

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Rigid UV240 Plant-Based

1.2. Recommended use and restrictions on use

Use of the substance/mixture : For use in Photocentric UV LCD Printers

1.3. Supplier

Supplier

Photocentric Ltd
Titan House
20 Titan Drive
Peterborough, PE1 5XN - 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 85323 - United States
T 006235813220 x1009 (USA Office hours only)
customerservice@photocentricusa.com - <https://photocentricgroup.com/>

1.4. Emergency telephone 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(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) H302 Harmful if swallowed
Category 4

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H302 - Harmful if swallowed
Precautionary statements (GHS US) : P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301+P312 - If swallowed: Call a doctor if you feel unwell.
P330 - Rinse mouth.
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste, hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	Conc. (% w/w)	GHS US classification
Proprietary (Acrylated oligomer)*	(CAS-No.) Trade Secret	25 – 50	Acute Tox. 4 (Oral), H302
Proprietary (Photoinitiator)* (Note T)	(CAS-No.) Trade Secret	0.1 – 1	STOT RE 2, H373
Proprietary (Crosslinking agent)*	(CAS-No.) Trade Secret	0.075 – 0.1875	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

Note T : This substance may be marketed in a form which does not have the physical hazards as indicated by the classification in the entry in Part 3. If the results of the relevant method or methods in accordance with Part 2 of Annex I of this Regulation show that the specific form of substance marketed does not exhibit this physical property or these physical hazards, the substance shall be classified in accordance with the result or results of this test or these tests. Relevant information, including reference to the relevant test method(s) shall be included in the safety data sheet.

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. Seek medical attention immediately. IF exposed or concerned: Get medical advice/attention. 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. Call a poison center/doctor/physician if you feel unwell.
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. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell. Rinse mouth out with water. If swallowed, seek medical advice immediately and show this container or label.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms	: Harmful if swallowed. May be harmful in contact with skin. Irritation: severely irritant to eyes.
Symptoms/effects	: May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation.
Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing). May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye damage. Serious damage to eyes.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause irritation to the digestive tract.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. In all cases of doubt, or when symptoms persist, seek medical attention. Seek medical advice (show the label where possible).

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	: Not flammable. Combustible liquid.
Explosion hazard	: No direct explosion hazard.
Reactivity in case of fire	: Product is not explosive.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

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5.3. Special protective equipment and precautions for fire-fighters

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| Precautionary measures fire | : Keep container closed when not in use. Store in tightly closed, properly ventilated containers away from heat, sparks, open flame. Keep cool. Protect from sunlight. Stop leak if safe to do so. |
| Firefighting instructions | : Do not enter fire area without proper protective equipment, including respiratory protection. In case of fire: Stop leak if safe to do so. Prevent fire-fighting water from entering environment. |
| 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

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| General measures | : Avoid contact with skin and eyes. Absorb spillage to prevent material-damage. Clean up any spills as soon as possible, using an absorbent material to collect it. May be harmful to aquatic organisms, to flora, to soil organisms. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. |
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6.1.1. For non-emergency personnel

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| Protective equipment | : Wear recommended personal protective equipment. |
| Emergency procedures | : See section 8 of the SDS for more information on personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. No open flames, no sparks, and no smoking. Do not breathe vapors, spray, mist. |

6.1.2. For emergency responders

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|----------------------|--|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. Self-contained breathing apparatus. Safety glasses. Protective gloves. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : Evacuate unnecessary personnel. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Ventilate area. |

6.2. Environmental precautions

Avoid release to the environment. Prevent liquid from entering sewers, watercourses, underground or low areas.

6.3. Methods and material for containment and cleaning up

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| 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. |
| 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. Notify authorities if product enters sewers or public waters. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections

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

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| Additional hazards when processed | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| Precautions for safe handling | : Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, spray, mist. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. |
| Handling temperature | : 10 – 50 °C |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. |

7.2. Conditions for safe storage, including any incompatibilities

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| Technical measures | : Keep in a cool, well-ventilated place away from heat. Store in a well-ventilated place. Keep container tightly closed. |
| Storage conditions | : Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed. |
| Incompatible materials | : Direct sunlight. |

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Storage temperature	: < 25 °C
Storage area	: Store away from heat. Store in a well-ventilated place.
Special rules on packaging	: Store in a closed container.
Packaging materials	: Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Rigid UV240 Plant-Based
No additional information available
Proprietary (Crosslinking agent)
No additional information available
Proprietary (Acrylated oligomer)
No additional information available
Proprietary (Photoinitiator)
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/Personal protective equipment

Personal protective equipment:

Safety glasses. Gloves.

Materials for protective clothing:

Wear suitable protective clothing and gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

No respiratory protection needed under normal use conditions. In case of inadequate ventilation wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: amber
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available

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Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
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	: No data available
Viscosity, dynamic	: 400 – 600 mPa·s
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: 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 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). Protect from sunlight. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

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.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

ATE US (oral)	1125.32 mg/kg body weight
Proprietary (Crosslinking agent)	
LD50 oral rat	1000 – 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LC50 Inhalation - Rat	> 3.363 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
ATE US (oral)	1000 mg/kg body weight
Proprietary (Acrylated oligomer)	
LD50 oral rat	550 mg/kg
ATE US (oral)	550 mg/kg body weight
Proprietary (Photoinitiator)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: other:OECD GUIDELINE No.401 (CORRESPONDING TO 84/449/EEC, B.1)

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Proprietary (Photoinitiator)	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: other:OECD GUIDELINE No.402 (CORRESPONDING TO 84/449/EEC, B.3)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
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 (Crosslinking agent)	
NOAEL (oral,rat,90 days)	≥ 100 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Proprietary (Photoinitiator)	
NOAEL (oral,rat,90 days)	< 10.8 mg/kg body weight Animal: other:ALBINO RAT/Tif: RAIf (SPF) HYBRIDIS OF RII/1×RII/2, Guideline: other:EEC Directive, B.7
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Potential Adverse human health effects and symptoms	: Harmful if swallowed. May be harmful in contact with skin. Irritation: severely irritant to eyes.
Symptoms/effects	: May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation.
Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing). May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye damage. Serious damage to eyes.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause irritation to the digestive tract.
Other information	: Likely routes of exposure: skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. Very toxic to aquatic life with long lasting effects.
Ecology - water	: Toxic to aquatic life with long lasting effects.

Proprietary (Crosslinking agent)	
LC50 fish 1	0.034 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 Daphnia 1	> 0.35 mg/l Test organisms (species): Daphnia magna

Proprietary (Photoinitiator)	
LC50 fish 1	> 100 mg/l Test organisms (species): other:ZEBRA FISH
EC50 other aquatic organisms 1	2.15 mg/l Test organisms (species): other aquatic crustacea:DM

12.2. Persistence and degradability

Proprietary (Photoinitiator)	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

No additional information available

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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

- 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.
- Additional information : Clean up even minor leaks or spills if possible without unnecessary risk. Consult an expert on waste disposal or treatment.
- Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

- Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornylacrylate), 9, III, MARINE POLLUTANT
- UN-No. (IMDG) : 3082
- Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
- Class (IMDG) : 9 - Miscellaneous dangerous substances and articles
- Packing group (IMDG) : III - substances presenting low danger
- Limited quantities (IMDG) : 5 L

Air transport

- Transport document description (IATA) : UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Isobornylacrylate), 9, III
- UN-No. (IATA) : 3082
- Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.
- Class (IATA) : 9 - Miscellaneous Dangerous Substances and Articles
- Packing group (IATA) : III - Low danger

SECTION 15: Regulatory information

15.1. US Federal regulations

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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 (Acrylated oligomer)	CAS-No.	25 – 50%
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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.

Proprietary (Photoinitiator)

EPA TSCA Regulatory Flag : PMN - PMN - indicates a commenced PMN substance.

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15.2. International regulations

CANADA

Proprietary (Crosslinking agent)

Listed on the Canadian DSL (Domestic Substances List)

Proprietary (Acrylated oligomer)

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

Proprietary (Photoinitiator)

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

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US 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

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Revision date : 05/04/2023

Full text of H-phrases:

H302	Harmful if swallowed
H373	May cause damage to organs through prolonged or repeated exposure

Abbreviations and acronyms:

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ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

SDS US (GHS HazCom 2012)

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.