

SAFETY DATA SHEET

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

| 1.1. Product identifier | | |
|---|---|--|
| Trade name or designation of the mixture | C4941Series | |
| Registration number | - | |
| Synonyms | None. | |
| Issue date | 07-May-2015 | |
| Version number | 05 | |
| Revision date | 16-Mar-2019 | |
| Supersedes date | 02-Jun-2016 | |
| 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 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

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

2.2. Label elements

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

| Contains: | 2-pyrrolidone, Water |
|--------------------------------|--|
| Hazard pictograms | None. |
| Signal word | None. |
| Hazard statements | The mixture 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. May produce an allergic reaction. |
| 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. |

| SECTION 3: Composition/information on ingredients | | | | | |
|---|-------------------|------------------------|--------------------------------|-----------------------|-------|
| 3.2. Mixtures | | | | | |
| General information | | | | | |
| Chemical name | % | CAS-No. / EC No. | REACH Registration No. | Index No. | Notes |
| Water | 85-95 | 7732-18-5 | - | - | |
| | | 231-791-2 | | | |
| Classification: | - | | | | |
| 2-pyrrolidone | <5 | 616-45-5 | 01-2119475471-37-XXXX | _ | |
| | | 210-483-1 | | | |
| Classification: | Eye Irrit. 2;H319 | | | | |
| Composition comments | This ink supply c | contains an aqueous ir | nk formulation. | | |
| SECTION 4: First aid | measures | | | | |
| General information | Not available. | | | | |
| 4.1. Description of first aid | d measures | | | | |
| Inhalation | Remove to fresh | air. If symptoms pers | ist, get medical attention. | | |
| Skin contact | Wash affected a | | nild soap and water. Get medic | al attention if irrit | ation |

| okin contact | 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 | Not available. |

and special treatment needed

| 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 an | d storage | | | | |
|---|--|---|--|--|---|
| 7.1. Precautions for safe handling | Avoid contact with sl | Avoid contact with skin, eyes and clothing. | | | |
| 7.2. Conditions for safe storage, including any incompatibilities | Keep out of the reac | Keep out of the reach of children. Keep away from excessive heat or cold. | | | |
| 7.3. Specific end use(s) | Not available. | Not available. | | | |
| SECTION 8: Exposure co | ontrols/personal p | rotection | | | |
| 8.1. Control parameters | | | | | |
| Occupational exposure limits | No exposure limits n | oted for ingredi | ent(s). | | |
| Biological limit values | No biological exposu | - | | ent(s). | |
| Recommended monitoring procedures | Not available. | | Ū | () | |
| Derived no effect levels (DNEL | s) | | | | |
| Components | Туре | | Route | Value | Form |
| 2-pyrrolidone (CAS 616-45-5 | i) Consu Worke | | Dermal Dermal Inhalation Oral Oral Dermal Dermal Inhalation | 6 mg/kg bw/d 167 mg/kg bw/d 17.1 mg/m3 5.2 mg/kg bw/d 33.3 mg/kg bw/d 277 mg/kg bw/d 10 mg/kg bw/d 57.8 mg/m3 | Systemic long term Systemic acute short term Systemic long term Systemic long term Systemic acute short term Systemic acute short term Systemic long term Systemic long term |
| | | | initialation | er ie ing/ine | e yetenne long tenn |
| Predicted no effect concentrati | | | Devite | Value | F a <i>m</i> |
| Components | Туре | | Route | | Form |
| 2-pyrrolidone (CAS 616-45-5 |) Not aț | oplicable | Freshwater Intermittent Marine water Sediment Soil STP | 0.5 mg/l 0.5 mg/l 0.05 mg/l 0.4205 mg/kg 0.0612 mg/kg 10 mg/l | Releases Freshwater Sewage Treatment Plant |
| Exposure guidelines | Exposure limits have | e not been estal | blished for this | product. | |
| 8.2. Exposure controls | | | | | |
| Appropriate engineering controls | Use in a well ventilat Provide adequate ve | | | | |
| Individual protection measures | , such as personal pro | otective equip | ment | | |
| General information | Use personal protec | tive equipment | to minimize exp | posure to skin and e | eye. |
| Eye/face protection Skin protection | Not required under in | ntended use. | | | |
| - Hand protection | Not available. | | | | |
| - Other | Protected gloves not | t required unde | r intended use. | | |
| Respiratory protection | For use other than ir be required. | ntended use (su | ich as in the ev | ent of a large spill), | goggles and respirators may |
| | Not available. | | | | |
| Thermal hazards | Handle in accordance with good industrial hygiene and safety practice. | | | | |
| Thermal hazards Hygiene measures | Handle in accordance | ce with good inc | Not available. | | |

| Appearance | |
|----------------|----------------|
| Physical state | Liquid. |
| Form | Not available. |
| Color | Cyan |
| Odor | Not available. |
| Odor threshold | Not available. |
| рН | 7.8 - 8.4 |
| | |

| Melting point/freezing point | Not available. | |
|--|---|--|
| Initial boiling point and boiling | Not determined | |
| range | > 200 0 °E (> 02 2 °C) Benely Martene Closed Cup | |
| Flash point | > 200.0 °F (> 93.3 °C) Pensky-Martens Closed Cup | |
| Evaporation rate | Not determined Not available. | |
| Flammability (solid, gas) | | |
| Upper/lower flammability or exp | Not determined | |
| Flammability limit - lower (%) | | |
| Flammability limit - upper (%) | Not available. | |
| Vapor pressure | Not determined | |
| Vapor density | Not available. | |
| 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 | |
| Explosive properties | Not available. | |
| Oxidizing properties | Not determined | |
| 9.2. Other information | | |
| VOC | < 40 g/l | |
| SECTION 10: Stability and | d 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: Toxicologic | al information | |
| General information | Not available. | |
| Information on likely routes of e | exposure | |
| Inhalation | Not available. | |
| Skin contact | Not available. | |
| Eye contact | Not available. | |
| Ingestion | Not available. | |
| Symptoms | Not available. | |
| 11.1. Information on toxicologic | al effects | |
| 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 | Based on available data, the classification criteria are not met. | |
| Serious eye damage/eye | Based on available data, the classification criteria are not met. | |
| irritation | Not classified as an irritant according to, OECD 405. | |
| 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. | |
| | | |

Material name: C4941Series

9381 Version #: 05 Revision date: 16-Mar-2019 Issue date: 07-May-2015

| Carcinogenicity | Based on available data, the classification criteria are not met. |
|---|---|
| Reproductive toxicity | Based on available data, the classification criteria are not met. |
| 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

| 12.1. LOXICITY | | | |
|---|------------------|--|--|
| Product | | Species | Test Results |
| C4941Series | | | |
| Aquatic | | | |
| Acute | | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | > 750 mg/l, 96 hours |
| 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 v | PvB substance or mixture. | |
| 12.6. Other adverse effects | Not available. | | |
| SECTION 13: Disposal co | nsiderations | | |
| 13.1. Waste treatment methods | | | |
| Residual waste | Not available. | | |
| Contaminated packaging | Not available. | | |
| EU waste code | Not available. | | |
| Disposal methods/information | | nis material to drain into sewers/water suppose ste material according to Local, State, Fed | |
| | of HP original i | artners (trademark) supplies recycling prog inkjet and LaserJet supplies. For more in your location, please visit http://www.hp.cc | formation and to determine if this service |

SECTION 14: Transport information

DOT

Not regulated as dangerous goods.

ΙΑΤΑ

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 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 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. All chemical substances in this HP product have been notified or are exempt from notification Other regulations 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 See attached SUMI or GEIS document, if applicable.

assessment

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 | H319 Causes serious eye irritation. |
| Revision information | Composition / Information on Ingredients: Ingredients SECTION 11: Toxicological information: Eye contact SECTION 15: Regulatory information: Other information SECTION 15: Regulatory information: National regulations SECTION 15: Regulatory information: Other regulations SECTION 16: Other information: Disclaimer SECTION 16: Other information: Information on evaluation method leading to the classification of mixture SECTION 16: Other information: References SECTION 16: Other information: Training information HazReg Data: Europe - EU |
| Training information | Follow training instructions when handling this material. |
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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 |
| | |

| 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 |
| | |
| | |
| | |

Recommended

Recommended Exposure Limit

REC

REL

Safe Use of Mixture Information (SUMI)

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.

| , , , | 3, where upplicable, completes an extended product 3D3. |
|---|--|
| 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. |
| related to Personal Protection | |
| | Wear appropriate chemical resistent gloves: see section 8 of the SDS. |
| Equipment, hygiene and | Wear appropriate chemical resistent clothing. |
| health evaluation | 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 equipme | ent as required. |
| Wash hands before breaks and a | after work. |
| Keep good industrial hygiene and | d safety practice. |
| Use only with adequate ventilati | |
| Do no eat, drink or smoke when | |
| Wash contaminated clothing bef | |
| Store at room temperature. | |
| Environmental measures | |
| | in intercourse/unitercourselies |
| Do not allow this material to dra | |
| - | ding to Local, State, Federal and Provincial Environmental Regulations. |
| | ith appropriately licenced waste contractor. |
| Use descriptors | |
| IS-Use at industrial sites | |
| PW-Widespread use by profession | |
| SU7-Printing and reproduction m | nedia |
| PC18-Inks and Toners | |
| PROC1-Chemical production or r | refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. |
| PROC2-Chemical production or r | refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions |
| condition PROC8a-Transfer of substance o | tion in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment r mixture (charging and discharging) at non-dedicated facilities r mixture (charging and discharging) at dedicated facilities |
| ERC5-Use at industrial site leading | |
| | io inclusion into/onto article (indoor) |
| Additional information on prod | |
| | s on the label, the classification of the mixture is provided. |
| Most of the water based inks are | |
| | |
| | is based on the individuel ingredients and their concentration within the mixture. |
| | ne classification are stated in Section 3 of the SDS. |
| | nts on which the exposure assessment is based, are listed in section 8 of the SDS. |
| | zing ingredients that may cause allergic reaction to certain people. |
| Section 2 of the SDS states these | |
| | WB01 English.pdf |