MATERIAL SAFETY DATA SHEET

1. Chemical product and company identification

Important information *** This Safety Data Sheet is only authorised for use by HP for HP Original products. Any unauthorised use of this Safety Data Sheet is strictly prohibited and may result in legal action being taken by HP. ***

A. Product name 4UV62Series

Other means of identification Not available.

B. Recommended use and Limitations on use

Recommended use Inkjet printing

C. Supplier information

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2. Hazards identification

A. Hazard category/Classification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.

B. Warning label items including precautionary statement

• Pictogram None.
• Signal word None.
• Hazard statement None.
• Precautionary statement None.

C. Other hazards not included in the hazard category criteria (e.g. dust explosion hazard) Titanium dioxide is classified by IARC as a Group 2B carcinogen, meaning there is inadequate evidence in humans for the carcinogenicity of titanium dioxide, but there is sufficient evidence in experimental animals for the carcinogenicity of titanium dioxide.

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 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.

3. Composition/information on ingredients

Chemical identity	Common and alternative names	CAS number	ID number	Content in percent (%)
Water		7732-18-5	KE-35400	45-70
1,2-butanediol		584-03-2	KE-03786	<20

Chemical identity	Common and alternative names	CAS number	ID number	Content in percent (%)
Titanium dioxide		13463-67-7	KE-33900	<10
2-pyrrolidone		616-45-5	KE-29978	<3

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.

4. First aid measures

A. In case of 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.

B. In case of skin contact Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.

C. In case of inhalation Move to fresh air. If symptoms persist, get medical attention.

D. In case of swallowing If ingestion of a large amount does occur, seek medical attention.

E. Note to physician Not available.

5. Fire-fighting measures

A. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing media None known.

B. Specific hazards arising from the chemical (example: hazardous combustion products) Not available.

C. Specific methods of fire-fighting Not available.

Specific methods None established.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency measures Wear appropriate personal protective equipment.

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

C. Methods and materials for containment and cleaning up Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

7. Handling and storage

A. Precautions for safe handling Avoid contact with skin, eyes and clothing.

B. Conditions for safe storage (including any incompatibilities) Keep out of the reach of children. Keep away from excessive heat or cold.

8. Exposure controls/personal protection

A. Exposure limit values, biological limit values, etc

Korea. OELs. Standards for Exposure to Chemical Substances and Physically Hazardous Factors

Components	Type	Value
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3

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

Exposure guidelines	Exposure limits have not been established for this product.
B. Appropriate engineering controls	Use in a well ventilated area.

C. Personal protective equipment

• Respiratory protection	Not available.
• Eye protection	Not available.
• Hand protection	Not available.
• Body protection	Use personal protective equipment to minimize exposure to skin and eye.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Under extreme work place conditions, ink vapors may condense outside of the printing system. The Waste Profile Datasheet for your printer at https://hplatexknowledgecenter.com/applications/wasteprofiles contains more information on how to properly handle and dispose of the condensate.

9. Physical and chemical properties

A. Appearance

Physical state	Liquid.
Form	Not available.
Color	White.
B. Odor	Not available.
C. Odor threshold	Not available.
D. pH	7.4
E. Melting point/freezing point	Not available.
F. Boiling point, initial boiling point, and boiling range	Not available.
G. Flash point	295.0 °F (146.1 °C)
H. Evaporation rate	Not available.
I. Flammability (solid, gas)	Not available.

J. Upper/lower limit on flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
K. Vapor pressure	Not available.

L. Solubility

Solubility (water)	Not available.
M. Vapor density	Not available.
N. Specific gravity	Not available.
O. n-octanol/water partition coefficient	Not available.
P. Auto-ignition temperature	Not available.
Q. Decomposition temperature	Not available.
R. Viscosity	Not available.
S. Molecular weight	Not available.

Other data

Oxidizing properties	Not determined
VOC	< 221 g/l EPA method 24

10. Stability and reactivity

A. Stability and hazardous reaction potential

Stability	Stable under recommended storage conditions.
Hazardous reaction potential	Will not occur.

B. Conditions to avoid (e.g. static discharge, shock or vibration, etc)	Not available.
C. Incompatible materials	Incompatible with strong bases and oxidizing agents.
D. Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

11. Toxicological information

A. Information on likely routes of exposure

• Respiratory organs	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
• Skin	Contact with skin may result in mild irritation.
• Eyes	Contact with eyes may result in mild irritation.
• Mouth	Health injuries are not known or expected under normal use.

B. Information on health hazards

• Acute toxicity (list all possible routes of exposure)	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

• Corrosivity or irritation to the skin	Based on available data, the classification criteria are not met.
• Serious eye damage/eye irritation	Not classified as an irritant according to, OECD 405.
• Respiratory sensitization	Based on available data, the classification criteria are not met.
• Skin sensitization	Non-sensitizer- Local Lymph Node Assay (OECD 429).
• Carcinogenic properties /Carcinogenicity	Based on available data, the classification criteria are not met.

IARC Monographs. Overall Evaluation of Carcinogenicity

Titanium dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.

• Mutagenic properties /Mutagenicity	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.

12. Ecological information

A. Ecotoxicity

Components		Species	Test Results
2-pyrrolidone (CAS 616-45-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours

B. Persistence/degradability	Not available.

C. Bioaccumulative potential

Octanol/water partition coefficient log Kow

2-pyrrolidone	-0.85

D. Mobility in soil	Not available.

E. Other adverse effects	Not available.

13. Disposal considerations

A. Method of disposal	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. 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.
B. Disposal considerations (including disposal of contaminated containers or packaging)	Not available.

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.

15. Regulatory information

A. Restrictions under the Industrial Safety and Health Law

Harmful Substances Prohibited from Manufacturing

Not regulated.

Harmful Substances Requiring Permission for Manufacture or Use

Not regulated.

Controlled Hazardous Substances

Titanium dioxide (CAS 13463-67-7)

Harmful Substances Requiring Special Medical Examination

Not regulated.

Workplace Environmental Monitoring Harmful Materials

Titanium dioxide (CAS 13463-67-7)

Occupational Exposure Limit

Titanium dioxide (CAS 13463-67-7)

B. Restrictions under the Chemicals Control Law (Previously Toxic Chemicals Control Law)

Accidental Release Prevention Substances

Not regulated.

Act on the Registration and Evaluation of Chemicals

Banned Toxic Chemicals

Not regulated.

Designated Existing Chemicals Subject to Registration (PEC) (MoE No. 2015-92)

Not listed.

Restricted Chemical Substances

Not regulated.

Toxic Chemicals

Not regulated.

C. Restrictions under the Dangerous Substance Safety Management Act

D. Restrictions under the Wastes Control Act

Halogenated Materials in Waste Organic Solvents

Not regulated.

Hazardous Substances

Not regulated.

E. Restrictions under other foreign or domestic laws

Clean Air Conservation Act

Air Pollutants

Not regulated.

Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides (Rules on PIC, MoE No. 2014-252, Dec. 31, 2014; Standards for Pesticides, RDA No. 2014-26), as amended

Not listed.

Specific Air Pollutants

Not regulated.

Regulatory information	The components of this product are reported in the following inventories: United States of America, European Union, Switzerland, Canada, Australia and New Zealand.

16. Other information

A. Source of information	Not available.
B. Issue date	27-Jan-2021
C. Number of revisions and date of most recent revision	09-Apr-2021 (02 revision)
D. Other	Not available.

Disclaimer

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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.

Revision information

1. Product and Company Identification: EU Poison Center
3. Composition / Information on Ingredients: Ingredients

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