

DPI DG PRINTING s.r.l



CREATION DATE : 2020/10/21
REVISION DATE : 2022/04/11
VIERSION V2.0.0.1
Prepared according to EU regulation No. 2015/830

**** SAFETY DATA SHEET ****

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

Product name : Textile Digital Pigment ink
SDS Name: **PICTA INK – BLACK (nero)**

Catalog Numbers: GB6944&gb12268

Company Identification (distributor's company) : DPI DG PRINTING s.r.l.
Via E. Salfari 14/ e - 31056 Biancade di Roncade (TV) – ITALY

For information, call: 0039-0422 798184

Email : amministrazione@ser-tec.org

1.2 Emergency telephone number

USA: Chemtrec: +001-800-424-9300
Outside USA: Chemtrec: +001-703-527-3887
24 Hour Emergency Phone Number

2 Hazards identification

[1] CLP classification according to Regulation (EC) No. 1272/2008
According to Regulation (EC) No 1272/2008 and its amendments Not classified as a dangerous substance.

[2] GHS Label elements

HAZARD PICTOGRAMS :	NOT APPLICABLE
SIGNAL WORD :	NOT APPLICABLE

I Hazard statements	NOT APPLICABLE
---------------------	----------------

Precautionary statements
Prevention



CREATION DATE : 2020/10/21
 REVISION DATE : 2022/04/11
 VIERSION V2.0.0.1
 Prepared according to EU regulation No. 2015/830

- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
- P242: Use only non-sparking tools.
- P243: Take action to prevent static discharges.
- P260: Do not breathe dust/fume/gas/mist/vapours/spray.
- P264: Wash hands, face thoroughly after handling.
- P271: Use only outdoors or in a well-ventilated area.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes.
Remove contact lenses if present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists get medical advice/attention.
- P361: Remove/Take off immediately all contaminated clothing.
- P381: In case of leakage, eliminate all ignition sources.
- P404: Store in a closed container.
- P501: Dispose of contents/container in accordance with local regulation

Other hazards
 Not applicable.

3 Composition / information on ingredients

Substance / mixture

Component	CAS No.	EC No.	Index No.	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Weight % content (or range)
Water	7732-18-5	231-791-2	-	Not Classified	40~70
Ethleneglycol	107-21-1	203-473-3	603-027-00-1	Acute Toxicity – Oral, Category 4, H302	5~20
Glycerol	56-81-5	200-289-5	-	Not Classified	3~10
Carbon black	1333-86-4	215-609-9	-	Not Classified	3~6
2,2'-oxydiethanol	111-46-6	203-872-2	603-140-00-6	Acute Toxicity – Oral, Category 4, H302	1~5
2-(2-butoxyethoxy)ethanol	112-34-5	203-961-6	603-096-00-8	Eye Damage/Irritation, Category 2, H319	1~2



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 feel uncomfortable.
Skin contact	No harm in general situation. First aid is not needed.
Ingestion	Never give anything by mouth to an unconscious person. Call a physician immediately.
Inhalation	Move 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.

Most Important symptoms/effects, acute and delayed

1 Please see section 11.

Indication of any immediate medical attention and special treatment needed

- 1 Treat symptomatically.
- 2 Symptoms may be delayed.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used

Specific hazards arising from the substance or mixture

- 1 Development of hazardous combustion gases or vapor possible in the event of fire.
- 2 May expansion or decompose explosively when heated or involved in fire.

Advice for firefighters

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



6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

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

Methods and materials for containment and cleaning up

- 1 Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
- 2 Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations .
- 3 Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7 Handling and storage

Precautions for safe handling

- Protective measures
 - 1 Handling is performed in a well ventilated place.
 - 2 Avoid contact with eyes.
- Measures to prevent fire
 - 1 Keep away from heat/sparks/open flames/ hot surfaces.
- Measures to prevent aerosol and dust generation
 - 1 Not applicable.
- Advice on general occupational hygiene
 - 1 Wash hands and face after using of the substances.
 - 2 Replace the contaminated clothing immediately.

Conditions for safe storage, including any incompatibilities

- 1 Keep containers tightly closed.
- 2 Keep away from heat/sparks/open flames/hot surfaces
- 3 Store away from incompatible materials and foodstuff containers

Specific and use (s)

- 1 in addition to use mentioned in the first parts , unforeseen other specific and uses.



CREATION DATE : 2020/10/21
 REVISION DATE : 2022/04/11
 VIERSION V2.0.0.1
 Prepared according to EU regulation No. 2015/830

8 Exposure controls/personal protection

Control parameters

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
Ethyleneglycol	South Korea	-	-	40	100
	New Zealand	-	-	50	127
	Ireland	20	52	40	104
	Germany (AGS)	10	26	20	52
	Denmark	10	26	20	52
	Australia	20	52	40	104
Glycerol	USA - OSHA	-	15	-	-
	South Korea	-	10	-	-
	Ireland	-	10	-	-
	Germany (DFG)	-	50	-	100
	Belgium	-	10	-	-
	Australia	-	10	-	-
Carbon black	USA - OSHA	-	3.5	-	-
	South Korea	-	3.5	-	-
	Ireland	-	3.5	-	7
	France	-	3.5	-	-
	Denmark	-	3.5	-	7
	Australia	-	3	-	-
2,2'-oxydiethanol	Sweden	10	45	20	90
	New Zealand	23	101	-	-
	Ireland	23	100	-	-

	Germany (AGS)	10	44	40	176
	Denmark	2.5	11	5	22
	Australia	23	100	-	-
2-(2-butoxyethoxy)ethanol	Latvia	10	67.5	15	101.2
	Ireland	10	67.5	15	101.2
	Germany (AGS)	10	67	15	100
	Denmark	-	100	-	200
	Belgium	10	67.5	15	101.2
	Austria	10	67.5	15	101.2



CREATION DATE : 2020/10/21
 REVISION DATE : 2022/04/11
 VIERSION V2.0.0.1
 Prepared according to EU regulation No. 2015/830

- Biological limit values
 Biological limit values No relevant regulations

- Monitoring methods

- 1 EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of 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
Ethyleneglycol	Inhalation	No data available	No data available	35 mg/m ³	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/m ³	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
Carbon black	Inhalation	No data available	No data available	2 mg/m ³	1~2 mg/m ³
	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
2,2'-oxydiethanol	Inhalation	No data available	No data available	60 mg/m ³	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
2-(2-butoxyethoxy)ethanol	Inhalation	No data available	No data available	67.5 mg/m ³	67.5 mg/m ³
	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)
 Predicted No Effect No information available
 Concentration (PNEC)

- Engineering controls

- 1 Ensure adequate ventilation, especially in confined areas.
- 2 Ensure that eyewash stations and safety showers are close to the workstation location.
- 3 Set up emergency exit and necessary risk-elimination area.
- 4 Handle in accordance with good industrial hygiene and safety practice.



- Personal protection equipment

General requirement :	No special requirements, please see the description below.
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapor , tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
Hand protection	in general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Skin and body protection	jn general situation, skin and body protection are not needed.

9 Physical and chemical properties and safety characteristics

_Physical and chemical properties

Appearance	Liquid
Odor	No information available
Odor threshold	No information available
Ph	7-10
belting point/freezing point C°	No information available
initial boiling point and boiling	> 100
Flash point (Closed cup,C°)	> 67
Evaporation rate	No information available
Flammability	Not flammable
Upper/lower explosive	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	Soluble in water
n-octanol/water partition coefficient	No information available
Auto-ignition temperature (°C)	No information available
Decomposition temperature(°C)	No information available
Viscosity	No information available
Explosive properties	not explosive
Oxidizing properties	not oxidizing

10 Stability and reactivity

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 release hydrogen. In contact with oxidants causes severe reactions, and may cause a fire or explosion
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide. Oxidants, alkali metals, alkaline earth metals and aluminum.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.



CREATION DATE : 2020/10/21
 REVISION DATE : 2022/04/11
 VIERSION V2.0.0.1
 Prepared according to EU regulation No. 2015/830

11 Toxicological information

Acute toxicity

Component	LD ₅₀ (oral)	LD ₅₀ (dermal)	LC ₅₀ (inhalation,4h)
Ethyleneglycol	4700mg/kg(Rat)	No information available	No information available
2,2'-oxydiethanol	12565mg/kg(Rat)	11890mg/kg(Rabbit)	No information available
Carbon black	> 15400mg/kg(Rat)	> 3000mg/kg(Rabbit)	No information available
2-(2-butoxyethoxy)ethanol	5660mg/kg(Rat)	2700mg/kg(Rabbit)	No information available
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
Ethyleneglycol	Not Listed	Not Listed
Glycerol	Not Listed	Not Listed
Carbon black	Category 2B	Not Listed
2,2'-oxydiethanol	Not Listed	Not Listed
2-(2-butoxyethoxy)ethanol	Not Listed	Not Listed

Others

Textile Digital Pigment ink

Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious 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

12 Ecological information

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae
Ethyleneglycol	LC ₅₀ : 54700mg/L (96h)(Fish)	EC ₅₀ : >1100mg/L (48h)(Crustaceans)	ErC ₅₀ : >1000mg/L (72h)(Algae)
2,2'-oxydiethanol	LC ₅₀ : 75200mg/L (96h)(Fish)	No information available	No information available
2-(2-butoxyethoxy)ethanol	LC ₅₀ : 1650mg/L (96h)(Fish)	No information available	No information available
Glycerol	LC ₅₀ : 68100mg/L (96h)(Fish)	No information available	No information available



CREATION DATE : 2020/10/21
 REVISION DATE : 2022/04/11
 VIERSION V2.0.0.1
 Prepared according to EU regulation No. 2015/830

Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae
Ethyleneglycol	No information available	NOEC : 100mg/L(Crustaceans)	NOEC: 1000mg/L(Algae)

Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Water	Low	Low
Ethyleneglycol	Low(Half-life = 24 days)	Low(Half-life = 3.46 days)
2,2'-oxydiethanol	Low	Low
2-(2-butoxyethoxy)ethanol	Low	Low

Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Water	Low	Log Kow=-1.38
Ethyleneglycol	Low	BCF=200
2,2'-oxydiethanol	Low	BCF=180
2-(2-butoxyethoxy)ethanol	Low	BCF=46

Mobility in soil

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Water	Low	14.3
Ethyleneglycol	High	1
2,2'-oxydiethanol	High	1
2-(2-butoxyethoxy)ethanol	Low	10

Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Water	not PBT/vPvB
Ethyleneglycol	not PBT/vPvB
Glycerol	not PBT/vPvB
Carbon black	not PBT/vPvB
2,2'-oxydiethanol	not PBT/vPvB
2-(2-butoxyethoxy)ethanol	not PBT/vPvB



13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

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

15 Regulatory information

International chemical inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS
Water	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ethylenglycol	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glycerol	✓	✓	✓	✓	✓	✓	✓	✓	✓
Carbon black	✓	✓	✓	✓	✓	✓	✓	✓	✓
2,2'-oxydiethanol	✓	✓	✓	✓	✓	✓	✓	✓	✓
2-(2-butoxyethoxy)ethanol	✓	✓	✓	✓	✓	✓	✓	✓	✓

[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]	Existing and Evaluated Chemical Substances
[AICS]	Australia Inventory of Chemical Substances
[ENCS]	Existing And New Chemical Substances



CREATION DATE : 2020/10/21
 REVISION DATE : 2022/04/11
 VIERSION V2.0.0.1
 Prepared according to EU regulation No. 2015/830

European chemical inventory

Component	A	B	C	D	E	F	G
Water	x	x	x	✓	x	x	x
Ethyleneglycol	x	x	x	✓	✓	x	x
Glycerol	x	x	x	✓	✓	x	x
Carbon black	x	x	x	✓	✓	x	x
2,2'-oxydiethanol	x	x	x	✓	✓	✓	x
2-(2-butoxyethoxy)ethanol	x	x	✓	✓	✓	x	x

- [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.
- x No data or not included in the regulations

16 Other Information

Information on revision

Creation Date : 2020/10/21
 Revision Date : 2022/04/11
 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/echemportalHsubstancesearch/index.action>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
 NLM: ChemIDplus , website: <http://chem.sis.mm.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/hazmaMibrary/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS Chemical Abstracts Service
 PC-STEL Short term exposure limit
 PC-TWA Time weighted Average
 MAC Maximum Allowable Concentration
 DNEL Derived no effect level
 PNEC Predicted no effect concentration
 NOEC No observed effect concentration
 LC50 Lethal concentration 50%
 LD50 Lethal Dose 50 %
 EC50 Effective Concentration 50%
 ECx Effective concentration X %
 Pow Partition coefficient Octanol : water

DPI DG PRINTING s.r.l



CREATION DATE : 2020/10/21

REVISION DATE : 2022/04/11

VIERSION V2.0.0.1

Prepared according to EU regulation No. 2015/830

BCF	Bioconcentration factor
UN	The United Nation
OECD	Organization for Economic Co- operation and Development
IMDG	International Maritime dangerous goods
IARC	International agency for research on cancer
ICAO	International Civil Aviation organization
IATA	International Air transportation association
ACGIH	American conference of governmental industrial Hygienists
NFPA	National Fire Protection Association
NTP	National toxicology program
PST	Persistent , bioaccumulative , toxic
VPvB	very persistent , very bioaccumulative
CMR	carginogens , mutagens or substances toxic to reproduction
RPE	respiratory protective equipment

Disclaimer

This Safety Data Sheet (SDS) was prepared according to REACH Regulation the data included was derived from international authoritative database and 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's reference. Users should make their independent judgment of suitability of this information for their particular purposes .

We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

DPI DG PRINTING SRL