

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 04/01/2021 Revision date: 17/04/2025 Supersedes: 02/04/2025 Version: 4.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Trade name : Durable UV80 - Black

1.2. Other means of identification

Other means of identification : DLPDBBK01, DLPDBBK05, DLPDBBK500

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : For use in UV Printers, For use in DLP Printers

1.4. Supplier's details

Manufacturer

Photocentric Ltd
Titan House
20 Titan Drive
Peterborough, PE1 5XN, Cambridgeshire
United Kingdom
T +44 (0) 1733 349937 (UK Office hours only)
info@photocentric.co.uk - <https://photocentricgroup.com/>

Distributor

Photocentric Inc
855 N. 107th Ave
Suite A110
Avondale, Arizona, AZ, 85323
United States
T 006235813220 x1009 (USA Office hours only)
customerservice@photocentricusa.com - <https://photocentricgroup.com/>

1.5. Emergency phone number

Emergency number : +44 (0) 1733 349937 (UK Office hours only) 006235813220
x1009 (USA Office hours only)

Transport Emergencies for US & CANADA: For Hazardous Materials [or Dangerous Goods]
Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC 1-800-424-9300 / +1 703-527-3887 CCN 992854

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Hazardous to the aquatic environment — Chronic Hazard, Category 3	H412	Harmful to aquatic life with long lasting effects.
Full text of H statements : see section 16		

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H302 - Harmful if swallowed
H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS US) : P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.

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P301+P312 - If swallowed: Call a doctor if you feel unwell.

P330 - Rinse mouth.

P501 - Dispose of hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

Other hazards which do not result in classification : None under normal conditions.

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Conc. (% w/w)	GHS US classification
Proprietary (Monomer)	≥ 25 – < 50	Acute Tox. 4 (Oral), H302
Proprietary (Aliphatic urethane methacrylate)	≥ 3 – < 5	Aquatic Chronic 2, H411
Proprietary (Photoinitiator)	≥ 1 – < 3	Aquatic Chronic 1, H410
Proprietary (Acrylate)	< 0.1	Not classified
Proprietary (Acrylic Ester)	< 0.1	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. Call a poison center/doctor/physician 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	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: If swallowed, seek medical advice immediately and show this container or label. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Rinse mouth out with water. Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Potential Adverse human health effects and symptoms	: Harmful if swallowed. Harmful in contact with skin. Irritation: severely irritant to eyes. Irritation: may cause irritation to the respiratory system.
Symptoms/effects	: May be harmful if inhaled. May be harmful in contact with skin.
Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact	: May be harmful in contact with skin.

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Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause irritation to the digestive tract.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically. In all cases of doubt, or when symptoms persist, seek medical attention. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: In case of fire, corrosive gases come free. In case of fire and/or explosion do not breathe fumes.
Explosion hazard	: No data available on direct explosion hazard.
Reactivity in case of fire	: Corrosive vapors.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire	: Keep away from combustible materials. Keep container closed when not in use. Store in tightly closed, properly ventilated containers away from heat, sparks, open flame.
Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: High temperature decomposition products are harmful by inhalation.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid contact with skin and eyes. Clean up any spills as soon as possible, using an absorbent material to collect it. Do not handle until all safety precautions have been read and understood. Evacuate area. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. For further information refer to section 8: "Exposure controls/personal protection".

For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. Use self-contained breathing apparatus and chemically protective clothing. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Ventilate area. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Stop leak if safe to do so.
Environmental precautions	: Avoid release to the environment. Prevent liquid from entering sewers, watercourses, underground or low areas.

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6.2. Methods and materials for containment and cleaning up

For containment	: For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Collect spillage. Stop leak, if possible without risk.
Methods for cleaning up	: Take up liquid spill into absorbent material. This material and its container must be disposed of in a safe way, and as per local legislation.
Other information	: Dispose of materials or solid residues at an authorized site.

For further information refer to section 8: "Exposure controls/personal protection", 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. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure that there is a suitable ventilation system. Do not handle in a confined space. Protective clothing (with elasticated cuffs and closed neck). Do not breathe vapors. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Hygiene measures	: Wear personal protective equipment. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Handling temperature	: 10 – 50 °C
Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store in a well-ventilated place. Keep cool.
Storage area	: Store away from heat. Store in a well-ventilated place.
Storage temperature	: 10 – 50 °C
Specific end uses	: SDS section 1.2.1 - Additional text.
Packaging materials	: Do not store in corrodable metal. Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment. Safety glasses. Gloves.

Materials for protective clothing:

Wear suitable protective clothing and gloves. Nitrile rubber. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.

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Hand protection:

Protective gloves. Wear protective gloves. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Nitrile-rubber protective gloves

Eye protection:

Safety glasses. Safety glasses (EN 166). Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing. Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact. Protective clothing (EN 14605 or EN 13034). Use footwear with anti-static or anti-spark features

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. In case of inadequate ventilation wear respiratory protection. Wear suitable respiratory protection (conforming to EN140 with Type A filter or better) and gloves (type EN374) if regular skin contact likely.

Personal protective equipment symbol(s):



Thermal hazard protection:

Typical measures to maintain workplace concentrations of airborne VOCs and particulates below respective OELs: e.g. thermal wet scrubber – gas removal and/or air filtration – particle removal and/or thermal oxidation and/or vapour recovery – adsorption.

Other information:

Do not eat, drink or smoke when using this product.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Black
Odor	: Characteristics
Odor threshold	: No data available
pH	: No data available
pH solution	: ≈ 7
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.1 g/ml
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 363.636 mm ² /s
Viscosity, dynamic	: 400 (300 – 500) mPa·s
Explosion limits	: No data available
Particle characteristics	: No data available

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Proprietary (Monomer)

Particle characteristics	No data available
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Proprietary (Aliphatic urethane methacrylate)

Particle characteristics	No data available
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Proprietary (Photoinitiator)

Particle characteristics	No data available
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Proprietary (Acrylate)

Particle characteristics	No data available
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Proprietary (Acrylic Ester)

Particle characteristics	No data available
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9.2. Data relevant with regard to physical hazard classes (supplemental)

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 of use.

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

No hazardous decomposition products known at room temperature.

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Durable UV80 - Black	
ATE US (oral)	826.537 mg/kg body weight
Proprietary (Monomer)	
LD50 oral rat	300 – 2000 mg/kg body weight OECD Guideline 423
LD50 dermal rat	> 2000 mg/kg body weight OECD Guideline 423
ATE US (oral)	300 mg/kg body weight
Proprietary (Aliphatic urethane methacrylate)	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bw/day
LC50 Inhalation - Rat (Dust/Mist)	> 5 mg/l/4h
Proprietary (Photoinitiator)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: EU Method B.1 (Acute Toxicity (Oral))
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: other:92/69/EEC
Skin corrosion/irritation	: Not classified
Proprietary (Monomer)	
pH	7.5
Serious eye damage/irritation	: Not classified
Proprietary (Monomer)	
pH	7.5
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Proprietary (Photoinitiator)	
NOAEL (oral,rat,90 days)	> 1000 mg/kg body weight Animal: rat, Guideline: other:92/69/eec
Aspiration hazard	: Not classified
Durable UV80 - Black	
Viscosity, kinematic	363.636 mm²/s
Proprietary (Monomer)	
Viscosity, kinematic	4 mm²/s
Proprietary (Aliphatic urethane methacrylate)	
Viscosity, kinematic	No data available
Proprietary (Photoinitiator)	
Viscosity, kinematic	No data available

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Proprietary (Monomer)	
Proprietary (Acrylate)	
Viscosity, kinematic	No data available
Proprietary (Acrylic Ester)	
Viscosity, kinematic	No data available
Potential Adverse human health effects and symptoms	: Harmful if swallowed. Harmful in contact with skin. Irritation: severely irritant to eyes. Irritation: may cause irritation to the respiratory system.
Symptoms/effects	: May be harmful if inhaled. May be harmful in contact with skin.
Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact	: May be harmful in contact with skin.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause irritation to the digestive tract.
Other information	: Likely routes of exposure: ingestion, skin and eye.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general	: Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
Ecology - water	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Proprietary (Monomer)	
LC50 - Fish [1]	120 mg/l Brachydanio rerio (OECD 203; ISO 7346; 84/449/EEC, C.1, static)
EC50 - Crustacea [1]	> 120 mg/l Daphnia magna (OECD Guideline 202, part 1, static)
EC50 72h - Algae [1]	> 120 mg/l Pseudokirchneriella subcapitata (OECD Guideline 201, static)

Proprietary (Aliphatic urethane methacrylate)	
LC50 - Fish [1]	≥ 10.1 mg/l Zebra Fish (Brachydanio rerio)
EC50 - Crustacea [1]	> 1200 µg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 0.68 mg/l
NOEC chronic algae	0.21 mg/l Green Algae (Desmodesmus subspicatus)

Proprietary (Photoinitiator)	
LC50 - Fish [1]	> 0.09 mg/l Test organisms (species): other:Zebra Fish Brachydanio rerio
EC50 - Crustacea [1]	> 1.175 mg/l Test organisms (species): other aquatic crustacea:Daphnia Magna
EC50 72h - Algae [1]	> 0.26 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

Durable UV80 - Black	
Persistence and degradability	Not rapidly degradable
Proprietary (Monomer)	
Persistence and degradability	Product is practically not biodegradable.

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Proprietary (Aliphatic urethane methacrylate)	
Persistence and degradability	Not established.
Biodegradation	22 % CO2 Evolution: Modified Sturm (OECD 301B)
Proprietary (Photoinitiator)	
Persistence and degradability	Not rapidly degradable
Proprietary (Acrylate)	
Persistence and degradability	Not rapidly degradable
Proprietary (Acrylic Ester)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

Proprietary (Monomer)	
Partition coefficient n-octanol/water (Log Pow)	0.8
Proprietary (Aliphatic urethane methacrylate)	
Partition coefficient n-octanol/water (Log Pow)	3.39
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Fluorinated greenhouse gases	: No
Other information	: Avoid release to the environment.

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Avoid release to the environment. Comply with applicable regulations for solid waste disposal. Dispose in a safe manner in accordance with local/national regulations. Disposal must be done according to official regulations.
Additional information	: Clean up even minor leaks or spills if possible without unnecessary risk. Consult an expert on waste disposal or treatment. Do not re-use empty containers.
Ecological waste information	: Avoid release to the environment.

SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

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14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated
Proper Shipping Name (TDG) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not regulated

TDG

Transport hazard class(es) (TDG) : Not regulated

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated
Packing group (TDG) : Not regulated
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not regulated

TDG

Not regulated

IMDG

Not regulated

IATA

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Proprietary (Acrylate)	< 0.1%
Proprietary (Acrylic Ester)	< 0.1%

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This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

Proprietary (Monomer)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Proprietary (Aliphatic urethane methacrylate)

Listed on the Canadian NDSL (Non-Domestic Substances List)

Proprietary (Photoinitiator)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Proprietary (Photoinitiator)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 17/04/2025

Issue date : 04/01/2021

Full text of hazard classes and H-statements

H302	Harmful if swallowed
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 US (GHS HazCom 2012) No CAS

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.