



Safety Data Sheet

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CN668Series[C][2]-SDS_SERBIA-English-42.pdf

CN668Series[B][2]-SDS_SERBIA-English-42.pdf



SAFETY DATA SHEET

Section 1. Identification of the chemical and information on the person placing the chemical on the market

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. Chemical identification

CN668Series[C][2]

Other means of identification None.

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 Computing and Printing Ltd. Belgrade
Omladinskih Brigada 90b, 1st Floor (Module N.)
Belgrade
Serbia 11070

Telephone +381-11-2014283

HP Inc. health effect line

(Toll-free within 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 1-760-710-0048

Section 2. Hazards identification

2.1. Classification of the substance or mixture

Physical hazards Not classified.

Health hazards Reproductive toxicity (fertility, the unborn child) Category 1B

Environmental hazards Not classified.

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements

H360 May damage fertility or the unborn child.

Precautionary statements

Prevention

P280 Wear protective gloves/protective clothing/eye protection.

P202 Do not handle until all safety precautions have been read and understood.

P201 Obtain special instructions before use.

Response

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage

P405 Store locked up.

Disposal

P501

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

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.

Supplemental information

Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.

Section 3. Composition/information on ingredients**3.2. Mixtures****General information**

| Chemical name | % | CAS-No. / EC No. | REACH Registration No. | Index No. | Notes |
|----------------------------|----------------------------------|------------------------|------------------------|--------------|-------|
| Water | 65-75 | 7732-18-5 231-791-2 | - | - | |
| Classification: | - | | | | |
| 2-pyrrolidone | <20 | 616-45-5 210-483-1 | 01-2119475471-37-XXXX | - | |
| Classification: | Eye Irrit. 2;H319, Repr. 1B;H360 | | | | |
| 1,2-Benzisothiazolin-3-one | <0.05 | 2634-33-5 220-120-9 | - | 613-088-00-6 | |
| Classification: | - | | | | |

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**4.1. Description of first aid measures****Inhalation**

If symptoms persist, get medical attention. Move to fresh air.

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.

General information

Not available.

Section 5. Fire fighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Dry chemical, CO₂, water spray or regular foam. For small (incipient) fires, use media such as foam, sand, dry chemical, or carbon dioxide.
For large fires use very large (flooding) quantities of water and/or foam, applied as a mist or spray.

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.

General fire hazards

Not available.

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 For waste disposal, see section 13 of the SDS.

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 and 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 |
| | Workers | Oral | 33.3 mg/kg bw/d | Systemic acute short term |
| | | 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** Not available.
- Eye/face protection** Not available.
- Skin protection**
- **Hand protection** Not available.
 - **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.

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 | Cyan |
| Odor | Not available. |
| Odor threshold | Not available. |
| pH | 9 |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Flash point | > 230.0 °F (> 110.0 °C) Pensky-Martens Closed Cup |
| 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 | Not available. |
| Explosive properties | Not available. |
| Oxidizing properties | Not determined |

9.2. Other information

| | |
|------------------|---------------------------------------|
| Percent volatile | 16 % estimated |
| Specific gravity | 1 k/L |
| VOC | 246 g/l (Determined by EPA Method 24) |

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

| | | | |
|---|---|---------------------|--|
| 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 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. Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium) | | |
| Carcinogenicity | Based on available data, the classification criteria are not met. | | |
| 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 | 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. Ecotoxicological information

| | | | |
|--|---|--------------------------------------|----------------------|
| 12.1. Toxicity | No information available. | | |
| Product | Species | Test Results | |
| CN668Series[C][2] | | | |
| Aquatic | | | |
| <i>Acute</i> | | | |
| 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 vPvB substance or mixture. | | |
| 12.6. Other adverse effects | Not available. | | |

Section 13. Disposal

| | | | |
|--------------------------------------|----------------|--|--|
| 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. Ensure collection and disposal with an appropriately licensed waste contractor. |

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

Restrictions and prohibitions on manufacture, placing on the market and use of chemicals (Regulation 90/2013, Annex 1, Part 1, as amended)

Not listed.

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).

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.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

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

H319 Causes serious eye irritation.
H360 May damage fertility or the unborn child.

Revision information

1. Product and Company Identification: Alternate Trade Names
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 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 |



SAFETY DATA SHEET

Section 1. Identification of the chemical and information on the person placing the chemical on the market

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. Chemical identification

CN668Series[B][2]

Other means of identification None.

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

Identified uses Inkjet printing. For use only in inkjet printing

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

HP Computing and Printing Ltd. Belgrade
Omladinskih Brigada 90b, 1st Floor (Module N.)
Belgrade
Serbia 11070

Telephone +381-11-2014283

HP Inc. health effect line

(Toll-free within 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 1-760-710-0048

Section 2. Hazards identification

2.1. Classification of the substance or mixture

Physical hazards Not classified.

Health hazards Reproductive toxicity (fertility, the unborn child) Category 1B

Environmental hazards Not classified.

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements

H360 May damage fertility or the unborn child.

Precautionary statements

Prevention

P280 Wear protective gloves/protective clothing/eye protection.

P202 Do not handle until all safety precautions have been read and understood.

P201 Obtain special instructions before use.

Response

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage

P405 Store locked up.

Disposal

P501

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

2.3. Other hazards

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk. None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

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

Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.

Section 3. Composition/information on ingredients

3.2. Mixtures

General information

| Chemical name | % | CAS-No. / EC No. | REACH Registration No. | Index No. | Notes |
|----------------------------|----------------------------------|------------------------|------------------------|--------------|-------|
| Water | 60-70 | 7732-18-5 231-791-2 | - | - | |
| Classification: | - | | | | |
| 2-pyrrolidone | <20 | 616-45-5 210-483-1 | 01-2119475471-37-XXXX | - | |
| Classification: | Eye Irrit. 2;H319, Repr. 1B;H360 | | | | |
| 1,2-Benzisothiazolin-3-one | <0.05 | 2634-33-5 220-120-9 | - | 613-088-00-6 | |
| Classification: | - | | | | |

Composition comments

This ink supply contains an aqueous ink formulation.

Carbon black is present only in a bound form in this preparation.

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

4.1. Description of first aid measures

Inhalation

Remove 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.

General information

Not available.

Section 5. Fire fighting measures

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. |
| General fire hazards | Not available. |

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 For waste disposal, see section 13 of the SDS.

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 and 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 |
| | Workers | Oral | 5.2 mg/kg bw/d | Systemic long term |
| | | Oral | 33.3 mg/kg bw/d | Systemic acute short term |
| | | 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 Not available.

Individual protection measures, such as personal protective equipment

General information Not available.

Eye/face protection Not available.

Skin protection

- Hand protection Not available.

- 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.

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 | 9 |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Flash point | > 230.0 °F (> 110.0 °C) Pensky-Martens Closed Cup |
| 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 | Not available. |
| Explosive properties | Not available. |
| Oxidizing properties | Not determined |
| 9.2. Other information | |
| Percent volatile | 16 % estimated |
| Specific gravity | 1 k/L |
| VOC | 256 g/l (Determined by EPA Method 24) |

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 | None known. |
| 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., fluorinated hydrocarbons and hydrogen fluoride. |

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

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 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. Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium) | |
| Carcinogenicity | Based on available data, the classification criteria are not met. Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B) and by the State of California under Proposition 65. In their evaluations of carbon black, both organizations indicate that exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint. Carbon black is present only in a bound form in this preparation. | |
| 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 | 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. Ecotoxicological information

12.1. Toxicity No information available.

| Product | Species | Test Results |
|--|----------------|---|
| CN668Series[B][2] | | |
| 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 vPvB substance or mixture.

12.6. Other adverse effects Not available.

Section 13. Disposal

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.

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

Restrictions and prohibitions on manufacture, placing on the market and use of chemicals (Regulation 90/2013, Annex 1, Part 1, as amended)

Not listed.

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).

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.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

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

H319 Causes serious eye irritation.
H360 May damage fertility or the unborn child.

Revision information

1. Product and Company Identification: Alternate Trade Names
Section 3. Composition/information on ingredients: Composition comments
Section 11. Toxicological information: Reproductivity

Training information

Follow training instructions when handling this material.

Disclaimer

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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 |