash affected areas thoroughly with mild soap and water.

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.
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 Not available.

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 personnel Wear appropriate personal protective equipment.

For emergency responders Not available.

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

6.3. Methods and material 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.

6.4. Reference to other sections Not available.

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.

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No exposure limits noted for ingredient(s).

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

Recommended monitoring procedures Not available.

Derived no effect levels (DNELs)

| Components | Type | Route | Value | Form | |
|------------------------------|-----------|------------|------------------------|---------------------------|--|
| 2-pyrrolidone (CAS 616-45-5) | Consumers | Dermal | 6 mg/kg bw/d | Systemic long term | |
| | | Dermal | 167 mg/kg bw/d | Systemic acute short term | |
| | | Inhalation | 17.1 mg/m ³ | 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/m ³ | Systemic long term | |
| | | | | | |
| | | | | | |

Predicted no effect concentrations (PNECs)

| Components | Type | 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 |
| | | | | |

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

8.2. Exposure controls

Appropriate engineering controls Use in a well ventilated area.

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** Not available.

- **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

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|--|--|
| Physical state | Liquid. |
| Form | Not available. |
| Color | Cyan |
| Odor | Not available. |
| Odor threshold | Not available. |
| pH | 8.5 - 9.5 |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Flash point | > 212.0 °F (> 100.0 °C) Pensky-Martens Closed Cup US EPA Method 1020 |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Vapor pressure | Not available. |
| Vapor density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | 3.2 - 3.3 cP |
| Explosive properties | Not available. |
| Oxidizing properties | Not available. |

9.2. Other information

| | |
|-----|-----------|
| VOC | < 291 g/L |
|-----|-----------|

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 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

| | |
|--|--|
| General information | Not available. |
| Information on likely routes of exposure | |
| Inhalation | Under normal conditions of intended use, this material is not expected to be an inhalation hazard. |
| Skin contact | Contact with skin may result in mild irritation. |
| Eye contact | Contact with eyes may result in mild irritation. |
| Ingestion | Health injuries are not known or expected under normal use. |
| Symptoms | Not available. |

11.1. Information on toxicological effects

Material name: C4903 Series

12092 Version #: 05 Revision date: 18-Jul-2020 Issue date: 28-Sep-2018

SDS GERMANY

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| | | | |
|---|--|---------------------|--|
| Acute toxicity | Based on available data, the classification criteria are not met. | | |
| Components | Species | Test Results | |
| 2-pyrrolidone (CAS 616-45-5) | | | |
| Acute | | | |
| Oral | | | |
| LD50 | Rat | > 5000 mg/kg | |
| Skin corrosion/irritation | Non irritant in rabbit (OECD 404) Based on available data, the classification criteria are not met. | | |
| Serious eye damage/eye irritation | Not classified as an irritant according to, OECD 405. 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. | | |
| 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. | | |
| | 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. | | |
| 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 | This product is highly soluble in water. | | |
| Components | Species | Test Results | |
| 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) | | | |
| 2-pyrrolidone | | -0.85 | |
| Bioconcentration factor (BCF) | Not available. | | |
| 12.4. Mobility in soil | Not available. | | |
| 12.5. Results of PBT and vPvB assessment | Not a PBT or vPvB substance or mixture. | | |
| 12.6. Other adverse effects | Not available. | | |

SECTION 13: Disposal considerations

| | | | |
|--------------------------------------|----------------|--|--|
| 13.1. Waste treatment methods | | | |
| Residual waste | Not available. | | |
| Contaminated packaging | Not available. | | |
| EU waste code | Not available. | | |

Disposal methods/information Do not allow this material to drain into sewers/water supplies.
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

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>.

SECTION 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.

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 and II, as amended

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

Not listed.

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

Not listed.

- 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, as amended
Not listed.
- Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
Not listed.

Authorizations

- Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
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, as amended
Not listed.

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.

Water hazard class

AwSV

WGK1

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

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H360 May damage fertility or the unborn child.
- H400 Very toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

Revision information

1. Product and Company Identification: Alternate Trade Names
SECTION 2: Hazards identification: Classification according to Regulation (EC) No 1272/2008
SECTION 3: Composition/information on ingredients: Composition comments
SECTION 11: Toxicological information: Reproductivity

Training information

Follow training instructions when handling this material.

Disclaimer

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. 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.

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 related to Personal Protection Equipment, hygiene and health evaluation | <p>Wear safety glasses with side shields (or goggles), if splashing is possible. Wear appropriate chemical resistant gloves: see section 8 of the SDS. Wear appropriate chemical resistant 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.</p> <div style="display: flex; justify-content: space-around; align-items: center;">     </div> |
|--|---|

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.