

# 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 08-Mar-2018

Revision Date 08-Mar-2018

Version 1

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

### 1.1. Product identifier

Product Name IJ4500 - Black

Contains Proprietary Acrylic Ester Derivative, Multifunctional Amine Acrylate, Acrylic Acid Ester, Black Pigment, Morpholine, 4-(1-oxo-2-propenyl)-, phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide, Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide

### 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

|  |                     |
|--|---------------------|
| Acute toxicity - Oral                              | Category 4 - (H302) |
| Skin corrosion/irritation                          | Category 1 - (H314) |
| Serious eye damage/eye irritation                  | Category 1 - (H318) |
| Skin sensitization                                 | Category 1 - (H317) |
| Specific target organ toxicity (single exposure)   | Category 3 - (H335) |
| Specific target organ toxicity (repeated exposure) | Category 2 - (H373) |
| Chronic aquatic toxicity                           | Category 3 - (H412) |

Classification according to Directive 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

### 2.2. Label elements

#### Product identifier

Contains Proprietary Acrylic Ester Derivative, Multifunctional Amine Acrylate, Acrylic Acid Ester, Black Pigment, Morpholine, 4-(1-oxo-2-propenyl)-, phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide, Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide



Signal word

Danger

#### Hazard statements

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H335 - May cause respiratory irritation

H373 - May cause damage to organs through prolonged or repeated exposure

H412 - Harmful to aquatic life with long lasting effects

Contains 2-phenoxyethyl acrylate, Oxybis(methyl-2,1-ethanediyl diacrylate, Propoxylated neopentyl glycol, 1,6-Hexanediol diacrylate EUH208 - May produce an allergic reaction

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

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

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

P314 - Get medical advice/attention if you feel unwell

P501 - Dispose of contents/container to industrial incineration plant

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

#### 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 |
|---|-----------|-------------|----------|--|---|---------------------------|
| Proprietary Acrylic Ester Derivative              | Listed    | -           | <55      | Xi; R36/37/38. N; R51/53.                                      | STOT SE 3 (H335)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410) | No data available         |
| Morpholine, 4-(1-oxo-2-propenyl)-                 | 418-140-1 | 5117-12-4   | <35      | Xn; R22-48/22<br>Xi; R41<br>R43                                | Acute Tox. 4 (H302)<br>Eye Dam. 1 (H318)<br>Skin Sens. 1 (H317)<br>STOT RE 2 (H373)                                   | No data available         |
| Multifunctional Amine Acrylate                    | -         | 67906-98-3  | <10      | Xi; R36/38   | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)   | No data available         |
| phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide | 423-340-5 | 162881-26-7 | <10      | R43<br>R53   | Skin Sens. 1 (H317)<br>Aquatic Chronic 4 (H413)   | No data available         |
| Acrylic Acid Ester                                | Listed    | -           | <10      | Xn; R22 - C; R34 - R43 - R52/53                                | Acute Tox. 4 (H302)<br>Skin Corr. 1A (H314)<br>Skin Sens. 1 (H317)<br>Aquatic Chronic 3 (H412)                        | No data available         |
| Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide  | 278-355-8 | 75980-60-8  | <5       | Repr.Cat.3; R62<br>R43<br>N; 51/53                             | Skin Sens. 1 (H317)<br>Repr. 2 (H361)<br>Aquatic Chronic 2 (H411)   | No data available         |

|  |           |             |     |                   |  |                   |
|--|-----------|-------------|-----|-------------------|--|-------------------|
| 2-Benzyl-2-dimethylamino-1-(4-morpholinophenyl)butan-1-one | 404-360-3 | 119313-12-1 | <5  | N; R50-53         | Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410)   | No data available |
| Black Pigment  | Listed    | -           | <5  | -                 | No data available  | No data available |
| 2-phenoxyethyl acrylate                                    | 256-360-6 | 48145-04-6  | <1  | -                 | Eye Dam. 1 (H318)<br>Skin Sens. 1 (H317)<br>Aquatic Chronic 2 (H411)                           | No data available |
| Propoxylated neopentyl glycol                              | -         | 84170-74-1  | <10 | Xi; R36/37/38     | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Skin Sens. 1 (H317)<br>STOT SE 3 (H335)         | No data available |
| Oxybis(methyl-2,1-ethenediyl diacrylate                    | 260-754-3 | 57472-68-1  | <10 | Xi; R41,38<br>R43 | Skin Irrit. 2 (H315)<br>Eye Dam. 1 (H318)<br>Skin Sens. 1 (H317)                               | No data available |
| 1,6-Hexanediol diacrylate                                  | 235-921-9 | 13048-33-4  | <10 | Xi; R36/38<br>R43 | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Skin Sens. 1 (H317)<br>Aquatic Chronic 3 (H412) | 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>Inhalation</b>   | Remove to fresh air.  |
| <b>Skin contact</b> | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.                   |
| <b>Eye contact</b>  | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.<br>Consult a physician. |
| <b>Ingestion</b>    | Clean mouth with water and drink afterwards plenty of water.  |

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

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

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

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

## Section 5: FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable extinguishing media

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

**Unsuitable extinguishing media**

No information available

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

Thermal decomposition can lead to release of irritating and toxic gases and vapors

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

**Section 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

Ensure adequate ventilation, especially in confined areas.

**For emergency responders**

Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

Collect spillage.

**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**

Take up mechanically, placing in appropriate containers for disposal.

**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.

**General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice.

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

Keep container tightly closed in a dry and well-ventilated place.

**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   |
|---------------|----------------|---|----------------------------|---|---|
| Black Pigment | -              | TWA: 3.5 mg/m <sup>3</sup><br>STEL: 7 mg/m <sup>3</sup> | TWA: 3.5 mg/m <sup>3</sup> | TWA: 3.5 mg/m <sup>3</sup>                                | -   |
| Chemical Name | Italy          | Portugal  | Netherlands                | Finland   | Denmark   |
| Black Pigment | -              | TWA: 3.5 mg/m <sup>3</sup>                              | -                          | TWA: 3.5 mg/m <sup>3</sup><br>STEL: 7 mg/m <sup>3</sup>   | TWA: 3.5 mg/m <sup>3</sup>                              |
| Chemical Name | Austria        | Switzerland   | Poland                     | Norway  | Ireland   |
| Black Pigment | -              | -   | TWA: 4.0 mg/m <sup>3</sup> | TWA: 3.5 mg/m <sup>3</sup><br>STEL: 3.5 mg/m <sup>3</sup> | TWA: 3.5 mg/m <sup>3</sup><br>STEL: 7 mg/m <sup>3</sup> |

**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.  
**Skin and body protection** Suitable protective clothing.

**Environmental exposure controls** No information available.

## 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>          | black  |                       |                          |

| Property                       | Values              | Remarks • Method         |
|--------------------------------|---------------------|--------------------------|
| pH                             |                     | No information available |
| Melting point / freezing point |                     | No information available |
| Boiling point / boiling range  | 200                 | No information available |
| Flash point                    | 100                 | No information available |
| Evaporation rate               |                     | No information available |
| Flammability (solid, gas)      |                     | No information available |
| Flammability Limit in Air      |                     |                          |
| Upper flammability limit:      |                     | No information available |
| Lower flammability limit:      |                     | No information available |
| Vapor pressure                 |                     | No information available |
| Vapor density                  |                     | No information available |
| Relative density               |                     | No information available |
| Water solubility               | Immiscible in water | No information available |
| Solubility(ies)                |                     | No information available |
| Partition coefficient          |                     | No information available |
| Autoignition temperature       |                     | No information available |
| Decomposition temperature      |                     | No information available |
| Kinematic viscosity            |                     | No information available |
| Dynamic viscosity              |                     | No information available |
| Explosive properties           | Not an explosive    |                          |
| Oxidizing properties           | Not applicable      |                          |

### 9.2. Other information

|                  |                          |
|------------------|--------------------------|
| Softening point  | No information available |
| Molecular weight | No information available |
| VOC Content (%)  | No information available |
| Density          | No information available |
| Bulk density     | 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

None known.

### 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)**                                1,211.00

#### Unknown acute toxicity

97.381 % of the mixture consists of ingredient(s) of unknown toxicity.

15.599 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

20.599 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

95.881 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

97.381 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

92.981 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

| Chemical Name                                    | Oral LD50             | Dermal LD50             | Inhalation LC50 |
|--|-----------------------|-------------------------|-----------------|
| Proprietary Acrylic Ester Derivative             | = 4890 mg/kg ( Rat )  | > 5 g/kg ( Rabbit )     |                 |
| Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide | >5000 mg/kg           | >2000 mg/kg             |                 |
| Black Pigment                                    | > 15400 mg/kg ( Rat ) | > 3 g/kg ( Rabbit )     |                 |
| 2-phenoxyethyl acrylate                          | = 4660 µL/kg ( Rat )  | = 2540 µL/kg ( Rabbit ) |                 |

|   |                      |                         |  |
|---|----------------------|-------------------------|--|
| Oxybis(methyl-2,1-ethanediyl diacrylate | = 4600 mg/kg ( Rat ) | > 2 g/kg ( Rabbit )     |  |
| 1,6-Hexanediol diacrylate               | = 5 g/kg ( Rat )     | = 3600 µL/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 35.2016 % of the mixture consists of component(s) of unknown hazards to the aquatic environment  
 35.2016 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

| Chemical Name                        | Algae/aquatic plants                     | Fish                               | Crustacea                          |
|--------------------------------------|--|------------------------------------|------------------------------------|
| Proprietary Acrylic Ester Derivative | 72 hours: 4.2 mg/l, Algae                | -                                  | -                                  |
| Black Pigment                        | 10000 mg/l / 3 d scenedesmus subspicatus | 1000 mg/l / 96 h Brachydanio rerio | 5600: 24 h Daphnia magna mg/L EC50 |

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

### 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.                          |

## Section 14: TRANSPORT INFORMATION

### IMDG

|  |   |
|--|---|
| <b>14.1 UN/ID no</b>   | UN3082  |
| <b>14.2 Proper Shipping Name</b>   | Environmentally hazardous substance, liquid, n.o.s.   |
| <b>14.3 Hazard Class</b>   | 9   |
| <b>14.4 Packing Group</b>  | III   |
| <b>Description</b>   | UN3082, Environmentally hazardous substance, liquid, n.o.s. (Isobornyl acrylate monomer, diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide), 9, III, Marine Pollutant |
| <b>14.5 Marine pollutant</b>   | Not applicable  |
| <b>14.6 Special Provisions</b>   | 274, 335  |
| <b>EmS-No</b>  | F-A, S-F  |
| <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>             | UN3082                          |
| <b>14.2 Proper Shipping Name</b> | Not regulated                   |
| <b>14.3 Hazard Class</b>         | 9                               |
| <b>14.4 Packing Group</b>        | III                             |
| <b>Description</b>               | &UN3082, & (<TNR00012>), 9, III |
| <b>14.5 Environmental hazard</b> | Not applicable                  |
| <b>14.6 Special Provisions</b>   | None                            |
| <b>Classification code</b>       | M6                              |

### ADR

|                                  |                                      |
|----------------------------------|--------------------------------------|
| <b>14.1 UN/ID no</b>             | UN3082                               |
| <b>14.2 Proper Shipping Name</b> | Not regulated                        |
| <b>14.3 Hazard Class</b>         | 9                                    |
| <b>Labels</b>                    | 9                                    |
| <b>14.4 Packing Group</b>        | III                                  |
| <b>Description</b>               | &UN3082, & (<TNA00012>), 9, III, (E) |
| <b>14.5 Environmental hazard</b> | Not applicable                       |
| <b>14.6 Special Provisions</b>   | 274, 335, 601, 375                   |
| <b>Classification code</b>       | M6                                   |
| <b>Tunnel restriction code</b>   | (E)                                  |

### IATA

|                                  |   |
|----------------------------------|---|
| <b>14.1 UN/ID no</b>             | UN3082  |
| <b>14.2 Proper Shipping Name</b> | Environmentally hazardous substance, liquid, n.o.s.   |
| <b>14.3 Hazard Class</b>         | 9   |
| <b>14.4 Packing Group</b>        | III   |
| <b>Description</b>               | UN3082, Environmentally hazardous substance, liquid, n.o.s. (Isobornyl acrylate monomer, diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide), 9, III |
| <b>14.5 Environmental hazard</b> | Not applicable  |
| <b>14.6 Special Provisions</b>   | A97, A158, A197   |
| <b>ERG Code</b>                  | 9L  |

## 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 |
|---------------|------------------|-------|
| Black Pigment | RG 16, RG 16bis  | -     |

**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)

**Persistent Organic Pollutants**

Not applicable

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

**International Inventories****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**

No information available

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

H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H317 - May cause an allergic skin reaction  
H412 - Harmful to aquatic life with long lasting effects  
H413 - May cause long lasting harmful effects to aquatic life  
H318 - Causes serious eye damage  
H411 - Toxic to aquatic life with long lasting effects  
H302 - Harmful if swallowed  
H373 - May cause damage to organs through prolonged or repeated exposure if inhaled  
H335 - May cause respiratory irritation  
H314 - Causes severe skin burns and eye damage  
H361 - Suspected of damaging fertility or the unborn child if inhaled

**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** 08-Mar-2018

**Revision Date** 08-Mar-2018

**Revision Note** Not applicable.

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

**End of Safety Data Sheet**