

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

1.1. Product identifier

Product form : Mixtures
Product name : 1300 Ultraviolet Curable Ink
Product code : 473
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]

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

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

Hazardous ingredients

: 2-phenoxyethyl acrylate; hexamethylene diacrylate, hexane-1,6-diol diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate

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Hazard statements (CLP)	: 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 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 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention 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	20 - 60	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	10 - 40	Not classified
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	10 - 40	Not classified
2-phenoxyethyl acrylate	(CAS-No.) 48145-04-6 (EC-No.) 256-360-6 (REACH-no) 01-2119980532-35-XXXX	1 - 20	Skin Sens. 1, H317 Aquatic Chronic 2, H411
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	1 - 10	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317
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	1 - 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
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
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide	(CAS-No.) 75980-60-8 (EC-No.) 278-355-8 (EC Index-No.) 015-203-00-X	1 - 10	Repr. 2, H361f

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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	: Call a poison center or a doctor if you feel unwell.

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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

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
TITANIUM DIOXIDE (13463-67-7)		
EU	Local name	Titanium dioxide
EU	Notes	SCOEL Recommendations (Ongoing)
Austria	Local name	Titandioxid (Alveolarstaub)
Austria	MAK (mg/m ³)	5 mg/m ³
Austria	MAK Short time value (mg/m ³)	10 mg/m ³
Belgium	Local name	Titane (dioxyde de) # Titaandioxide
Belgium	Limit value (mg/m ³)	10 mg/m ³

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TITANIUM DIOXIDE (13463-67-7)		
United Kingdom	Local name	Titanium dioxide
United Kingdom	WEL TWA (mg/m ³)	4 mg/m ³ respirable 10 mg/m ³ total inhalable

Kaolin (1332-58-7)		
United Kingdom	Local name	Kaolin
United Kingdom	WEL TWA (mg/m ³)	2 mg/m ³ respirable dust

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:

Eye protection should only be necessary where liquid could be splashed or sprayed

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)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 150 °C
Flash point	: > 95 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Combustible liquid
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0,95 - 1,4 g/cm ³
Solubility	: insoluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available

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Oxidising properties : No data available

Explosive limits : No data available

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 : Not classified

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
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

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

SECTION 12: Ecological information

12.1. Toxicity

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

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 algae (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)

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SILICA (7631-86-9)	
LC50 fish 1	> 10000 mg/l
EC50 other aquatic organisms 1	> 10000 mg/l EC50 waterflea (48 h)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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

- 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

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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	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 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	1300 Ultraviolet Curable Ink - 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 2-HYDROXY-2-METHYLPROPIOPHENONE 70-90% - 2-phenoxyethyl acrylate - hexamethylene diacrylate, hexane-1,6-diol diacrylate - 2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate
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	1300 Ultraviolet Curable Ink - 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 2-HYDROXY-2-METHYLPROPIOPHENONE 70-90% - 2-phenoxyethyl acrylate

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

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

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 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

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H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H361f	Suspected of damaging fertility
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