

# SAFETY DATA SHEET

Issue Date 26-Jan-2017

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Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Emerald E12-ESM Black

### Other means of identification

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Digital Printing.

**Uses advised against**

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

#### **Manufacturer Address**

NUTEC DIGITAL INK (PTY) LTD. 1 CLIFFORD STREET OTTERY, 7800 SOUTH AFRICA

### Emergency telephone number

**Company Phone Number** During normal opening times: +27 21 763 6990  
24 Hours: +27 83 326 0774

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3

### Label elements

#### **Emergency Overview**

**Danger**

#### **Hazard statements**

Causes skin irritation

Causes serious eye damage

May cause respiratory irritation. May cause drowsiness or dizziness



**Appearance** Liquid

**Physical state** liquid

**Odor** No information available

#### **Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/protective clothing/eye protection/face protection

Wash face, hands and any exposed skin thoroughly after handling

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

#### Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Specific treatment (see .? on this label)

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

Immediately call a POISON CENTER or doctor

IF ON SKIN: Wash with plenty of water and soap

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing

#### Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Not applicable

#### Other Information

Not applicable

Unknown acute toxicity 2.34149999 % of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

Chemical Name	CAS No	Weight-%	Trade Secret
Dipropylene glycol dimethyl ether	111109-77-4	30 - 60	*
gamma-Butyrolactone	96-48-0	10 - 30	*
Dipropylene Glycol Dimethyl Ether	34590-94-8	10 - 30	*
Butoxyethyl acetate	112-07-2	3 - 7	*
Black Pigment	Proprietary	1 - 5	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

#### Description of first aid measures

##### General advice

If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

##### Eye contact

Keep eye wide open while rinsing. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing 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.

##### Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Immediate medical attention is not required.

##### Inhalation

Remove to fresh air. Call a physician. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Artificial respiration and/or oxygen may be necessary. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

**Ingestion** Rinse mouth. Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician. 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.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**

No information available.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Evacuate personnel to safe areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

**Environmental precautions**

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

**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** Pick up and transfer to properly labeled containers. Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Soak up with inert absorbent material. Dam up.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

**Incompatible materials** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Dipropylene Glycol Dimethyl Ether 34590-94-8	STEL: 150 ppm TWA: 100 ppm S*	TWA: 100 ppm TWA: 600 mg/m <sup>3</sup> (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m <sup>3</sup> (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m <sup>3</sup> (vacated) S*	IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m <sup>3</sup> STEL: 150 ppm STEL: 900 mg/m <sup>3</sup>
Butoxyethyl acetate 112-07-2	TWA: 20 ppm	-	TWA: 5 ppm TWA: 33 mg/m <sup>3</sup>
Black Pigment	TWA: 3 mg/m <sup>3</sup> inhalable fraction	TWA: 3.5 mg/m <sup>3</sup> (vacated) TWA: 3.5 mg/m <sup>3</sup>	IDLH: 1750 mg/m <sup>3</sup> TWA: 3.5 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

NIOSH IDLH *Immediately Dangerous to Life or Health*

#### **California OELs (California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)**

Component	PEL	STEL
Dipropylene Glycol Dimethyl Ether 34590-94-8 ( 10 - 30 )	PEL: 600 mg/m <sup>3</sup>	STEL: 900 mg/m <sup>3</sup>
Black Pigment ( 1 - 5 )	PEL: 3.5 mg/m <sup>3</sup>	-

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

### Appropriate engineering controls

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Tight sealing safety goggles. Face protection shield.

**Skin and body protection** No special technical protective measures are necessary.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 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>	black		

<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>	65 °C / 149 °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	
<b>Solubility in other solvents</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	

**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

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Extremes of temperature and direct sunlight.

**Incompatible materials**

None known based on information supplied.

**Hazardous Decomposition Products**

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

<b>Product Information</b>	No data available
<b>Inhalation</b>	No data available.
<b>Eye contact</b>	No data available.
<b>Skin contact</b>	No data available.

**Ingestion**

No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
gamma-Butyrolactone 96-48-0	= 1540 mg/kg ( Rat )	-	> 5100 mg/m <sup>3</sup> ( Rat ) 4 h
Dipropylene Glycol Dimethyl Ether 34590-94-8	= 5400 µL/kg ( Rat )	= 9500 mg/kg ( Rabbit )	-
Butoxyethyl acetate 112-07-2	= 2400mg/kg ( Rat )	= 1500 mg/kg ( Rabbit )	-
Black Pigment	> 15400 mg/kg ( Rat )	> 3 g/kg ( Rabbit )	-

**Information on toxicological effects****Symptoms**

No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Sensitization**

No information available.

**Germ cell mutagenicity**

No information available.

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
gamma-Butyrolactone 96-48-0	-	Group 3	-	-
Butoxyethyl acetate 112-07-2	A3	-	-	-
Black Pigment	A3	Group 2B	-	X

*ACGIH (American Conference of Governmental Industrial Hygienists)**A3 - Animal Carcinogen**IARC (International Agency for Research on Cancer)**Not classifiable as a human carcinogen**Group 2B - Possibly Carcinogenic to Humans**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**X - Present***Reproductive toxicity**

No information available.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Chronic toxicity**

Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

**Target Organ Effects**

blood, Central nervous system, Eyes, Hematopoietic System, kidney, liver, Lymphatic System, Respiratory system, Skin.

**Aspiration hazard**

No information available.

**Numerical measures of toxicity - Product Information**

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

<b>ATEmix (oral)</b>	5,404.00 mg/kg
<b>ATEmix (dermal)</b>	14,470.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	26.10 mg/l
<b>ATEmix (inhalation-vapor)</b>	191.00 mg/l

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

55.872 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
gamma-Butyrolactone 96-48-0	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
Dipropylene Glycol Dimethyl Ether 34590-94-8	-	10000: 96 h <i>Pimephales promelas</i> mg/L LC50 static	1919: 48 h <i>Daphnia magna</i> mg/L LC50
Butoxyethyl acetate 112-07-2	500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	-	37: 48 h <i>Daphnia magna</i> mg/L EC50

Black Pigment	10000 mg/l / 3 d scenedesmus subspicatus	1000 mg/l / 96 h Brachydanio rerio)	5600: 24 h Daphnia magna mg/L EC50
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**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
gamma-Butyrolactone 96-48-0	-0.566
Dipropylene Glycol Dimethyl Ether 34590-94-8	-0.064
Butoxyethyl acetate 112-07-2	1.51

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not reuse container.

**US EPA Waste Number**

U220

This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. TRANSPORT INFORMATION****DOT** Not regulated**TDG** Not regulated**MEX** Not regulated**ICAO (air)** Not regulated**IATA** Not regulated**IMDG** Not regulated**RID** Not regulated**ADR** Not regulated**ADN** Not regulated**15. REGULATORY INFORMATION****International Inventories**

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

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Dipropylene Glycol Dimethyl Ether - 34590-94-8	1.0
Butoxyethyl acetate - 112-07-2	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Black Pigment - 1333-86-4	Carcinogen
Toluene - 108-88-3	Developmental

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Dipropylene Glycol Dimethyl Ether 34590-94-8	X	X	X
Butoxyethyl acetate 112-07-2	X	-	X
Black Pigment 1333-86-4	X	X	X
Toluene 108-88-3	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	Health hazards 2	Flammability 0	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection X

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**Revision Note**

No information available

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet