

**Safety Data Sheet pursuant to Directive (EC) No. 1907/2006**

Prepared on: 2023-02-09

Revised on:

Valid from: 02/2023

Version: 1

Replaces version: -

**Section 1: Designation of the substance or the mixture, and of the company**

**1.1 Product identifier**

Name of substance / trade name: Fluorescent Test inks 44 – 64 mN/m

Product number:

Ink 44: **100044525**

Ink 48: **100044526**

Ink 56: **100044527**

Ink 64: **100044528**

**Other designations:**

Fluoreszierende Test Tinten

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

**Relevant identified uses:**

Measuring the surface energy of components.

Materials such as: plastic, metal, glass, ceramics

**Uses advised against:**

Use on hot surfaces.

**1.3 Information on the supplier who provides the Safety Data Sheet**

**Manufacturer / Supplier**

Diener electronic GmbH & Co. KG

**Address**

Nagolder Str. 61

**Country ID/PO code/town**

72224 Ebhausen

**Contact person for technical information**

Mr Christof Diener

**Phone / email:**

+49 74 58 – 999 31 - 542 / info@plasma.com

**1.4 Emergency phone**

**Section 2: Potential hazards**

**2.1 Classification of the substance or mixture**

Classification pursuant to Directive (EC) No. 1272/2008

Not a hazardous substance or hazardous mixture pursuant to Directive (EC) No. 1272/2008.

**2.2 Identifying elements**

**Identifying elements pursuant to Directive (EC) No. 1272/2008**

Not a hazardous substance or hazardous mixture pursuant to Directive (EC) No. 1272/2008.

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**2.3 Other hazards**

This substance/this mixture does not contain any components in concentrations of 0.1% or higher which are classified as either Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB).

**Section 3: Composition/information on components**

**3.1 Substance**

**Name of substance: Deionized water**

EC No.: 231-791-2

CAS No.: 7732-18-5

REACH registration no.: There is no registration number for this substance since the substance and its use are exempt from registration, no registration of the annual tonnage is required, or registration is planned for a later point in time.

Ratio in the inks: 18 – 73 %

**Name of substance: Dimethyl sulfoxide**

EC No.: 200-664-3

CAS No.: 67-68-5

REACH registration no.: 01-2119431362-50-xxxx

Ratio in the inks: 27 – 81%

**Name of substance: Ethanol**

EC No.: 200-578-6

CAS No.: 64-17-5

REACH registration no.: 01-2119457610-43-xxxx

Ratio in the inks: 0 – 8%

**Name of substance: Fluorescent indicator under 0.1%**

Classification pursuant to Directive (EC) No. 1272/2008:

Not a hazardous substance or hazardous mixture pursuant to Directive (EC) No. 1272/2008.

**Section 4: First aid measures**

**4.1 Description of the first aid measures**

**In case of aspiration**

Provide fresh air. If symptoms occur or in case of doubt, seek medical advice.

**In case of skin contact**

Skin contact is considered the most frequent type of exposition to test inks at the workplace.

Immediately wash skin with plenty of water and soap. If necessary, seek medical advice.

**In case of eye contact**

As a precaution, rinse eyes with water, holding the eyelids apart. Remove contact lenses, if present and easy to do. If symptoms occur, seek medical advice.

**In case of ingestion**

Rinse mouth with water and drink afterwards plenty of water. Do not induce vomiting. Search medical attention if symptoms occur and show this container or label.

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### 4.2 Main acute and delayed symptoms and effects

No data available.

### 4.3 Information on immediate medical help or special treatments

No data available.

## Section 5: Firefighting measures

### 5.1 Extinguishing agents

Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

### 5.2 Special hazards posed by the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours.

### 5.3 Notes for firefighting

The products do not ignite under 61°C temperature.

## Section 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use the specified personal protective equipment. See sections 8. Avoid contact with eyes and skin. Do not breathe in vapour/aerosol.

### Environmental precautions

### 6.2 Dilute with plenty of water. Absorb spilled liquids with universal binder (e.g. diatomaceous earth, vermiculite, sand) and dispose of according to regulations. Clean soiled items and floors. Prevent release into the sewers or to the surface and ground water.

### 6.3 Methods and materials for containment and cleaning up

Absorb spilled liquids with absorptive agents, such as sand, vermiculite or powdered limestone. Place in suitable, sealed containers for disposal and dispose of according to regulations. Ensure sufficient ventilation.

### 6.4 Reference to other Section

Disposal: see section 13.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Do not leave bottles open. General hygiene: - Do not eat, drink or smoke in areas where work is done. - Wash your hands thoroughly after using the substance. - Ensure good ventilation/extraction at the workplace.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

### Information on storage conditions

Recommended storage temperature: 17–25°C

Storing together or jointly with test inks of storage class 8B is harmless.

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### Requirements in storage rooms and containers

Do not refill inks.

Storage class (TRGS 510): 10-13: Other combustible and non-combustible substances

**Storage class: 10-13**

### 7.3 Specific end uses

#### Industry- and sector-specific guidelines

Please refer to our Technical Data Sheet for additional information.

## Section 8: Limiting and monitoring exposure / personal protective equipment

### 8.1 Parameters to be monitored

Data are not available.

### 8.2 Limiting and monitoring exposure

#### Suitable technical control equipment

When handling chemical agents, the usual precautions must be applied. Wash your hands before breaks and at the end of work.

#### Individual protective measures – personal protective equipment

##### Eye / face protection

Wear protective glasses. To protect your eyes, use only eyewear tested and approved according to official standards, such as NIOSH (US) or EN 166 (EU).

##### Skin protection

Wear gloves for work. Check the gloves for intactness before putting them on. Remove them without touching the outside surface of the gloves to avoid skin contact with this product. Dispose of contaminated gloves after use in compliance with the statutory regulations and good laboratory practice. Wash and dry your hands. The selected protective gloves must meet the specifications of the EC Directive 2016/425 and the derived standard EN 374. Obey the manufacturer's recommendations.

Permeation time of the glove material: permeation value: Level  $\geq 6$  (>480min). The exact penetration time must be obtained from the protective glove manufacturer and must be observed.

Other skin protection: Impermeable protective clothing. The type of protective equipment must be selected in keeping with the concentration and quantity of the hazardous substance at safe level.

##### Breathing protection

Avoid aspiration of vapours and aerosols.

##### Limiting and monitoring environmental exposure

No specific environmental protection measures required.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Optical appearance

- Aggregate state:

Liquid

- Colour:

Transparent under normal light, bluish-white fluorescence under UV

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Odour :	DMSO-like
Odour threshold:	Not determined
pH value :	6.5-7.5
Freezing point / melting point:	The inks with high DMSO content freeze around 11°C. After melting around 15°C and mixing, they are usable again. Recommended storage temperature: 17 – 25°C
Initial boiling point and boiling range:	Over 100 °C (at 1013 hPa)
Flash point:	Does not burn under 61°C
Evaporation rate:	Not determined
Flammability (solid, gaseous):	Not applicable
Upper/lower flammability or explosion limits:	Not determined
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	1.03 – 1.09 g/cm <sup>3</sup>
Solubility in water:	Miscible in any proportion
Distribution coefficient:	Not relevant (inorganic)
n-Octanol/water :	Not determined
Spontaneous ignition temperature:	Not applicable
Decomposition temperature:	Not determined
Viscosity:	Not determined

**9.2 Other data**

Surface tension correspondingly 44, 48, 56 and 64 mN/m at 20 °C

**Section 10: Stability and reactivity**

**10.1 Reactivity**

Violent reaction are possible with: Alkali metals, Carbide, Strong oxidisers, Halogenating agents, Strong acids

**10.2 Chemical stability**

Under regular ambient conditions (room temperature, 1013 hPa), the test inks are chemically stable.

**10.3 Risk of hazardous reactions**

When used as intended, no hazardous reactions are to be expected (refer to 10.1).

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### 10.4 Conditions to be avoided

Hot surfaces

### 10.5 Incompatible materials

Refer to 10.1

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5

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## Section 11: Toxicology

### 11.1 Information on toxicological effects

#### Acute toxicity

Shall not be classified as acutely toxic.

#### Burning/irritating effect on the skin

The substance has not been classified.

#### Severe eye damage/irritation

The substance has not been classified.

#### Sensitising of the respiratory tract/skin

The substance has not been classified.

#### Germ cell mutagenicity

The substance has not been classified.

#### Carcinogenicity

The substance has not been classified.

#### Toxicity to reproduction

The substance has not been classified.

#### Specific target organ systemic toxicity with single exposure

The substance has not been classified.

#### Specific target organ systemic toxicity with multiple exposure

The substance has not been classified.

#### Aspiration hazard

The substance has not been classified.

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## Section 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

### 12.2 Persistence and degradability

Biological degradability: 90-100 % / 28d (OECD 301E). Readily biodegradable

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**12.3 Bioaccumulative potential**

Does not significantly accumulate in organisms.

**12.4 Mobility in the soil**

No data available.

**12.5 Results of PBT and vPvB assessment**

In accordance with the available data, the criteria for classification as PBT or vPvB are not met

**12.6 Other adverse effects**

No information available

**Section 13: Disposal considerations**

**13.1 Waste treatment methods**

Have residual volumes and non-reusable solutions disposed of by a recognized disposal company.

**Treatment of contaminated packages**

Rinse glass bottle and dispose of with waste glass. Dispose of the rinse fluid in the same way as of the mixture. Recommended cleaning agent: water

**Waste code according to List of Wastes Regulation (LoW)**

Discuss the exact waste code with the waste disposal contractor.

**Section 14: Transport information**

**14.1 UN number**

-

**14.2 UN proper shipping name**

ADR/RID

-

IMDG Code / ICAO-TI / IATA-DGR

-

**14.3 Transport hazard classes**

-

**14.4 Packing group**

-

**14.5 Environmental hazards**

**Identification of environmentally hazardous substances**

ADR/RID / IMDG code / ICAO-TI / IATA-DGR:  yes /  no

Marine Pollutant:  yes /  no

**14.6 Special precautions for user**

-

**14.7 Transport in bulk according to Appendix II of the MARPOL Convention and the IBC Code**

Contamination category (X, Y or Z): -

Vessel type (1, 2 or 3): -

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### **Section 15: Regulatory information**

#### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

##### **National laws**

###### **Water hazard class**

Not listed.

###### **Solvents Regulation (31. BImSchV)**

VOC ratio: Ink 44 – 57%; Ink 48 – 81%; Ink 56 – 58%; Ink 64 – 27%

##### **Other relevant regulations**

Protection measures pursuant to TRGS 500 have been complied with.

Storage class pursuant to TRGS 510: 10-13 (Other combustible and non-combustible substances)

#### **15.2 Chemical safety assessment**

No chemical safety assessment has been carried out for this product.

### **Section 16: Other data**

#### **Revisions compared to last version**

No revisions made

#### **Literature references and sources for data**

##### **Regulations**

REACH Directive (EC) No. 1907/2006, last modified by Regulation (EU) 586/2022

CLP Directive (EC) No. 1272/2008, last modified by Regulation (EU) 1962/2021

##### **Internet**

[GESTIS-Stoffdatenbank \(dguv.de\)](https://gestis-stoffdatenbank.dguv.de)

[www.baua.de](http://www.baua.de)

[www.gischem.de](http://www.gischem.de)

[www.echa.europa.eu/en/candidate-list-table](http://www.echa.europa.eu/en/candidate-list-table)

#### **Wording of the hazard statements and/or safety statements referred to in Sections 2 to 15**

-

#### **Information on training**

Working with this substance does not require any mandatory training.

Please contact Diener electronic for information on proper handling of these test inks.



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### Legend

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AWSV	German Ordinance on Installations for the Handling of Substances Hazardous to Water
BImSchV	German Air Pollution Control Act
CAS	<b>C</b> hemical <b>A</b> bstracts <b>S</b> ervice
DIN	Standard by <b>D</b> eutsches <b>I</b> nstitut für <b>N</b> ormung
EC	Effective Concentration
EC	<b>E</b> uropean <b>C</b> ommunity
EN	European Standard
IATA-DGR	<b>I</b> nternational <b>A</b> ir <b>T</b> ransport <b>A</b> ssociation- <b>D</b> angerous <b>G</b> oods <b>R</b> egulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	<b>I</b> nternational <b>C</b> ivil <b>A</b> viation <b>O</b> rganization- <b>T</b> echnical <b>I</b> nstructions
IMDG Code	International <b>M</b> aritime Code for <b>D</b> angerous <b>G</b> oods
ISO	Standard by <b>I</b> nternational <b>S</b> tandards <b>O</b> rganization
IUCLID	<b>I</b> nternational <b>U</b> niform <b>C</b> hemical <b>I</b> nformation <b>D</b> atabase
LC	Lethal Concentration
LD	<b>L</b> ethal <b>D</b> ose
log Kow	octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution from Ships
OECD	<b>O</b> rganisation for <b>E</b> conomic <b>C</b> o-operation and <b>D</b> evelopment
PBT	<b>P</b> ersistent, <b>b</b> ioaccumulative, <b>t</b> oxic
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TRGS	Technical Rules for Hazardous Substances
UN	<b>U</b> nited <b>N</b> ations
VOC	<b>V</b> olatile <b>O</b> rganic <b>C</b> ompounds
vPvB	very persistent and very bio-accumulative
VwVwS	German Administrative Regulation Regarding Water Pollutants
WGK	Water Hazard Class

### Additional information

#### Disclaimer

To our best knowledge, the specifications in this Safety Data Sheet correspond to the state of know-how at the time of printing. The information is intended to provide guidance on the safe handling of the product specified in this Safety Data Sheet during storage, processing, transport and disposal. The information cannot be applied to other products. Insofar as the product is mixed, blended or processed with other materials or subjected to treatment, the information in this Safety Data Sheet cannot be transferred to the new material thus produced, unless expressly stated otherwise herein.