DTF TEXTILE PIGMENT INK – WHITE

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER

- Product Name: Printer Ink (White)
- Product Model: DTFINK5605W
- CAS No.: Not applicable
- EC No.: Not applicable
- Molecular Formula: Not applicable
- REACH Registration Number: --
- UFI: No information available

RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

- Relevant identified uses: For inkjet printing
- Uses advised against: Please consult the manufacturer

DETAILS OF THE SUPPLIER OF THE MATERIAL SAFETY DATA SHEET

- Company name: Haining Comax New Material Co., Ltd.
- Address: Room 912 No.3 Building Shangdong Business Center Haizhou District Haining Zhejiang China
- Postcode: 314400
- Telephone number: +86-573-80776996
- Fax number: +86-573-80776998
- Email: contact@hncomax.com

EMERGENCY TELEPHONE NUMBER

- Emergency telephone number: +86-158-5832-2153
- Opening hours: 24 hours

SECTION 2 - HAZARDS IDENTIFICATION

CLP CLASSIFICATION ACCORDING TO REGULATION (EC) NO. 1272/2008

- According to Regulation (EC) No 1272/2008 and its amendments. It is not classified as a dangerous substance.

GHS LABEL ELEMENTS

- Hazard pictograms: Not applicable
- Signal word: Not applicable

HAZARD STATEMENTS

- Hazard statements: Not applicable

PRECAUTIONARY STATEMENTS

- Prevention: Not applicable
- Response: Not applicable
- Storage: Not applicable
- Disposal: Not applicable

OTHER HAZARDS

- Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Glycerol	Not PBT/vPvB
Titanium dioxide	Not applicable

- Results of endocrine disrupting properties assessment: Insufficient information, temporarily unable to evaluate
- Other: Not applicable

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE

☐Pure ☑Admixture

Component	Composition	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific Conc. Limits, M-factors
Water CAS:7732-18-5 | EC:231-791-2 Index No.: -	80%	Not Classified	--
Glycerol CAS:56-81-5 | EC:200-289-5 Index No.: -	15%	Not Classified	--
Titanium dioxide CAS:13463-67-7 | EC:236-675-5 Index No.:022-006-00-2	5%	Not Classified	--

SECTION 4 - FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

- General advice: Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
- Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if you feel uncomfortable.
- Skin contact: No harm in general situation. First aid is not needed.
- Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
- Inhalation: Move the victim into fresh air. If breathing is difficult, give oxygen and consult a physician immediately.

- Protecting of first aiders: Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

THE MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED

- Please see section 11.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- Treat symptomatically.
- Symptoms may be delayed.

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Suitable extinguishing media: Misty water, alcohol-resistant foam, dry powder, carbon dioxide, and sand.
- Unsuitable extinguishing media: Do not use a solid water stream, which may lead to liquid splash and hurt firefighters.

SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- Development of hazardous combustion gases or vapor is possible in the event of a fire.
- It is not considered a significant fire risk. However, containers may burn.

ADVICE FOR FIREFIGHTERS

- As in any fire, wear self-contained breathing apparatus （ MSHA/NIOSH approved or equivalent) and full protective gear..
- Fight fire from a safe distance, with adequate cover.
- Prevent fire extinguishing water from contaminating surface water or the groundwater system.

SECTION 6 –ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

- Use personal protective equipment; do not breathe gas/mist/vapor/spray.
- Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
- Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

ENVIRONMENTAL PRECAUTIONS

- Prevent further leakage or spillage if it is safe to do so.
- Discharge into the environment must be avoided.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

- Cut off the source of the leak as much as possible.
- Keep leaks in a ventilated place.
- Absorb spilled material in dry sand or inert absorbent. In case of a large spillage, contain a spill by bunding.
- Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

- Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

- Protective measures
  1. Handling is performed in a well-ventilated place.
  2. Avoid contact with eyes.
  3. Operators must be specially trained to abide strictly by the operating procedures.
  4. It is recommended that operators wear self-priming filter dust masks and chemical safety glasses.
- Measures to prevent fire: Keep away from heat/sparks/open flames/ hot surfaces.
- Measures to prevent aerosol and dust generation: Not applicable.
- Advice on general occupational hygiene
  1. Wash hands and face after using the substances.
  2. Replace the contaminated clothing immediately.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Keep containers tightly closed.
- Keep containers in a dry, cool, and well-ventilated place.
- Keep away from heat/sparks/open flames/hot surfaces.
- Store away from incompatible materials and foodstuff containers.
- Mechanical equipment and tools prone to sparks are forbidden.
- The storage area should be equipped with leakage emergency treatment equipment and suitable containment materials.

SPECIFIC END USE(S)

- In addition to the use mentioned in the first parts, unforeseen other specific end uses.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

CONTROL PARAMETERS

Component	Country/Region	Limit value - Eight hours		Limit value - short term	
		ppm	mg/m³	ppm	mg/m³
Glycerol	USA - OSHA	--	15	--	--
	South Korea	--	10	--	--
	Ireland	--	10	--	--
	Germany (DFG)	--	50	--	100
	Belgium	--	10	--	--
	Australia	--	10	--	--
Titanium dioxide	USA - OSHA	--	15	--	--
	South Korea		10	--	--

	Ireland		10	--	--
	France		11	--	--
	Denmark		6	--	12
	Australia		10	--	--

- Biological limit values: No relevant regulations
- Monitoring methods

1. EN 14042 Workplace atmospheres. Guide for applying and using procedures to assess exposure to chemical and biological agents.
2. GBZ/T 300.1~GBZ/T 300.160-2017; GBZ/T 300.161~GBZ/T 300.164-2018 Determination of toxic substances in workplace air (Series standard).

- Derived No effect level (DNEL)

Component	Route of exposure	DNEL for Workers			
		Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Water	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Glycerol	Inhalation	No data available	No data available	56 mg/m3	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Titanium dioxide	Inhalation	No data available	No data available	10 mg/m3	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

- Predicted No Effect Concentration (PNEC): No information available

ENGINEERING CONTROLS

- Ensure adequate ventilation, especially in confined areas.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Set up an emergency exit and necessary risk-elimination area.
- Handle under good industrial hygiene and safety practices.

PERSONAL PROTECTION EQUIPMENT

- General requirement: Mask
- Eye protection: In general situations, eye protection is optional. When in contact with vapor or dust, tightly fitting safety goggles are used in the production process.
- Hand protection: In general situations, hand protection is not needed.
- Respiratory protection: In general situations, respiratory protection is not needed. If exposure limits are exceeded or irritation or other symptoms are experienced, wear a dust-proof mask or gas-defense mask.
- Skin and body protection: Generally, skin and body protection are unnecessary.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES AND SAFETY

CHARACTERISTICS

- Physical state: Liquid
- Color: White
- Odor: Weak odor
- Odor: threshold No information available
- pH: 7~10
- Melting point/freezing point(°C): No information available
- Initial boiling point and boiling range(°C): No information available
- Flashpoint (Closed cup,°C): >100°C
- Evaporation rate: No information available
- Flammability: Not flammable
- Upper/lower explosive limits [%(v/v)]: Upper limit: No information available | Lower limit: No information available
- Vapor pressure: No information available
- Vapor density (Air =1): No information available
- Relative density (Water=1): No information available
- Solubility: No information available
- n-octanol/water partition coefficient: No information available
- Auto-ignition temperature(°C): No information available
- Decomposition temperature(°C): No information available
- Viscosity: 3.0-5.0 cP
- Explosive properties: Not explosive
- Oxidizing properties: Not oxidizing
- Particle characteristics: Not applicable

SECTION 10 - STABILITY AND REACTIVITY

- Reactivity: Contact with incompatible substances can cause decomposition or other chemical reactions.
- Chemical stability: Stable under proper operation and storage conditions.
- Possibility of hazardous reactions: In contact with active metals (alkali metals, Na, Ca, etc.) causes a reaction and releases hydrogen. In contact with oxidants, it causes severe reactions and may cause a fire or explosion.
- Conditions to avoid: Incompatible materials, heat, flame, and spark.
- Incompatible materials: Strong oxides, strong acids, strong bases.
- Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Component	LD50(oral)	LD50(dermal)	LC50(inhalation,4h)
Glycerol	12600mg/kg(Rat)	> 10000mg/kg(Rabbit)	No information available

CARCINOGENICITY

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
Water	Not Listed	Not Listed
Glycerol	Not Listed	Not Listed
Titanium dioxide	Category 2B	Not Listed

ENDOCRINE DISRUPTING PROPERTIES

- Endocrine disrupting properties No information available

OTHERS

- Skin corrosion/irritation: Based on available data, the classification criteria are not met
- Severe eye damage/irritation: Based on available data, the classification criteria are not met
- Skin sensitization: Based on available data, the classification criteria are not met
- Respiratory sensitization: Based on available data, the classification criteria are not met
- Reproductive toxicity: Based on available data, the classification criteria are not met
- STOT-single exposure: Based on available data, the classification criteria are not met
- STOT-repeated exposure: Based on available data, the classification criteria are not met
- Aspiration hazard: Based on available data, the classification criteria are not met
- Germ cell mutagenicity: Based on available data, the classification criteria are not met
- Reproductive toxicity(additional): Based on available data, the classification criteria are not met

SECTION 12 - ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY

Component	Fish	Crustaceans	Algae
Glycerol	LC50：68100mg/L (96h)(Fish)	No information available	No information available

CHRONIC AQUATIC TOXICITY

- Chronic aquatic toxicity: No information available

PERSISTENCE AND DEGRADABILITY

Component	Persistence (water/soil)	Persistence (air)
Water	Low	Low
Titanium dioxide	High	High

BIOACCUMULATIVE POTENTIAL

Component	Bioaccumulative potential	Comments
Water	Low	Log Kow=-1.38
Titanium dioxide	High	BCF=10

MOBILITY IN SOIL

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Water	Low	14.3
Titanium dioxide	Low	23.74

RESULTS OF PBT AND VPVB ASSESSMENT

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Glycerol	Not PBT/vPvB
Titanium dioxide	Not applicable

ENDOCRINE DISRUPTING PROPERTIES

- Endocrine-disrupting properties: No information available

SECTION 13 - DISPOSAL CONSIDERATIONS

- Waste chemicals: Before disposal, the relevant national and local laws and regulations should be referred to. Recommend the use of incineration disposal.
- Contaminated packaging: Containers may still present chemical hazards when empty. Keep away from hot and ignition sources of fire. Return to supplier for recycling if possible.
- Disposal recommendations: Refer to section waste chemicals and contaminated packaging.

SECTION 14 - TRANSPORT INFORMATION

LABEL AND MARK

- Transporting Label: Not applicable

IMDG-CODE

- IMDG-CODE: Not regulated for transport of dangerous goods

IATA-DGR

- IATA-DGR: Not regulated for transport of dangerous goods

UN-ADR

- UN-ADR: Not regulated for transport of dangerous goods

Section 15 - Regulatory Information

INTERNATIONAL CHEMICAL INVENTORY

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIIC	ENCS
Water	√	√	√	√	√	√	√	√	√
Glycerol	√	√	√	√	√	√	√	√	√
Titanium dioxide	√	√	√	√	√	√	√	√	√

- [EINECS] European Inventory of Existing Commercial Chemical Substances
- [TSCA] United States Toxic Substances Control Act Inventory
- [DSL] Canadian Domestic Substances List
- [IECSC] China Inventory of Existing Chemical Substances
- [NZIoC] New Zealand Inventory of Chemicals
- [PICCS] Philippines Inventory of Chemicals and Chemical Substances
- [KECI] Korea Existing Chemicals Inventory
- [AIIC] Australia. Inventory of Industrial Chemicals (AIIC)
- [ENCS] Japan Inventory of Existing & New Chemical Substances

EUROPEAN CHEMICAL INVENTORY

Component	A	B	C	D	E	F	G
Water	×	×	×	√	×	×	×
Glycerol	×	×	×	√	√	×	×
Titanium dioxide	×	×	×	√	√	√	×

- [A] Candidate list of Substances of Very High Concern for authorization under EU REACH regulation
- [B] Substances requiring authorization under EU REACH regulation
- [C] Substances restricted under EU REACH
- [D] Pre-registered substances under EU REACH
- [E] Registered substances under EU REACH
- [F] Substance Evaluation – CoRAP under EU REACH
- [G] List of priority substances under EU water policy(Directive 2455/2001/EC)
- Note: "√" Indicates that the substance included in the regulations. "×" No data or not included in the regulations.

Section 16 - Additional Information

INFORMATION ON REVISION

- Creation Date: 2024/08/05
- Revision Date: 2024/08/05
- Reason for revision: --

REFERENCE

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- [2] IARC: website: http://www.iarc.fr/
- [3] OECD: The Global Portal to Information on Chemical Substances, website: https://www.echemportal.org/echemportal/substancesearch/index.action
- [4] CAMEO Chemicals: website: http://cameochemicals.noaa.gov/search/simple
- [5] NLM: ChemIDplus: website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- [6] EPA: Integrated Risk Information System: website: http://cfpub.epa.gov/iris/
- [7] U.S. Department of Transportation: ERG, website: http://www.phmsa.dot.gov/hazmat/library/erg
- [8] Germany GESTIS-database on hazard substance, website: http://gestis-en.itrust.de/

ABBREVIATIONS AND ACRONYMS

CAS Chemical Abstracts Service
UN The United Nations
PC-STEL Short-term exposure limit
OECD Organization for Economic Co-operation and Development
PC-TWA Time Weighted Average
IMDG International Maritime Dangerous Goods
MAC Maximum Allowable Concentration
IARC International Agency for Research on Cancer
DNEL Derived No Effect Level
ICAO International Civil Aviation Organization
PNEC Predicted No Effect Concentration
IATA International Air Transportation Association
NOEC No Observed Effect Concentration
ACGIH American Conference of Governmental Industrial Hygienists
LC50 Lethal Concentration 50%
NFPA National Fire Protection Association
LD50 Lethal Dose 50%
NTP National Toxicology Program
EC50 Effective Concentration 50%
PBT Persistent, Bioaccumulative, Toxic
ECX Effective Concentration X%
vPvB very Persistent, very Bioaccumulative
POW Partition coefficient Octanol: Water
CMR Carcinogens, mutagens, or substances toxic to reproduction
BCF Bioconcentration factor
RPE Respiratory Protective Equipment
ED Endocrine disruptor

DISCLAIMER

This Safety Data Sheet (SDS) was prepared according to the REACH Regulation. The data included was derived from an internationally authoritative database provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user reference. Users should independently judge the suitability of this information for their purposes. We do not assume responsibility for loss, damage, or expense arising out of or in any way connected with the product's handling, storage, use, or disposal.