

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Issue date: 26/03/2025 Revision date: 17/04/2025 Supersedes: 26/03/2025 Version: 2.0

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Polycarbonate-like, 405nm - Black

#### 1.2. Other means of identification

Other means of identification : MKRPCBK01, MKRPCBK05

#### 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](mailto: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](mailto: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

Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
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)	: H317 - May cause an allergic skin reaction H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS US)	: P261 - Avoid breathing vapours, spray, mist. P272 - Contaminated work clothing must not be allowed out of the workplace. P273 - Avoid release to the environment.

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P280 - Wear protective gloves, protective clothing, eye protection.  
P302+P352 - If on skin: Wash with plenty of soap and water.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P501 - Dispose of 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 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 (Dimethacrylate)	≥ 70	Aquatic Chronic 4, H413
Proprietary (Dimethacrylate)	≥ 5 – < 10	Aquatic Chronic 4, H413

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. 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. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If swallowed, seek medical advice immediately and show this container or label. Call a poison center/doctor/physician if you feel unwell. Rinse mouth out with water.

### 4.2. Most important symptoms/effects, acute and delayed

Potential Adverse human health effects and symptoms : May be harmful if inhaled. May be harmful in contact with skin.

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Symptoms/effects	: May be harmful if inhaled. May be harmful in contact with skin.
Symptoms/effects after inhalation	: May cause respiratory irritation.
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.

### 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

Explosion hazard	: No data available on direct explosion hazard.
Reactivity in case of fire	: Product is not explosive.

### 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	: Do not enter fire area without proper protective equipment, including respiratory protection. 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

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.
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#### For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Only qualified personnel equipped with suitable protective equipment may intervene. See section 8 of the SDS for more information on personal protective equipment.

#### 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.
Environmental precautions	: 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.
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	: Wear personal protective equipment. Avoid contact with skin, eyes and clothing.
Hygiene measures	: Wear personal protective equipment. 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.
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

Storage conditions	: Store in a well-ventilated place. Keep cool. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed.
Storage area	: Store away from heat. Store in a well-ventilated place.
Storage temperature	: $\geq 25$ °C
Specific end uses	: The identified uses for this product are detailed in section 1.2.
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

#### Exposure limit values of other components

Proprietary (Black Pigment)	
USA - ACGIH - Occupational Exposure Limits	
Local name	US ACGIH - TLV: 3.0 mg/m <sup>3</sup> TWA inhalable, US OSHA - PEL: 3.5 mg/m <sup>3</sup> TWA
ACGIH OEL TWA	3 mg/m <sup>3</sup> (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
Local name	Carbon black
OSHA PEL TWA	3.5 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

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### 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.

#### Eye protection:

Safety glasses

#### Personal protective equipment symbol(s):



#### 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	: Gray
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
Flash point	: 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	: 740 (650 – 800) mPa·s 25°C
Explosion limits	: No data available
Particle characteristics	: No data available

#### Proprietary (Dimethacrylate)

Particle characteristics	No data available
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#### Proprietary (Dimethacrylate)

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

No additional information available

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### 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

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11 Toxicological information

#### 11.1. Likely routes of exposure

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

Proprietary (Dimethacrylate)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

Proprietary (Dimethacrylate)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

Skin corrosion/irritation : Not classified

Proprietary (Dimethacrylate)	
pH	6 – 8

Proprietary (Dimethacrylate)	
pH	6 – 8

Serious eye damage/irritation : Not classified

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Proprietary (Dimethacrylate)	
pH	6 – 8

Proprietary (Dimethacrylate)	
pH	6 – 8

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Proprietary (Dimethacrylate)	
NOAEL (oral, rat, 90 days)	300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))

Proprietary (Dimethacrylate)	
NOAEL (oral, rat, 90 days)	300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))

Aspiration hazard : Not classified

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Viscosity, kinematic	No data available

Proprietary (Dimethacrylate)	
Viscosity, kinematic	No data available

Proprietary (Dimethacrylate)	
Viscosity, kinematic	No data available

Potential Adverse human health effects and symptoms : May be harmful if inhaled. May be harmful in contact with skin.

Symptoms/effects : May be harmful if inhaled. May be harmful in contact with skin.

Symptoms/effects after inhalation : May cause respiratory irritation.

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 : 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 (Dimethacrylate)	
LC50 - Fish [1]	> 100 mg/l LL <sub>50</sub> , 96 hours: > 100 mg/l, Brachydanio rerio (Zebra Fish)
EC50 - Crustacea [1]	> 100 mg/l EC <sub>50</sub> , 48 hours: > 100 mg/l, Daphnia magna

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Proprietary (Dimethacrylate)	
EC50 72h - Algae [1]	EL50, 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata
Proprietary (Dimethacrylate)	
LC50 - Fish [1]	> 100 mg/l LL <sub>50</sub> , 96 hours: > 100 mg/l, Brachydanio rerio (Zebra Fish)
EC50 - Crustacea [1]	> 100 mg/l EC <sub>50</sub> , 48 hours: > 100 mg/l, Daphnia magna
EC50 72h - Algae [1]	EL50, 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata

### 12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable
Proprietary (Dimethacrylate)	
Persistence and degradability	The substance is readily biodegradable. Degradation (85%) 29 days OCED 301B.
Proprietary (Dimethacrylate)	
Persistence and degradability	The substance is readily biodegradable. Degradation (85%) 29 days OCED 301B.

### 12.3. Bioaccumulative potential

Proprietary (Dimethacrylate)	
Partition coefficient n-octanol/water (Log Kow)	5.3 – 5.62 log Kow: 5.30~5.62
Proprietary (Dimethacrylate)	
Partition coefficient n-octanol/water (Log Kow)	5.3 – 5.62 log Kow: 5.30~5.62

### 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

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.
Ecological waste information	: Avoid release to the environment.

## SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA



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### 14.1. UN number

Not regulated for transport

### 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

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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 (Dimethacrylate)

Listed on the Canadian DSL (Domestic Substances List)

##### Proprietary (Dimethacrylate)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 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

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Issue date : 26/03/2025

#### Full text of hazard classes and H-statements

H317	May cause an allergic skin reaction
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

#### Abbreviations and acronyms

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

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Abbreviations and acronyms	
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) 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.