

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

1.1 product identifier

Product code : VW205QRG01
 Product name : Ultraking;Blue 072

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 : compliance centre@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 : 07.10.2014.
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 Date of previous issue : 18.02.2014.
 Version : 9

2. HAZARDS IDENTIFICATION

Classification and labeling according to Regulation (EC) 1907/2006 (REACH)

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

2.1b Classification of the substance or mixture

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Xi; R36/38
 R43
 R52/53

 Physical/chemical hazards : Not applicable.
 Human health hazards : Irritating to eyes and skin. May cause sensitization by skin contact.
 Environmental hazards : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2b Label elements

Hazard symbol or symbols : 

Irritant

Risk phrases : R36/38- Irritating to eyes and skin.
 R43- May cause sensitization by skin contact.
 R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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2. HAZARDS IDENTIFICATION

- Safety phrases** : S23- Do not breathe gas, fumes or vapor.
 S24- Avoid contact with skin.
 S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S37- Wear suitable gloves.
 S60- This material and its container must be disposed of as hazardous waste.
- Contains** : glycerol propoxy triacrylate
 Epoxiacrylate
 2-propenoic acid reaction products with pentaerythritol

2.3 Other hazards which do not result in classification

Results of PBT and vPvB assessment: See sections 12 for details.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC.

Chemical name	%	REACH Registration number	CAS number	EC number	Classification
Polyester acrylate	>=20 - <25				Xi; R36/38 [1]
glycerol propoxy triacrylate	>=10 - <20	01-2119487948-12	52408-84-1	500-114-5	Xi; R36 R43 [1]
Epoxiacrylate	>=1 - <25	01-2119490020-53	55818-57-0	500-130-2	R43 R53 [1]
Soybean oil, epoxidized, acrylate	>=5 - <10		91722-14-4	294-415-6	Xi; R36 [1]
2-propenoic acid, 2-[[2,2-bis[[(1-oxo-2-propenyl)oxy]methyl] butoxy]methyl]-2-ethyl-1, 3-propanediyl ester	>=2.5 - <25	01-2119977121-41	94108-97-1		N; R51/53 [1]
2-propenoic acid reaction products with pentaerythritol	>=3 - <5	01-2119490003-49	1245638-61-2		Xn; R22 Xi; R41, R38 R43 N; R51/53 [1]
phenyl-2-hydroxy-2-propylketone	>=2.5 - <3		7473-98-5	231-272-0	Xn; R22 R52/53 Xi; R36 [1]
pentaerythritol tetraacrylate, alcoxilated	>=1 - <5				N; R50/53 [1]
2-benzyl-2-dimethylamino- 4-morpholinobutyrophenone	>=0.25 - <2.5	01-2119382381-40	119313-12-1	404-360-3	N; R50/53 [1]
Pentaerythritol, ethoxylated, esters with acrylic acid	>=1 - <2.5	01-2119969962-19	51728-26-8		Xi; R36/38 N; R51/53 [1]
acrylic acid	>=0.1 - <1	01-2119452449-31	79-10-7	201-177-9	R10 Xn; R20/21/22 C; R35 N; R50 [1]

See Section 16 for the full text of the R-phrases declared above.

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 and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] PBT-substance

[4] vPvB-substance

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

Chemical name	CAS number	Hazard statements	Classification
Polyester acrylate		Causes serious eye irritation. Causes skin irritation.	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
glycerol propoxy triacrylate	52408-84-1	Causes serious eye irritation. May cause an allergic skin reaction.	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 SKIN SENSITIZATION - Category 1
Epoxiacrylate	55818-57-0	May cause an allergic skin reaction. May cause long lasting harmful effects to aquatic life.	SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 4
Soybean oil, epoxidized, acrylate	91722-14-4	Causes serious eye irritation.	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
2-propenoic acid, 2-[[2,2-bis[[[1-oxo-2-propenyl]oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl ester	94108-97-1	Causes serious eye irritation. Toxic to aquatic life with long lasting effects.	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2
2-propenoic acid reaction products with pentaerythritol	1245638-61-2	Harmful if swallowed. Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2
phenyl-2-hydroxy-2-propylketone	7473-98-5	Harmful if swallowed. Harmful to aquatic life with long lasting effects.	ACUTE TOXICITY (oral) - Category 4 AQUATIC HAZARD (LONG-TERM) - Category 3
pentaerythritol tetraacrylate, alcoxilated		Causes serious eye irritation.	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone	119313-12-1	Very toxic to aquatic life with long lasting effects.	AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1
Pentaerythritol, ethoxylated, esters with acrylic acid	51728-26-8	Causes serious eye irritation. Causes skin irritation. Toxic to aquatic life with long lasting effects.	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2
acrylic acid	79-10-7	Flammable liquid and vapor. Harmful if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause respiratory irritation. Very toxic to aquatic life.	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 1A SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 AQUATIC HAZARD (ACUTE) - Category 1

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4. FIRST AID MEASURES

4.1 Description of first aid measures

- 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** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Give nothing by mouth. Do NOT induce vomiting.

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

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.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

- Suitable Extinguishing media** : Recommended:, alcohol-resistant foam, CO₂, powders, water spray
- Extinguishing media not to be used** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

5.3 Advice for fire-fighters

Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Exclude sources of ignition and ventilate the area.

Avoid breathing vapor or spray. Refer to protective measures listed in sections 7 and 8.

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

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

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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 inhalation of vapor, spray or mist. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. 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.

7.3 Specific end use(s)

Not applicable.

7.4 Additional information

Not applicable.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits : Not applicable.

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

DNELs

Ingredient name	Exposure	DNELs	Population	Effects
glycerol propoxy triacrylate	Long term Dermal	1.92 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	16.22 mg/m ³	Workers	Systemic
	Long term Oral	1.39 mg/kg bw/day	Consumers	Systemic
	Long term Dermal	1.15 mg/kg bw/day	Consumers	Systemic
	Long term Inhalation	4.87 mg/m ³	Consumers	Systemic

PNECs

Ingredient name	Compartment Detail	PNECs	Method Detail
glycerol propoxy triacrylate	Soil	0.00111 mg/kg	-
	Fresh water	0.00574 mg/l	-
	Fresh water sediment	0.01697 mg/kg	-
	Marine	0.000574 mg/l	-
	Marine water sediment	0.001697 mg/kg	-
	Sewage Treatment Plant	10 mg/kg	-

8.2 Exposure controls

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

Respiratory system : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Skin and body** : Personnel should wear protective clothing.
- Hands** : The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
For prolonged or repeated handling, use the following type of gloves:

Recommended:
4 - 8 hours: polyethylene (PE) or Viton® gloves.

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

Not recommended : PVC gloves.
- Eyes** : Use safety eyewear designed to protect against splash of liquids.
- Environmental exposure controls**
Do not allow to enter drains or watercourses.

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 available.
- Upper:** : Not available.
- Vapor pressure** : $< 0.1\text{ hPa}$
- Vapor density** : Not available.
- Density** : $\sim 1\text{ g/cm}^3$
- Solubility** : insoluble in water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : ca 250 °C
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (20°C (68°F)): $>4\text{ cm}^2/\text{s}$ ($>400\text{ cSt}$)
Kinematic (40°C (104°F)): $>0.07\text{ cm}^2/\text{s}$ ($>7\text{ cSt}$)
- Explosive properties** : Not available.
- Oxidizing properties** : Not available.

9.2 Other information

- SADT** : Not available.

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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

Not available.

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.

10.5 Incompatible materials

Keep away from:

strong alkalis, free radical initiators, peroxides, reactive metals

10.6 Hazardous decomposition products

Decomposition products may include the following materials:

carbon monoxide, carbon dioxide, smoke, oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. 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	-

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

Sensitization : Contains Sensitizing material . May produce an allergic reaction. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. See sections 2 and 3 for details.
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.

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11. TOXICOLOGICAL INFORMATION

Other information

Toxicokinetics

- Absorption** : Not available.
- Distribution** : Contains material which may cause damage to the following organs: lungs, cardiovascular system, upper respiratory tract, eyes.
- Metabolism** : Not available.
- Elimination** : Not available.

12. ECOLOGICAL INFORMATION

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 2 and 3 for details.

12.1 Toxicity data

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> Acrylic acid	Chronic NOEC 3.8 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days

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.

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.
- European waste catalogue (EWC)** : The European Waste Catalogue classification of this product, when disposed of as waste, is: 08 03 12* waste ink containing dangerous substances If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.
- Hazardous waste** : Yes.

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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

- 14.1 UN number** : Not available.
14.2 Proper shipping name : Not available.
14.3 Transport hazard class(es) : Not available.
14.4 Packing group :
14.5 Environmental hazards : Not applicable.
14.6 Special precautions for user : Not applicable.

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

Not applicable.

Additional information

ADR ADN

- Classification code** :
Special provisions : Not available.
Hazard identification number : Not available.
ADR Tunnel Code: : Not applicable.
Limited quantity :

IMDG

- Emergency schedules (EmS)** : Not available.
Marine pollutant : Not applicable.
Limited quantity :

IATA

- | | Max. Qty | Packaging instruction |
|-------------------------------------|----------|-----------------------|
| Passenger and Cargo Aircraft | L | |
| Cargo Aircraft Only | L | |
| Limited quantity | L | |

15. REGULATORY INFORMATION

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

- EU regulations** : The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
 See sections 2 and 3 for details.
- VOC content** : 0,5 %
- Europe inventory** : All components are listed or exempted.
- 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.

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16. OTHER INFORMATION

CEPE MSDS Code : 4

Full text of R-phrases referred to in sections 2 and 3 - Europe

R10- Flammable.

R22- Harmful if swallowed.

R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.

R35- Causes severe burns.

R41- Risk of serious damage to eyes.

R36- Irritating to eyes.

R38- Irritating to skin.

R36/38- Irritating to eyes and skin.

R43- May cause sensitization by skin contact.

R50- Very toxic to aquatic organisms.

R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R53- May cause long-term adverse effects in the aquatic environment.

The information in this Safety Data Sheet is required pursuant to Annex II to Regulation (EC) No 1907/2006.

Date of issue/Date of revision : 9/12/2014.

Version : 9

Indicates information that has changed from previously issued version.

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.