

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

1.1 Product identifier

Product code : VW1750XSXSBJ
Product name : ULTRAKING 6100 FAST CURE;Process Cyan

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

Product use : Printing ink or Additive
Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Distributor : Flint Group UK Ltd
Old Heath Road
GB Wolverhampton
WVI 2QT
UNITED KINGDOM
e-mail address of person responsible for this SDS : compliancecentre@flintgrp.com

1.4 Emergency telephone number (with hours of operation)

+44 (1902) 87 10 28 (8:00 h - 17:00 h)


History

Date of printing : 09.06.2015.
Date of issue/ Date of revision : 02.05.2015.
Date of previous issue : No previous validation.
Version : 1

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
SKIN CORROSION/IRRITATION - Category 2
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 3


See Section 11 for more detailed information on health effects and symptoms.


2.2 Label elements

Hazard pictograms :



Signal word :  Warning

Hazard statements :  H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements :  P280 - Wear protective gloves or clothing and eye or face protection.
P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes.
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

ULTRAKING 6100 FAST CURE;Process Cyan**SECTION 2: Hazards identification**

Supplemental label elements	: <input checked="" type="checkbox"/> Not applicable.
Hazardous ingredients	: <input checked="" type="checkbox"/> EpoxiacrylateBisphenol A diglycidyl ether di-acrylate (BADGE-DA) Polyester acrylate glycerol propoxy triacrylate 2-propenoic acid reaction products with pentaerythritol
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.

2.3 Other hazards

PBT	: P: Not available. B: Not available. T: Not available.
vPvB	: vP: Not available. vB: Not available.

SECTION 3: Composition/information on ingredients3.2 Mixtures : ☒ Mixture

Product/ingredient name	Identifiers	%	<u>Classification</u>	Type
			Regulation (EC) No. 1272/2008 [CLP]	
<input checked="" type="checkbox"/> EpoxiacrylateBisphenol A diglycidyl ether di-acrylate (BADGE-DA)	REACH #: 01-2119490020-53 EC: 500-130-2 CAS: 55818-57-0	>=1 - <25	Skin Sens. 1, H317 Aquatic Chronic 4, H413	[1]
Polyester acrylate	-	>=10 - <20	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
glycerol propoxy triacrylate	REACH #: 01-2119487948-12 EC: 500-114-5 CAS: 52408-84-1	>=10 - <20	Eye Irrit. 2, H319 Skin Sens. 1, H317	[1]
phenyl-2-hydroxy-2-propylketone	EC: 231-272-0 CAS: 7473-98-5	>=3 - <7	Acute Tox. 4, H302 Aquatic Chronic 3, H412	[1]
2-propenoic acid reaction products with pentaerythritol	REACH #: 01-2119490003-49 CAS: 1245638-61-2	>=2.5 - <3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone	REACH #: 01-2119382381-40 EC: 404-360-3 CAS: 119313-12-1 Index: 606-047-00-9	>=0.25 - <2.5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

SECTION 3: Composition/information on ingredients

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|-----------------------------------|---|---|
| General | : | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice. |
| Inhalation | : | Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |
| Skin contact | : | Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin. |
| Eye contact | : | Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention/advice. |
| Ingestion | : | Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Give nothing by mouth. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Protection of first-aiders | : | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

Use suitable protective equipment (section 8).

4.2 Most important symptoms and effects, both acute and delayed

See toxicological information (Section 11)

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|----------------------------|---|---|
| Notes to physician | : | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Specific treatments | : | No specific treatment. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|------------------------------------|---|---|
| Suitable Extinguishing media | : | Recommended: alcohol-resistant foam, CO ₂ , powders, water spray |
| Extinguishing media not to be used | : | Do not use water jet. |

5.2 Special hazards arising from the substance or mixture

- | | | |
|--|---|---|
| Hazards from the substance or mixture | : | In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous thermal decomposition products | : | Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. |

SECTION 5: Firefighting measures

Decomposition products may include the following materials:

carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

5.3 Advice for fire-fighters

- Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters : Do not release runoff from fire to drains or watercourses.
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 13 for additional waste treatment information.
See Section 8 for information on appropriate personal protective equipment.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.

Use only in well-ventilated areas. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with all local, regional, national and international regulations.
Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10).
Observe label precautions. Keep container tightly closed and in a well-ventilated place.
Keep away from sources of ignition - No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

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SECTION 7: Handling and storage

Storage temperature: 20 to 25°C

7.3 Specific end use(s)

Not applicable.

7.4 Additional information

Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits : Not applicable.

Other Exposure limits : CMR: See toxicological information (Section 11)

Recommended monitoring procedures : ☒ If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

☒ No DNELs/DMELs available.

PNECs

☒ No PNECs available.

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

Individual protection measures

Hygiene measures : ☒ Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection : ☒ Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Body protection : ☒ Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Gloves : ☒ For prolonged or repeated handling, use the following type of gloves:
4 - 8 hours polyethylene (PE) or Viton® Gloves.

References: <http://www.esig.org/en/library/publications/best-practice-guides>

Not recommended : PVC gloves.

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SECTION 8: Exposure controls/personal protection

- Other skin protection** : ☒ Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Eye/face protection** : Use safety eyewear designed to protect against splash of liquids.
- Environmental exposure controls**
Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Blue.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : $\geq 100\text{ }^{\circ}\text{C}$
- Flash point** : Closed cup: $> 100^{\circ}\text{C}$ [theoretical]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not applicable.
- Burning time** : Not applicable.
- Burning rate** : Not applicable.

Explosion limits

- Lower:** : ☒ Not applicable.
- Upper:** : Not available.

- Vapor pressure** : $< 0.1\text{ hPa}$
- Vapor density** : Not available.
- Density** : $\sim 1.1\text{ g/cm}^3$
- Solubility** : insoluble in water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : ☒ ca $113\text{ }^{\circ}\text{C}$
- Decomposition temperature** : Not available.
- Viscosity** : ☒ Kinematic (20°C (68°F)): $> 2.2\text{ cm}^2/\text{s}$ ($> 220\text{ cSt}$)
Kinematic (40°C (104°F)): $> 0.2\text{ cm}^2/\text{s}$ ($> 20\text{ cSt}$)
- Explosive properties** : Not available.
- Oxidizing properties** : Not available.

9.2 Other information

- SADT** : Not available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not available.

10.2 Chemical stability

This mixture contains materials which are unstable under the following conditions: exposure to heat strong UV sources

10.3 Possibility of hazardous reactions

- ☒ Under normal conditions of storage and use, hazardous reactions will not occur.

SECTION 10: Stability and reactivity**10.4 Conditions to avoid**

When exposed to high temperatures may produce hazardous decomposition products. These could cause the product to polymerize exothermically. Unintentional contact with them should be avoided.

This mixture contains materials which are unstable under the following conditions: exposure to heat, strong UV sources. These could cause the product to polymerize exothermically. Unintentional contact with them should be avoided.

10.5 Incompatible materials

Keep away from:

strong alkalis, free radical initiators, peroxides, reactive metals

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**

There are no data available on the mixture itself. The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended. See sections 2 and 3 for details.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Acrylate components of the mixture have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. If splashed in the eyes, the liquid may cause irritation and reversible damage. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects.

Substances / Mixtures

Acute toxicity :

Product/ingredient name	Result	Species	Dose	Exposure
phenyl-2-hydroxy-2-propylketone	LD50 Dermal	Rat	6929 mg/kg	-
	LD50 Oral	Rat	1694 mg/kg	-

Acute toxicity estimates

Route	ATE value
Oral	12734.4 mg/kg

Irritation/Corrosion : Causes eye irritation. Irritating to skin.

Sensitization : May produce an allergic reaction. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Cases of hypersensitivity may occur, possibly with cross-sensitization to other acrylate materials.

Mutagenicity : Not available.

Carcinogenicity : Not available.

Reproductive toxicity : Not available.

Specific target organ toxicity (single exposure) : Not available.

Specific target organ toxicity (repeated exposure) : Not available.

Aspiration hazard : Not available.

Chronic toxicity : Not available.

Teratogenicity : Not available.

Other information**Toxicokinetics**

Absorption : Not available.

Distribution :

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SECTION 11: Toxicological information

Metabolism : Not available.

Elimination : Not available.

SECTION 12: Ecological information

There are no data available on the mixture itself. This material is harmful to aquatic life with long lasting effects. Do not empty into drains or watercourses. See Sections 2 and 3 for details.

12.1 Toxicity data

Not available.

12.2 Persistence/degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Not available.

12.5 Results of PBT and vPvB assessment

PBT : P: Not available. B: Not available. T: Not available.

vPvB : vP: Not available. vB: Not available.

12.6 Other adverse effects

AOX : The product contains organically bound halogens and can contribute to the AOX value in waste water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Do not allow to enter drains or watercourses.

Dispose of according to all federal, state and local applicable regulations.

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste : ☒ Yes.

European waste catalogue (EWC)

Waste code	Waste designation
08 03 12*	Waste ink containing dangerous substances

SECTION 14: Transport information

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

International transport regulations

This product is not regulated for carriage according to ADR/RID, IMDG, ICAO/IATA.

14.1 UN number : Not applicable.

14.2 Proper shipping name : Not applicable.

14.3 Transport hazard class(es) : Not applicable.

14.4 Packing group : Not applicable.

14.5 Environmental hazards : Not applicable.

14.6 Special precautions for user : Not applicable.

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SECTION 14: Transport information

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

VOC content : < 0,5 %

Europe inventory : All components are listed or exempted.

National regulations

Industrial use : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

CEPE MSDS Code : 4

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
<p>Eye Irrit. 2, H319</p> <p>Skin Irrit. 2, H315</p> <p>Skin Sens. 1, H317</p> <p>STOT SE 3, H335 (Respiratory tract irritation)</p> <p>Aquatic Chronic 3, H412</p>	<p>Calculation method</p> <p>Calculation method</p> <p>Calculation method</p> <p>Calculation method</p> <p>Calculation method</p>

SECTION 16: Other information

Full text of abbreviated H statements	:	H302	Harmful if swallowed.
		H315	Causes skin irritation.
		H317	May cause an allergic skin reaction.
		H318	Causes serious eye damage.
		H319	Causes serious eye irritation.
		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.
		H413	May cause long lasting harmful effects to aquatic life.

Date of printing : 6/9/2015.

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Date of previous issue : No previous validation.

Version : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.