# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

**Revision date** 12-Sep-2023 **Revision Number** 2

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1. Product identifier**

**Product Name** Amethyst A50-RIG K

**Pure substance/mixture** Mixture
Contains Isobornyl acrylate monomer, Morpholine, 4-(1-oxo-2-propenyl)-, Oligoamine resin-2-propenoic acid-1,6-hexanediylester, polymer with 2-aminoethanol, 2-(2-ethoxyethoxy)ethyl acrylate

**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**

**Supplier**
NUtec Digital Ink (Pty) Ltd.
1 Clifford Street
Ottery 7800
South Africa
For further information, please contact

**E-mail address** regulatory@nutecdigital.com

**Non-Emergency Telephone Number:**
+27217636990

**1.4. Emergency telephone number**

Emergency Telephone +27217636990
**24 Hour Emergency Phone Number** +27217636990

Emergency: New Zealand 0800 Poison (0800 764 766)
Supplier: Hitec-Ink
Unit 4 / 231 Annex Road
Middleton 8025
Christchurch
Ph 03 6660100

| **Emergency Telephone - §45 - (EC)1272/2008** | |
|---|---|
| **Europe** | **112** |

## 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 2 - (H315) |
| **Serious eye damage/eye irritation** | Category 2 - (H319) |
| **Skin sensitisation** | Category 1 - (H317) |
| **Reproductive toxicity** | Category 1B - (H360D) |
| **Specific target organ toxicity — single exposure** | Category 3 - (H335) |
| **Specific target organ toxicity — repeated exposure** | Category 2 - (H373) |
| **Acute aquatic toxicity** | Category 1 - (H400) |
| **Chronic aquatic toxicity** | Category 3 - (H412) |

**2.2. Label elements**

Contains Isobornyl acrylate monomer, Morpholine, 4-(1-oxo-2-propenyl)-, Oligoamine resin-2-propenoic acid-1,6-hexanediylester, polymer with 2-aminoethanol, 2-(2-ethoxyethoxy)ethyl acrylate

**Signal word**
Danger

**Hazard statements**
H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H360D - May damage the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H412 - Harmful to aquatic life with long lasting effects
EUH208 - Contains 2-phenoxyethyl acrylate, Propoxylated neopentyl glycol, 1,6-Hexanediol diacrylate, n-Butyl Acrylate May produce an allergic reaction.

**Precautionary Statements - EU (§28, 1272/2008)**
P201 - Obtain special instructions before use
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P391 - Collect spillage

**Additional information**
This product requires tactile warnings if supplied to the general public.

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

| Chemical name | Weight-% | REACH registration number | EC No (EU Index No) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|---|---|---|---|---|---|---|---|
| Isobornyl acrylate monomer<br>5888-33-5 | 40 - 50% | 01-2119957862-25-XXXX | (607-756-00-6)<br>227-561-6 | STOT SE 3 (H335)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410) | | | |
| Morpholine, | 20 - 30% | 01-2120102080-83-XX | (613-222-00 | Acute Tox. 4 (H302) | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4-(1-oxo-2-propenyl)-<br>5117-12-4 | | XX | -3)<br>418-140-1 | Eye Dam. 1 (H318)<br>Skin Sens. 1 (H317)<br>STOT RE 2 (H373) | | | |
| Phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide<br>162881-26-7 | 0 - 10% | No data available | (015-189-00-5)<br>423-340-5 | Skin Sens. 1A (H317)<br>Aquatic Chronic 4 (H413) | | | |
| Oligoamine resin-2-propenoic acid-1,6-hexanediyl ester, polymer with 2-aminoethanol<br>67906-98-3 | 0 - 10% | No data available | - | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335) | | | |
| Acrylic Acid ester | 0 - 10% | 01-2120752384-53-XXXX | .? | Acute Tox. 4 (H302)<br>Acute Tox. 3 (H311)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Skin Sens. 1A (H317)<br>Aquatic Chronic 2 (H411) | | | |
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one<br>119313-12-1 | 0 - 10% | No data available | (606-047-00-9)<br>404-360-3 | Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410)<br>Repr. 1B H360D | | | |
| Black Pigment | 0 - 10% | No data available | .? | No data available | | | |
| 2-phenoxyethyl acrylate<br>48145-04-6 | 0 - 10% | No data available | 256-360-6 | Repr. 2 (H361)<br>Skin Sens. 1 (H317)<br>Aquatic Chronic 2 (H411) | | | |
| Propoxylated neopentyl glycol<br>84170-74-1 | 0 - 10% | No data available | 617-546-6 | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Skin Sens. 1 (H317)<br>STOT SE 3 (H335) | | | |
| Oxybis(methyl-2,1-ethanediyl diacylate<br>57472-68-1 | 0 - 10% | Not Applicable | 260-754-3 | Skin Irrit. 2 (H315)<br>Eye Dam. 1 (H318)<br>Skin Sens. 1 (H317) | | | |
| 1,6-Hexanediol diacrylate<br>13048-33-4 | 0 - 10% | Not Applicable | (607-109-00-8)<br>235-921-9 | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Skin Sens. 1 (H317)<br>Aquatic Chronic 2 (H411)<br>Aquatic Acute 1 (H400) | | | |
| n-Butyl Acrylate<br>141-32-2 | 0 - 10% | No data available | (607-062-00-3)<br>205-480-7 | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Skin Sens. 1 (H317)<br>STOT SE 3 (H335)<br>Flam. Liq. 3 (H226) | STOT SE 3 ::<br>C>=10% | | |
| Proprietary Acrylic Ester Derivative | 0 - 10% | No data available | .? | Acute Tox. 3 (H301)<br>Acute Tox. 3 (H311) | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | Eye Dam. 1 (H318) | | | |

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

*Acute Toxicity Estimate*
*If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components*

| Chemical name | Oral LD50 mg/kg | Dermal LD50 mg/kg | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|---|---|---|---|---|---|
| Isobornyl acrylate monomer 5888-33-5 | 4890 | 3000 | | | |
| Morpholine, 4-(1-oxo-2-propenyl)- 5117-12-4 | | 2000 | | | |
| Phenylbis(2,4,6-trimethyl benzoyl)-phosphine oxide 162881-26-7 | 2000 | 2000 | | | |
| Acrylic Acid ester | | 2000<br>1000 | | | |
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one 119313-12-1 | | 2000 | | | |
| Black Pigment | 15400 | | 0.0046 | | |
| 2-phenoxyethyl acrylate 48145-04-6 | 5149.3 | | | | |
| Propoxylated neopentyl glycol 84170-74-1 | | 2000 | | | |
| Oxybis(methyl-2,1-ethanediyl diacylate 57472-68-1 | 4600 | 2000 | | | |
| 1,6-Hexanediol diacrylate 13048-33-4 | 5000 | 3600 | | | |
| n-Butyl Acrylate 141-32-2 | 9050 | 3024 | 10.3 | | |
| Proprietary Acrylic Ester Derivative | 316 | | | | |

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

| Chemical name | CAS No | SVHC candidates |
|---|---|---|
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one | 119313-12-1 | X |

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

| | |
|---|---|
| **General advice** | Show this safety data sheet to the doctor in attendance. |
| **Inhalation** | Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur. |
| **Eye contact** | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists. |
| **Skin contact** | May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. Wash off immediately with soap and plenty of water for at least 15 minutes. |
| **Ingestion** | Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor. |
| **Self-protection of the first aider** | Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). |

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

| | |
|---|---|
| **Symptoms** | Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation. |

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

| | |
|---|---|
| **Note to doctors** | May cause sensitisation in susceptible persons. Treat symptomatically. |

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**

| | |
|---|---|
| **Suitable Extinguishing Media** | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| **Large Fire** | CAUTION: Use of water spray when fighting fire may be inefficient. |
| **Unsuitable extinguishing media** | Do not scatter spilled material with high pressure water streams. |

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

| | |
|---|---|
| **Specific hazards arising from the chemical** | Product is or contains a sensitiser. May cause sensitisation by skin contact. |

**5.3. Advice for firefighters**

| | |
|---|---|
| **Special protective equipment and precautions for fire-fighters** | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |

## SECTION 6: Accidental release measures

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

| | |
|---|---|
| **Personal precautions** | Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| **Other information** | Refer to protective measures listed in Sections 7 and 8. |
| **For emergency responders** | Use personal protection recommended in Section 8. |

**6.2. Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

**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.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

**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** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Remove contaminated clothing and shoes. Avoid breathing vapours or mists.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

**7.3. Specific end use(s)**

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

**Exposure Limits**

| Chemical name | European Union | Austria | Belgium | Bulgaria | Croatia |
|---|---|---|---|---|---|
| Black Pigment | - | - | TWA: 3 mg/m³ | - | TWA: 3.5 mg/m³<br>STEL: 7 mg/m³ |
| n-Butyl Acrylate<br>141-32-2 | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL 10 ppm<br>STEL 53 mg/m³<br>S+ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ | STEL: 10 ppm<br>STEL: 53 mg/m³<br>TWA: 2 ppm<br>TWA: 11 mg/m³ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³<br>*<br>Skin Sensitisation |
| **Chemical name** | **Cyprus** | **Czech Republic** | **Denmark** | **Estonia** | **Finland** |
| Black Pigment | - | TWA: 2.0 mg/m³ | TWA: 3.5 mg/m³<br>STEL: 7 mg/m³ | TWA: 3 mg/m³ | TWA: 3.5 mg/m³<br>STEL: 7 mg/m³ |
| n-Butyl Acrylate | STEL: 10 ppm | TWA: 10 mg/m³ | TWA: 2 ppm | TWA: 2 ppm | TWA: 2 ppm |

| | | | | | |
|---|---|---|---|---|---|
| 141-32-2 | STEL: 53 mg/m³<br>TWA: 2 ppm<br>TWA: 11 mg/m³ | Ceiling: 20 mg/m³<br>D*<br>S+ | TWA: 11 mg/m³<br>STEL: 53 mg/m³<br>STEL: 10 ppm | TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ | TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ |
| Chemical name | France | Germany TRGS | Germany DFG | Greece | Hungary |
| Isobornyl acrylate monomer<br>5888-33-5 | - | - | skin sensitizer | - | - |
| Black Pigment | TWA: 3.5 mg/m³ | - | - | TWA: 3.5 mg/m³<br>STEL: 7 mg/m³ | TWA: 3 mg/m³ |
| 1,6-Hexanediol diacrylate<br>13048-33-4 | - | - | skin sensitizer | - | - |
| n-Butyl Acrylate<br>141-32-2 | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>Sh+<br>H* | TWA: 2 ppm<br>TWA: 11 mg/m³<br>Peak: 4 ppm<br>Peak: 22 mg/m³<br>*<br>skin sensitizer | TWA: 10 ppm<br>TWA: 55 mg/m³ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ |
| Chemical name | Ireland | Italy MDLPS | Italy AIDII | Latvia | Lithuania |
| Black Pigment | TWA: 3 mg/m³<br>STEL: 15 mg/m³ | - | TWA: 3 mg/m³ | - | - |
| n-Butyl Acrylate<br>141-32-2 | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³<br>Sens+ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ | TWA: 2 ppm<br>TWA: 10 mg/m³<br>senD+ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ | STEL: 10 ppm<br>STEL: 53 mg/m³<br>J+<br>TWA: 2 ppm<br>TWA: 11 mg/m³ |
| Chemical name | Luxembourg | Malta | Netherlands | Norway | Poland |
| Black Pigment | - | - | - | TWA: 3.5 mg/m³<br>STEL: 7 mg/m³ | TWA: 4 mg/m³ |
| n-Butyl Acrylate<br>141-32-2 | STEL: 10 ppm<br>STEL: 53 mg/m³<br>TWA: 2 ppm<br>TWA: 11 mg/m³ | STEL: 10 ppm<br>STEL: 53 mg/m³<br>TWA: 2 ppm<br>TWA: 11 mg/m³ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>A+<br>STEL: 4 ppm<br>STEL: 16.5 mg/m³ | STEL: 30 mg/m³<br>TWA: 11 mg/m³ |
| Chemical name | Portugal | Romania | Slovakia | Slovenia | Spain |
| Black Pigment | TWA: 3 mg/m³ | - | TWA: 2 mg/m³<br>TWA: 10 mg/m³ | - | TWA: 3.5 mg/m³ |
| n-Butyl Acrylate<br>141-32-2 | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³<br>Sensitizer dermal | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>S+<br>Ceiling: 53 mg/m³ | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³<br>K* | TWA: 2 ppm<br>TWA: 11 mg/m³<br>STEL: 10 ppm<br>STEL: 53 mg/m³<br>Sen+ |

| Chemical name | Sweden | Switzerland | United Kingdom |
|---|---|---|---|
| Isobornyl acrylate monomer<br>5888-33-5 | - | S+ | - |
| Oligoamine resin-2-propenoic acid-1,6-hexanediylester, polymer with 2-aminoethanol<br>67906-98-3 | - | S+ | - |
| Acrylic Acid ester | - | S+ | - |
| Black Pigment | NGV: 3 mg/m³ | - | TWA: 3.5 mg/m³<br>STEL: 7 mg/m³ |
| 2-phenoxyethyl acrylate<br>48145-04-6 | - | S+ | - |
| Propoxylated neopentyl glycol<br>84170-74-1 | - | S+ | - |
| Oxybis(methyl-2,1-ethanediyl diacylate<br>57472-68-1 | - | S+ | - |
| 1,6-Hexanediol diacrylate | - | S+ | - |

| | | | |
|---|---|---|---|
| 13048-33-4 | | | |
| n-Butyl Acrylate<br>141-32-2 | Bindande KGV: 10 ppm<br>Bindande KGV: 53 mg/m$^3$<br>S+<br>NGV: 2 ppm<br>NGV: 11 mg/m$^3$ | S+<br>TWA: 2 ppm<br>TWA: 11 mg/m$^3$<br>STEL: 4 ppm<br>STEL: 22 mg/m$^3$<br>H* | TWA: 1 ppm<br>TWA: 5 mg/m$^3$<br>STEL: 5 ppm<br>STEL: 26 mg/m$^3$ |

**Biological occupational exposure limits**

| Chemical name | European Union | Austria | Bulgaria | Croatia | Czech Republic |
|---|---|---|---|---|---|
| Black Pigment | - | ( - ) | - | - | - |

**Derived No Effect Level (DNEL)** No information available.
**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls**

**Personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

**Environmental exposure controls** No information available.

## SECTION 9: Physical and chemical properties

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

**Physical state** Liquid
**Appearance** Liquid
**Colour** black
**Odour** Characteristic.
**Odour threshold** No information available

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | No data available | None known |
| **Initial boiling point and boiling range** | 200 °C | None known |
| **Flammability** | No data available | None known |
| **Flammability Limit in Air** | | None known |
| **Upper flammability or explosive limits** | No data available | |
| **Lower flammability or explosive limits** | No data available | |

| | | |
|---|---|---|
| **Flash point** | 100 °C | None known |
| **Autoignition temperature** | No data available | None known |
| **Decomposition temperature** | | None known |
| **pH** | No data available | None known |
| **pH (as aqueous solution)** | No data available | No information available |
| **Kinematic viscosity** | No data available | None known |
| **Dynamic viscosity** | No data available | None known |
| **Water solubility** | Immiscible in water | None known |
| **Solubility(ies)** | No data available | None known |
| **Partition coefficient** | No data available | None known |
| **Vapour pressure** | No data available | None known |
| **Relative density** | No data available | None known |
| **Bulk density** | No data available | |
| **Liquid Density** | No data available | |
| **Relative vapour density** | No data available | None known |
| **Particle characteristics** | | |
| **Particle Size** | No information available | |
| **Particle Size Distribution** | No information available | |

**9.2. Other information**

*9.2.1. Information with regards to physical hazard classes*
Not applicable

*9.2.2. Other safety characteristics*
No information available

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

**Reactivity** No information available.

**10.2. Chemical stability**

**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**

**Conditions to avoid** None known based on information supplied.

**10.5. Incompatible materials**

**Incompatible materials** Strong acids. Strong bases. Strong oxidising agents.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products** None known based on information supplied.

## SECTION 11: Toxicological information

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**Information on likely routes of exposure**

**Product Information**

**Inhalation** Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

**Eye contact** Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

**Skin contact** May cause sensitisation by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.

**Ingestion** Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Harmful if swallowed. (based on components).

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

**Acute toxicity**

**Numerical measures of toxicity**

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

**ATEmix (oral)** 1,321.40 mg/kg
**ATEmix (dermal)** 4,645.60 mg/kg

**Unknown acute toxicity**

8.06 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

**Component Information**

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Isobornyl acrylate monomer | = 4890 mg/kg ( Rat ) | > 3000 mg/kg ( Rabbit ) | - |
| Morpholine, 4-(1-oxo-2-propenyl)- | - | > 2000 mg/kg ( Rat ) | - |
| Phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide | > 2000 mg/kg ( Rat ) | > 2000 mg/kg ( Rat ) | - |
| Acrylic Acid ester | - | > 2000 mg/kg ( Rabbit )<br>1000 - 2000 mg/kg ( Rabbit ) | - |
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one | - | > 2000 mg/kg ( Rat ) | - |
| Black Pigment | > 15400 mg/kg ( Rat ) | - | > 4.6 mg/m$^3$ ( Rat ) 4 h |
| 2-phenoxyethyl acrylate | = 4660 µL/kg ( Rat ) | - | - |
| Propoxylated neopentyl glycol | - | > 2000 mg/kg ( Rat ) | > 2.25 mg/L ( Rat ) 4 h |
| Oxybis(methyl-2,1-ethanediyl diacylate | = 4600 mg/kg ( Rat ) | > 2000 mg/kg ( Rabbit ) | - |
| 1,6-Hexanediol diacrylate | = 5 g/kg ( Rat ) | = 3600 mg/kg ( Rabbit ) | - |
| n-Butyl Acrylate | = 9050 mg/kg ( Rat ) | = 3024 mg/kg ( Rabbit ) | = 10.3 mg/L ( Rat ) 4 h |
| Proprietary Acrylic Ester Derivative | = 316 mg/kg ( Rat ) | - | > 776 ppm ( Rat ) 1 h |

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

**Skin corrosion/irritation** Classification based on data available for ingredients. Causes skin irritation.

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Causes serious eye irritation.

**Respiratory or skin sensitisation** May cause an allergic skin reaction.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

| Chemical name | European Union |
|---|---|
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one | Repr. 1B |

**STOT - single exposure** May cause respiratory irritation.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard** No information available.

**11.2. Information on other hazards**

**11.2.1. Endocrine disrupting properties**

**Endocrine disrupting properties** No information available.

**11.2.2. Other information**

**Other adverse effects** No information available.

## SECTION 12: Ecological information

**12.1. Toxicity**

**Ecotoxicity** Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

**Unknown aquatic toxicity** Contains 41.68 % of components with unknown hazards to the aquatic environment.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---|---|---|---|---|
| Isobornyl acrylate monomer | - | LC50: =0.704mg/L (96h, Danio rerio) | - | - |
| Phenylbis(2,4,6-trimethyl benzoyl)-phosphine oxide | - | LC50: >90µg/L (96h, Danio rerio) | - | - |
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one | - | LC50: =0.46mg/L (96h, Danio rerio) | - | - |
| Propoxylated neopentyl glycol | - | LC50: =2.7mg/L (96h, Danio rerio) | - | - |
| n-Butyl Acrylate | EC50: =5.5mg/L (96h, Pseudokirchneriella subcapitata) | LC50: =5.2mg/L (96h, Oncorhynchus mykiss) | - | EC50: =8.2mg/L (48h, Daphnia magna) |
| Proprietary Acrylic Ester Derivative | - | LC50: >100mg/L (96h, Oncorhynchus mykiss) | - | - |

**12.2. Persistence and degradability**

**Persistence and degradability** No information available.

**12.3. Bioaccumulative potential**

**Bioaccumulation**

**Component Information**

| Chemical name | Partition coefficient |
|---|---|
| Isobornyl acrylate monomer | 4.52 |
| Morpholine, 4-(1-oxo-2-propenyl)- | -0.46 |
| Phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide | 5.8 |
| Acrylic Acid ester | 1.2 |
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one | 2.91 |
| 2-phenoxyethyl acrylate | 2.58 |
| Propoxylated neopentyl glycol | 4.86 |
| Oxybis(methyl-2,1-ethanediyl diacylate | 0.39 |
| 1,6-Hexanediol diacrylate | 2.81 |
| n-Butyl Acrylate | 2.38 |
| Proprietary Acrylic Ester Derivative | -0.3 |

**12.4. Mobility in soil**

**Mobility in soil** No information available.

**12.5. Results of PBT and vPvB assessment**

**PBT and vPvB assessment** No information available.

| Chemical name | PBT and vPvB assessment |
|---|---|
| Isobornyl acrylate monomer | The substance is not PBT / vPvB |
| Morpholine, 4-(1-oxo-2-propenyl)- | The substance is not PBT / vPvB |
| Phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide | The substance is not PBT / vPvB |
| Acrylic Acid ester | The substance is not PBT / vPvB |
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one | The substance is not PBT / vPvB |
| Black Pigment | The substance is not PBT / vPvB |
| 2-phenoxyethyl acrylate | The substance is not PBT / vPvB |
| Oxybis(methyl-2,1-ethanediyl diacylate | The substance is not PBT / vPvB |
| 1,6-Hexanediol diacrylate | The substance is not PBT / vPvB |
| n-Butyl Acrylate | The substance is not PBT / vPvB |
| Proprietary Acrylic Ester Derivative | The substance is not PBT / vPvB |

**12.6. Endocrine disrupting properties**

**Endocrine disrupting properties** No information available.

**12.7. Other adverse effects**

No information available.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

## SECTION 14: Transport information

**IATA**

**14.1 UN number or ID number** UN3082

**14.2 UN proper shipping name** Environmentally hazardous substances, liquid, n.o.s. (2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one)

**14.3 Transport hazard class(es)** 9

| | |
|---|---|
| **14.4 Packing group** | III |
| **Description** | UN3082, Environmentally hazardous substances, liquid, n.o.s. (2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one), 9, III |
| **14.5 Environmental hazards** | Yes |
| **14.6 Special precautions for user** | |
| **Special Provisions** | A97, A158, A197 |
| **ERG Code** | 9L |

**IMDG**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3082 |
| **14.2 UN proper shipping name** | Environmentally hazardous substances, liquid, n.o.s. (2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one) |
| **14.3 Transport hazard class(es)** | 9 |
| **14.4 Packing group** | III |
| **Description** | UN3082, Environmentally hazardous substances, liquid, n.o.s. (2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one), 9, III, Marine pollutant |
| **14.5 Marine pollutant** | P |
| **Environmental hazards** | Yes |
| **14.6 Special precautions for user** | |
| **Special Provisions** | 274, 335, 969 |
| **EmS-No** | F-A, S-F No information available |
| **14.7 Maritime transport in bulk according to IMO instruments** | No information available |

**RID**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3082 |
| **14.2 UN proper shipping name** | Environmentally hazardous substances, liquid, n.o.s. (2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one) |
| **14.3 Transport hazard class(es)** | 9 |
| **14.4 Packing group** | III |
| **Description** | UN3082, Environmentally hazardous substances, liquid, n.o.s. (2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one), 9, III |
| **14.5 Environmental hazards** | Yes |
| **14.6 Special precautions for user** | |
| **Special Provisions** | 274, 335, 375, 601 |
| **Classification code** | M6 |

**ADR**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3082 |
| **14.2 UN proper shipping name** | Environmentally hazardous substances, liquid, n.o.s. (2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one) |
| **14.3 Transport hazard class(es)** | 9 |
| **14.4 Packing group** | III |
| **Description** | UN3082, Environmentally hazardous substances, liquid, n.o.s. (2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one), 9, III, (-) |
| **14.5 Environmental hazards** | Yes |
| **14.6 Special precautions for user** | |
| **Special Provisions** | 274, 335, 601, 375 |
| **Classification code** | M6 |
| **Tunnel restriction code** | (-) |

## SECTION 15: Regulatory information

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

**National regulations**

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

| Chemical name | French RG number | Title |
|---|---|---|
| Black Pigment | RG 16,RG 16bis | - |

| | | |
|---|---|---|
| n-Butyl Acrylate<br>141-32-2 | RG 65 | - |

**Germany**

**Water hazard class (WGK)** obviously hazardous to water (WGK 2)

**Netherlands**

| Chemical name | Netherlands - List of Carcinogens | Netherlands - List of Mutagens | Netherlands - List of Reproductive Toxins |
|---|---|---|---|
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one | - | - | Development Category 1B |

**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.

**Authorisations and/or restrictions on use:**

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

| Chemical name | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|---|---|---|
| Morpholine, 4-(1-oxo-2-propenyl)- - 5117-12-4 | 75. | |
| Phenylbis(2,4,6-trimethylbenzoyl)-phosphine oxide - 162881-26-7 | 75. | |
| 2-Benzyl-2-dimethylamino-1-(4-morpholinphenyl)butan-1-one - 119313-12-1 | 30.<br>75. | |
| Black Pigment - | 75. | |
| 1,6-Hexanediol diacrylate - 13048-33-4 | 75. | |
| n-Butyl Acrylate - 141-32-2 | 75. | |

**Persistent Organic Pollutants**

Not applicable

**Dangerous substance category per Seveso Directive (2012/18/EU)**

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**EU - Plant Protection Products (1107/2009/EC)**

| Chemical name | EU - Plant Protection Products (1107/2009/EC) |
|---|---|
| Black Pigment - | Plant protection agent |

**Biocidal Products Regulation (EU) No 528/2012 (BPR)**

**International Inventories**

| | |
|---|---|
| **TSCA** | Contact supplier for inventory compliance status |
| **DSL/NDSL** | Contact supplier for inventory compliance status |
| **EINECS/ELINCS** | Contact supplier for inventory compliance status |
| **ENCS** | Contact supplier for inventory compliance status |
| **IECSC** | Contact supplier for inventory compliance status |
| **KECL** | Contact supplier for inventory compliance status |
| **PICCS** | Contact supplier for inventory compliance status |
| **AIIC** | Contact supplier for inventory compliance status |

**Legend:**
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AIIC** - Australian Inventory of Industrial Chemicals

**15.2. Chemical safety assessment**

**Chemical Safety Report** No information available

## SECTION 16: Other information

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

**Full text of H-Statements referred to under section 3**
H225 - Highly flammable liquid and vapour
H226 - Flammable liquid and vapour
H301 - Toxic if swallowed
H302 - Harmful if swallowed
H311 - Toxic in contact with skin
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects
H413 - May cause long lasting harmful effects to aquatic life

**Legend**
SVHC: Substances of Very High Concern for Authorisation:

**Legend Section 8: Exposure controls/personal protection**

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

| Classification procedure | |
|---|---|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - vapour | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | On basis of test data |
| Serious eye damage/eye irritation | On basis of test data |
| Respiratory sensitisation | Calculation method |
| Skin sensitisation | On basis of test data |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |

| | |
|---|---|
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration hazard | Calculation method |
| Ozone | Calculation method |

**Key literature references and sources for data used to compile the SDS**
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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**Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)**
**Disclaimer**
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**End of Safety Data Sheet**