

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

1.1. Product identifier

Product form : Mixtures
Product name : 1600 Powerprint UV Retail Display Screen Ink
Product code : 495
Synonyms : This SDS covers all formulations in the range. Not all of the components listed will be present in an individual formulation. Formula specific SDS available on request.

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : PRINTING INK

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

GL Specialized Inks (Pty) Ltd
8 Hawthorne Place
Mahogany Ridge
Westmead
Durban
Telephone: +27 (0)31 700 6455
Fax: +27 (0)31 700 6187

After hours:
082 451 6588 (Jay)
082 780 8837 (Julie)

www.gl-inks.com
jay@gl-inks.com

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Sensitisation — Skin, Category 1	H317
Hazardous to the aquatic environment — Chronic Hazard, Category 3	H412

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning

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Hazardous ingredients	: 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one; 2-HYDROXY-2-METHYLPROPIOPHENONE 70-90%; hexamethylene diacrylate, hexane-1,6-diol diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate; 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate; 2-phenoxyethyl acrylate
Hazard statements (CLP)	: H302 - Harmful if swallowed H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (CLP)	: P261 - Avoid breathing fume, mist, spray, vapours P280 - Wear eye protection, protective clothing, protective gloves P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell P302+P352 - IF ON SKIN: Wash with plenty of soap and water P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P330 - Rinse mouth P362+P364 - Take off contaminated clothing and wash it before reuse P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Titanium Dioxide substance with a Community workplace exposure limit substance with national workplace exposure limit(s) (AT, BE, BG, DE, DK, ES, FR, GB, GR, IT, LT, LV, NL, PT, SE)	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5 (REACH-no) 01-2119489379-17	< 60	Not classified
hexamethylene diacrylate, hexane-1,6-diol diacrylate	(CAS-No.) 13048-33-4 (EC-No.) 235-921-9 (EC Index-No.) 607-109-00-8	10 - 40	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317
2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate	(CAS-No.) 28262-63-7 (EC-No.) 608-181-3	10 - 40	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
2-phenoxyethyl acrylate	(CAS-No.) 48145-04-6. (EC-No.) 256-360-6	10 - 40	Skin Sens. 1, H317
Kaolin substance with national workplace exposure limit(s) (BE, BG, DK, ES, FI, GB, IE, IT, PT)	(CAS-No.) 1332-58-7 (EC-No.) 310-194-1	1 - 40	Not classified
2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate	(CAS-No.) 15625-89-5 (EC-No.) 239-701-3 (EC Index-No.) 607-111-00-9	10 - 40	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317
Calcium carbonate substance with national workplace exposure limit(s) (FR, LV, PL, PT)	(CAS-No.) 471-34-1 (EC-No.) 207-439-9	< 20	Not classified
Triethanolamine	(CAS-No.) 102-71-6 (EC-No.) 203-049-8 (REACH-no) 01-2119486482-31	1 - 10	Eye Irrit. 2, H319 Skin Irrit. 2, H315
Carbon Black substance with national workplace exposure limit(s) (BE, DK, ES, FI, FR, GB, GR, IE, IT, PT, SE)	(CAS-No.) 1333-86-4 (EC-No.) 215-609-9	< 10	Not classified
SILICA substance with national workplace exposure limit(s) (DE, LV)	(CAS-No.) 7631-86-9 (EC-No.) 231-545-4 (REACH-no) 01-2119379499-16	< 10	Not classified
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	(CAS-No.) 75980-60-8 (EC-No.) 278-355-8 (EC Index-No.) 015-203-00-X	< 10	Repr. 2, H361f
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone	(CAS-No.) 119313-12-1 (EC-No.) 404-360-3 (EC Index-No.) 606-047-00-9	1 - 10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	(CAS-No.) 71868-10-5 (EC-No.) 400-600-6 (EC Index-No.) 606-041-00-6	1 - 10	Acute Tox. 4 (Oral), H302 Aquatic Chronic 2, H411
2-HYDROXY-2-METHYLPROPIOPHENONE 70-90%	(CAS-No.) 7473-98-5 (EC-No.) 231-272-0	1 - 10	Acute Tox. 4 (Oral), H302 Aquatic Chronic 3, H412

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Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing fume, mist, spray, vapours.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing fume, mist, spray, vapours.
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Carbon Black (1333-86-4)		
United Kingdom	Local name	Carbon black
United Kingdom	WEL TWA (mg/m ³)	3,5 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	7 mg/m ³
Kaolin (1332-58-7)		
United Kingdom	Local name	Kaolin
United Kingdom	WEL TWA (mg/m ³)	2 mg/m ³ respirable dust
Titanium Dioxide (13463-67-7)		
EU	Local name	Titanium dioxide
EU	Notes	SCOEL Recommendations (Ongoing)
United Kingdom	Local name	Titanium dioxide
United Kingdom	WEL TWA (mg/m ³)	4 mg/m ³ respirable 10 mg/m ³ total inhalable

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Avoid all unnecessary exposure. Safety glasses. Gloves. Protective clothing.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Various.
Odour	: Sweet. slight.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: 0,005 triethanolamine
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 150 °C
Flash point	: > 95 °C
Auto-ignition temperature	: 485 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Combustible liquid
Vapour pressure	: 0,001 kPa
Relative vapour density at 20 °C	: ≤ 5,14
Relative density	: No data available
Density	: 0,95 - 1,4 g/cm ³

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Solubility	: insoluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Lower explosive limit (LEL)	: 1,3 vol %
Upper explosive limit (UEL)	: 10 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

ATE CLP (oral)	1851,852 mg/kg bodyweight
Triethanolamine (102-71-6)	
LD50 oral	8000 mg/kg bodyweight
LD50 dermal	> 10000 mg/kg bodyweight
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 1,8 mg/m ³
Calcium carbonate (471-34-1)	
LD50 oral	> 2000 mg/kg bodyweight
LD50 dermal	> 2000 mg/kg bodyweight
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 3000 mg/l/4h
SILICA (7631-86-9)	
LD50 oral	> 5000 mg/kg bodyweight
LD50 dermal	> 2000 mg/kg bodyweight
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 2080 mg/l/4h
Titanium Dioxide (13463-67-7)	
LD50 oral	> 5000 mg/kg bodyweight
LD50 dermal	> 10000 mg/kg bodyweight
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 6820 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Triethanolamine (102-71-6)	
LC50 fish 1	11800 mg/l
EC50 other aquatic organisms 1	2038 mg/l EC50 waterflea (48 h)
EC50 other aquatic organisms 2	216 mg/l IC50 alga (72 h) mg/l
Calcium carbonate (471-34-1)	
LC50 fish 1	> 100 mg/l
EC50 other aquatic organisms 1	> 100 mg/l EC50 waterflea (48 h)
SILICA (7631-86-9)	
LC50 fish 1	> 10000 mg/l
EC50 other aquatic organisms 1	> 10000 mg/l EC50 waterflea (48 h)
Titanium Dioxide (13463-67-7)	
LC50 fish 1	> 10000 mg/l
EC50 other aquatic organisms 1	> 10000 mg/l EC50 waterflea (48 h)
EC50 other aquatic organisms 2	> 10000 mg/l IC50 alga (72 h) mg/l

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Triethanolamine (102-71-6)	
Log Pow	-1

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Not applicable

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- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Triethanolamine - 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - hexamethylene diacrylate, hexane-1,6-diol diacrylate - 2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate - Triethanolamine - hexamethylene diacrylate, hexane-1,6-diol diacrylate - 2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	1600 Powerprint UV Retail Display Screen Ink - 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 2-HYDROXY-2-METHYLPROPIOPHENONE 70-90% - hexamethylene diacrylate, hexane-1,6-diol diacrylate - 2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate - 2-phenoxyethyl acrylate
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	1600 Powerprint UV Retail Display Screen Ink - 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 2-HYDROXY-2-METHYLPROPIOPHENONE 70-90% - 1600 Powerprint UV Retail Display Screen Ink - 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 2-HYDROXY-2-METHYLPROPIOPHENONE 70-90%

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : Kaolin, diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide are listed

SZW-lijst van mutagene stoffen : Kaolin is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

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Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H361f	Suspected of damaging fertility
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
H412	Harmful to aquatic life with long lasting effects

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product