

# SAFETY DATA SHEET

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issue Date 21-Nov-2016

Revision Date 21-Nov-2016

Version 1

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Product Name Diamond D10-ESM Magenta

Contains gamma-Butyrolactone

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

Recommended Use Digital Printing

Uses advised against No information available

### 1.3. Details of the supplier of the safety data sheet

Manufacturer NUTEC DIGITAL INK (PTY) LTD. 1 CLIFFORD STREET OTTERY, 7800 SOUTH AFRICA  
For further information, please contact

Contact Point Regulatory Department

### 1.4. Emergency telephone number

Emergency Telephone During normal opening times: +27 21 763 6990  
24 Hours: +27 83 326 0774

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Serious eye damage/eye irritation	Category 1 - (H318)
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Classification according to Directive 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

### Hazard symbols

Xi - Irritant

### R-code(s)

Xi;R41 - Xi;R36 - R67

### 2.2. Label elements

#### Product identifier

Contains gamma-Butyrolactone



#### Signal word

Danger

#### Hazard statements

H318 - Causes serious eye damage

#### Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear eye protection/ face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

#### 2.3. Other hazards

No information available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Chemical Name	EC No	CAS No	Weight-%	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Diethylene glycol diethyl ether	203-963-7	112-36-7	<80	Xi;R36	Eye Irrit. 2 (H319)	No data available
gamma-Butyrolactone	202-509-5	96-48-0	<20	Xn;R22 Xi; R41 R67	Acute Tox. 4 (H302) Eye Dam. 1 (H318) STOT SE 3 (H336)	No data available
Butoxyethyl acetate	203-933-3	112-07-2	<1	Xn; R20/21	Acute Tox. 4 (H312) Acute Tox. 4 (H332)	No data available
Diethylene glycol monobutyl ether	203-961-6	112-34-5	<1	Xi; R36	Eye Irrit. 2 (H319)	No data available

Full text of R-phrases: see section 16

Full text of H- and EUH-phrases: see section 16

### Section 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

<b>General advice</b>	Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. If symptoms persist, call a physician.
<b>Inhalation</b>	Remove to fresh air. If symptoms persist, call a physician. Artificial respiration and/or oxygen may be necessary. Call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.
<b>Ingestion</b>	Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give

anything by mouth to an unconscious person. Call a physician.

**Self-protection of the first aider** Use personal protective equipment as required.

#### **4.2. Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

### **Section 5: FIRE FIGHTING MEASURES**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Use. Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray (fog). Alcohol resistant foam.

##### **Unsuitable extinguishing media**

No information available

#### **5.2. Special hazards arising from the substance or mixture**

Keep product and empty container away from heat and sources of ignition Risk of ignition

#### **5.3. Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### **Section 6: ACCIDENTAL RELEASE MEASURES**

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

##### **Personal precautions**

Avoid contact with eyes and skin. Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

##### **For emergency responders**

Use personal protection recommended in Section 8.

#### **6.2. Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See section 12 for additional ecological information.

#### **6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** After cleaning, flush away traces with water. Prevent product from entering drains. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Dam up. Take precautionary measures against static discharges.

#### **6.4. Reference to other sections**

See section 8 for more information. See section 13 for more information.

### **Section 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling****Advice on safe handling**

Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

**General Hygiene Considerations**

Wash contaminated clothing before reuse. When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

**7.2. Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep container tightly closed. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Keep away from heat.

**Incompatible materials**

None known based on information supplied.

**7.3. Specific end use(s)****Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Butoxyethyl acetate 112-07-2	TWA 20 ppm TWA 133 mg/m <sup>3</sup> STEL 50 ppm STEL 333 mg/m <sup>3</sup> *	TWA: 20 ppm TWA: 133 mg/m <sup>3</sup> STEL: 50 ppm STEL: 332 mg/m <sup>3</sup> Sk*	TWA: 10 ppm TWA: 66.5 mg/m <sup>3</sup> STEL: 50 ppm STEL: 333 mg/m <sup>3</sup> *	TWA: 20 ppm TWA: 133 mg/m <sup>3</sup> STEL: 50 ppm STEL: 333 mg/m <sup>3</sup> via dérmica*	TWA: 20 ppm TWA: 130 mg/m <sup>3</sup> H*
Diethylene glycol monobutyl ether 112-34-5	TWA: 10 ppm TWA: 67.5 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 67.5 mg/m <sup>3</sup> STEL: 15 ppm STEL: 101.2 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 67.5 mg/m <sup>3</sup> STEL: 15 ppm STEL: 101.2 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 67.5 mg/m <sup>3</sup> STEL: 15 ppm STEL: 101.2 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 67 mg/m <sup>3</sup>
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
gamma-Butyrolactone 96-48-0	-	-	-	TWA: 50 ppm TWA: 14 mg/m <sup>3</sup> STEL: 250 ppm STEL: 70 mg/m <sup>3</sup> iho*	-
Butoxyethyl acetate 112-07-2	TWA: 20 ppm TWA: 133 mg/m <sup>3</sup> STEL: 50 ppm STEL: 333 mg/m <sup>3</sup> pelle*	TWA: 20 ppm TWA: 133 mg/m <sup>3</sup> STEL: 50 ppm STEL: 333 mg/m <sup>3</sup> P*	TWA: 135 mg/m <sup>3</sup> STEL: 333 mg/m <sup>3</sup> H*	TWA: 20 ppm TWA: 130 mg/m <sup>3</sup> STEL: 50 ppm STEL: 330 mg/m <sup>3</sup> iho*	TWA: 20 ppm TWA: 134 mg/m <sup>3</sup> H*
Diethylene glycol monobutyl ether 112-34-5	TWA: 10 ppm TWA: 67.5 mg/m <sup>3</sup> STEL: 15 ppm STEL: 101.2 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 67.5 mg/m <sup>3</sup> STEL: 15 ppm STEL: 101.2 mg/m <sup>3</sup>	TWA: 50 mg/m <sup>3</sup> STEL: 100 mg/m <sup>3</sup> H*	TWA: 10 ppm TWA: 68 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 68 mg/m <sup>3</sup>
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Butoxyethyl acetate 112-07-2	TWA: 20 ppm TWA: 133 mg/m <sup>3</sup> STEL 40 ppm STEL 270 mg/m <sup>3</sup> H*	TWA: 10 ppm TWA: 66 mg/m <sup>3</sup> STEL: 20 ppm STEL: 132 mg/m <sup>3</sup> H*	STEL: 300 mg/m <sup>3</sup> TWA: 100 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 65 mg/m <sup>3</sup> STEL: 10 ppm STEL: 65 mg/m <sup>3</sup> H*	TWA: 20 ppm TWA: 133 mg/m <sup>3</sup> STEL: 50 ppm STEL: 333 mg/m <sup>3</sup> Sk*
Diethylene glycol monobutyl ether	TWA: 10 ppm TWA: 67.5 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 67 mg/m <sup>3</sup>	STEL: 100 mg/m <sup>3</sup> TWA: 67 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 68 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 67.5 mg/m <sup>3</sup>

112-34-5	STEL 15 ppm STEL 101.2 mg/m <sup>3</sup>	STEL: 15 ppm STEL: 101 mg/m <sup>3</sup>		STEL: 10 ppm STEL: 68 mg/m <sup>3</sup>	STEL: 15 ppm STEL: 101.2 mg/m <sup>3</sup>
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Chemical Name	European Union	United Kingdom	France	Spain	Germany
Butoxyethyl acetate 112-07-2	-	-	-	-	100 mg/L 200 mg/L
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Butoxyethyl acetate 112-07-2	-	100 200	-	-	-

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

## 8.2. Exposure controls

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

**Eye/face protection**

Tight sealing safety goggles. Face protection shield.

**Skin and body protection**

Suitable protective clothing. Apron. Gloves made of plastic or rubber. Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate. Antistatic footwear.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	liquid	<b>Odor</b>	Characteristic
<b>Appearance</b>	Liquid	<b>Odor threshold</b>	No information available
<b>Color</b>	Magenta		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>		No information available
<b>Melting point / freezing point</b>		No information available
<b>Boiling point / boiling range</b>	175 °C / 347 °F	
<b>Flash point</b>	70 °C / 158 °F	
<b>Evaporation rate</b>		No information available
<b>Flammability (solid, gas)</b>		No information available
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>		No information available
<b>Lower flammability limit:</b>		No information available
<b>Vapor pressure</b>		No information available
<b>Vapor density</b>		No information available
<b>Relative density</b>		No information available
<b>Water solubility</b>	Immiscible in water	No information available
<b>Solubility(ies)</b>		No information available
<b>Partition coefficient</b>		No information available
<b>Autoignition temperature</b>		No information available
<b>Decomposition temperature</b>		No information available
<b>Kinematic viscosity</b>		No information available
<b>Dynamic viscosity</b>		No information available
<b>Explosive properties</b>	Not an explosive	
<b>Oxidizing properties</b>	Not applicable	

### 9.2. Other information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal conditions.

#### Explosion data

Sensitivity to Mechanical Impact    None.

Sensitivity to Static Discharge        None.

### 10.3. Possibility of hazardous reactions

#### **Possibility of Hazardous Reactions**

None under normal processing.

### 10.4. Conditions to avoid

Heat, flames and sparks.

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

None under normal use conditions.

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### **Acute toxicity**

#### **Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

**Inhalation**                                    No data available.

**Eye contact**                                    No data available.

**Skin contact**                                    No data available.

**Ingestion**                                        No data available.

**The following values are calculated based on chapter 3.1 of the GHS document**

**ATEmix (oral)**                                3,656.00 mg/kg

**ATEmix (dermal)**                              9,343.20 mg/kg

#### **Unknown acute toxicity**

94.45589999 % of the mixture consists of ingredient(s) of unknown toxicity.

2.99299999 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

2.99299999 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

74.48789999 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

94.45589999 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

74.48789999 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Diethylene glycol diethyl ether	= 4970 mg/kg ( Rat )	= 6700 µL/kg ( Rabbit )	
gamma-Butyrolactone	= 1540 mg/kg ( Rat )		> 5100 mg/m <sup>3</sup> ( Rat ) 4 h
Butoxyethyl acetate	= 2400mg/kg ( Rat )	= 1500 mg/kg ( Rabbit )	
Diethylene glycol monobutyl ether	= 5660 mg/kg ( Rat )	= 2700 mg/kg ( Rabbit )	

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Unknown aquatic toxicity 75.3879 % of the mixture consists of component(s) of unknown hazards to the aquatic environment  
75.3879 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
gamma-Butyrolactone	360: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	220 - 460: 96 h <i>Leuciscus idus</i> mg/L LC50 static	500: 48 h <i>Daphnia magna</i> Straus mg/L EC50
Butoxyethyl acetate	500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	-	37: 48 h <i>Daphnia magna</i> mg/L EC50
Diethylene glycol monobutyl ether	100: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	1300: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static	100: 48 h <i>Daphnia magna</i> mg/L EC50 2850: 24 h <i>Daphnia magna</i> mg/L EC50

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

Chemical Name	Partition coefficient
gamma-Butyrolactone	-0.566
Butoxyethyl acetate	1.51

### 12.4. Mobility in soil

#### **Mobility in soil**

No information available.

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

No information available

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

<b>Waste from residues/unused products</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Improper disposal or reuse of this container may be dangerous and illegal.
<b>Other Information</b>	Waste codes should be assigned by the user based on the application for which the product was used.

## Section 14: TRANSPORT INFORMATION

### IMDG

<b>14.1 UN/ID no</b>	Not regulated
<b>14.2 Proper Shipping Name</b>	Not regulated
<b>14.3 Hazard Class</b>	Not regulated
<b>14.4 Packing Group</b>	Not regulated
<b>14.5 Marine pollutant</b>	Not applicable
<b>14.6 Special Provisions</b>	None
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	No information available

### RID

<b>14.1 UN/ID no</b>	Not regulated
<b>14.2 Proper Shipping Name</b>	Not regulated
<b>14.3 Hazard Class</b>	Not regulated
<b>14.4 Packing Group</b>	Not regulated
<b>14.5 Environmental hazard</b>	Not applicable
<b>14.6 Special Provisions</b>	None

### ADR

<b>14.1 UN/ID no</b>	Not regulated
<b>14.2 Proper Shipping Name</b>	Not regulated
<b>14.3 Hazard Class</b>	Not regulated
<b>14.4 Packing Group</b>	Not regulated
<b>14.5 Environmental hazard</b>	Not applicable
<b>14.6 Special Provisions</b>	None

### IATA

<b>14.1 UN/ID no</b>	Not regulated
<b>14.2 Proper Shipping Name</b>	Not regulated
<b>14.3 Hazard Class</b>	Not regulated
<b>14.4 Packing Group</b>	Not regulated
<b>14.5 Environmental hazard</b>	Not applicable
<b>14.6 Special Provisions</b>	None

## Section 15: REGULATORY INFORMATION

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

#### France

#### Occupational Illnesses (R-463-3, France)

Chemical Name	French RG number	Title



Diethylene glycol diethyl ether 112-36-7	RG 84	-
gamma-Butyrolactone 96-48-0	RG 84	-
Butoxyethyl acetate 112-07-2	RG 84	-
Diethylene glycol monobutyl ether 112-34-5	RG 84	-

### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical Name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Diethylene glycol monobutyl ether - 112-34-5	Use restricted. See item 55.	

#### Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

#### International Inventories

All of the components in the product are on the following Inventory lists No information available.

#### 15.2. Chemical safety assessment

No information available

## Section 16: OTHER INFORMATION

#### Key or legend to abbreviations and acronyms used in the safety data sheet

##### Full text of R-phrases referred to under sections 2 and 3

R36 - Irritating to eyes  
R67 - Vapors may cause drowsiness and dizziness  
R41 - Risk of serious damage to eyes  
R22 - Harmful if swallowed  
R20/21 - Harmful by inhalation and in contact with skin

##### Full text of H-Statements referred to under section 3

H312 - Harmful in contact with skin  
H332 - Harmful if inhaled  
H319 - Causes serious eye irritation  
H302 - Harmful if swallowed  
H318 - Causes serious eye damage  
H336 - May cause drowsiness or dizziness

#### Legend

SVHC: Substances of Very High Concern for Authorization:

#### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
Ceiling Maximum limit value \* Skin designation

Issue Date 21-Nov-2016

**Revision Date** 21-Nov-2016

**Revision Note** Not applicable.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**End of Safety Data Sheet**