Durable DL110H - Black

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878
Issue date: 01/03/2021 Revision date: 05/03/2025 Supersedes version of: 10/11/2024 Version: 2.0

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	Durable DL110H - Black
Type of product	:	Photopolymer
Other means of identification	:	MAGDHBK05

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

Relevant identified uses

Main use category	:	Industrial use,Professional use
Use of the substance/mixture	:	For use in Photocentric Daylight Printers

1.3. Details of the supplier of the safety data sheet

Supplier
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
85323 Avondale, Arizona, AZ
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: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05 GHS07 GHS09

Signal word (CLP) : Danger

Contains	:	Proprietary (Monomer); Proprietary (Photoinititor); Proprietary (Crosslinking agent); Proprietary (Triacrylate); Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate; 4-(1-oxo-2-propenyl)-morpholine
Hazard statements (CLP)	:	H302 - Harmful if swallowed. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	:	P261 - Avoid breathing fume, mist, spray, vapours.vapours, fume, spray. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P301+P312 - IF SWALLOWED: Call doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a doctor. P321 - Specific treatment (see supplemental first aid instruction on this label). P330 - Rinse mouth. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P391 - Collect spillage. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Proprietary (Oligomer)	≥ 25 – < 50	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Properitary (Acrylate)	≥ 20 – < 25	Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Proprietary (Monomer)	≥ 10 – < 15	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335

Name	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Proprietary (Monomer)	≥ 5 – < 10	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373
Proprietary (Triacrylate)	≥ 5 – < 10	Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Proprietary (Crosslinking agent)	≥ 0.1 – < 1	Eye Irrit. 2, H319 Skin Sens. 1, H317
Proprietary (Photoinititor)	≥ 0.1 – < 1	Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Proprietary (Photoinitiator)	≥ 0.1 – < 1	Flam. Sol. 1, H228 Repr. 2, H361f STOT RE 2, H373 Aquatic Chronic 2, H411
Proprietary (Crosslinking agent)	< 1	Acute Tox. 4 (Oral), H302 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Full text of H- and EUH-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. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a doctor 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. Get medical advice/attention if you feel unwell. If swallowed, seek medical advice immediately and show this container or label. Rinse mouth out with water. Rinse mouth. Call a poison center or a doctor if you feel unwell.

First-aid measures for first aider : First aid workers will be equipped with suitable personal protective equipment.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : May be harmful in contact with skin. May be harmful if swallowed and enters airways.

Symptoms/effects after inhalation : Inhalation may cause irritation (cough, short breathing, difficulty in breathing). May cause respiratory irritation.

Symptoms/effects after skin contact : May be harmful in contact with skin. Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

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

4.3. Indication of any immediate medical attention and special treatment needed

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.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	In case of fire, irritating fumes come free.
Explosion hazard	:	No direct explosion hazard.
Reactivity in case of fire	:	Corrosive vapours.
Hazardous decomposition products in case of fire	:	Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	:	Evacuate area. Keep container closed when not in use. Keep cool. Protect from sunlight. This product is not to be used under conditions of poor ventilation.
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. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. Use water spray or fog for cooling exposed containers.
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. Evacuate area. Absorb spillage to prevent material damage. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.

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. Avoid breathing dust/fume/gas/mist/vapours/spray.

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.

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

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 without risks if possible.
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.

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

Additional hazards when processed	:	Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling	:	Avoid contact with skin, eyes and clothing. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment. 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 vapours. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Handling temperature	:	10 – 50 °C
Hygiene measures	:	Wear personal protective equipment. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Ensure adequate ventilation, especially in confined areas. Store in a well-ventilated place. Keep container tightly closed.
Storage conditions	:	Store in a well-ventilated place. Keep cool. Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Incompatible materials	:	Direct sunlight.
Storage temperature	:	< 25 °C
Storage area	:	Store in a well-ventilated place.
Special rules on packaging	:	Store in a closed container.
Packaging materials	:	Do not store in corrodable metal. Store always product in container of same material as original container.

7.3. Specific end use(s)

The identified uses for this product are detailed in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:
Wear recommended personal protective equipment. Safety glasses. Gloves.
Personal protective equipment symbol(s):

Eye and face protection

Eye protection:
Safety glasses. Safety glasses (EN 166). Chemical goggles or safety glasses

Skin protection

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

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

Other skin protection
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

Respiratory protection

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

Thermal hazards

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.

Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.
Consumer exposure controls:
The substance is not classified for human health hazards or for environment effects and it is not PBT or vPvB so that no exposure assessment or risk characterisation is required. For tasks where the intervention of workers is required, the substance must be handled in accordance with good industrial hygiene and safety procedures.
Other information:
Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Black.
Appearance	:	Liquid.
Odour	:	characteristic.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Viscosity, dynamic	:	350 – 650 mPa·s 25°C
Solubility	:	Not available
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	Not available
Relative density	:	Not available

Relative vapour density at 20°C : Not available
Particle characteristics : Not applicable

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).

10.5. Incompatible materials

May be corrosive to metals.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Durable DL110H - Black	
ATE CLP (oral)	1744.186 mg/kg bodyweight

Proprietary (Monomer)	
LD50 oral rat	300 – 2000 mg/kg bodyweight OECD Guideline 423
LD50 dermal rat	> 2000 mg/kg bodyweight OECD Guideline 423

Proprietary (Photoinititor)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.1 (Acute Toxicity (Oral))
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: other:92/69/EEC

Proprietary (Crosslinking agent)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral))
LD50 dermal rabbit	> 13200 mg/kg bodyweight Animal: rabbit

Proprietary (Crosslinking agent)	
LD50 oral rat	1000 – 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)

Proprietary (Crosslinking agent)	
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)

Proprietary (Photoinitiator)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: other:OECD GUIDELINE No.401 (CORRESPONDING TO 84/449/EEC, B.1)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: other:OECD GUIDELINE No.402 (CORRESPONDING TO 84/449/EEC, B.3)

Proprietary (Triacrylate)	
LD50 oral rat	No mortality/Rat: 2.000 mg/kg (Method: OECD Test Guideline 423)

Properitary (Acrylate)	
LD50 dermal rabbit	> 3000 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: other:

Proprietary (Monomer)	
LD50 oral rat	588 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	5.28 mg/l/4h

Proprietary (Oligomer)	
LD50 oral rat	> 2000 mg/kg The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
LD50 dermal rat	> 5000 mg/kg The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
LC50 Inhalation - Rat	not determined

Skin corrosion/irritation : Causes skin irritation.

Proprietary (Monomer)	
pH	7.5

Proprietary (Triacrylate)	
pH	6 – 8

Proprietary (Monomer)	
pH	7 – 9

Serious eye damage/irritation : Causes serious eye damage.

Proprietary (Monomer)	
pH	7.5

Proprietary (Triacrylate)	
pH	6 – 8

Proprietary (Monomer)	
pH	7 – 9

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

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Proprietary (Triacrylate)	
NOAEL (animal/male, F0/P)	50 mg/kg bodyweight NOAEL (Parental toxicity) (Method: OECD Test Guideline 422, Rat, By oral route)
NOAEL (animal/female, F0/P)	> 200 mg/kg bodyweight NOAEL (fertility) (Method: OECD Test Guideline 422, Rat, By oral route)
NOAEL (animal/male, F1)	> 200 mg/kg bodyweight NOAEL (developmental toxicity) (Method: OECD Test Guideline 422, Rat, By oral route)

STOT-single exposure : Not classified

Proprietary (Monomer)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Proprietary (Photoinititor)	
NOAEL (oral, rat, 90 days)	> 1000 mg/kg bodyweight Animal: rat, Guideline: other:92/69/eec

Proprietary (Crosslinking agent)	
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Proprietary (Crosslinking agent)	
NOAEL (oral, rat, 90 days)	≥ 100 mg/kg bodyweight 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 (digestive organs, circulatory organs) through prolonged or repeated exposure (if inhaled, if swallowed, in contact with skin).

Proprietary (Photoinitiator)	
NOAEL (oral, rat, 90 days)	< 10.8 mg/kg bodyweight Animal: other:ALBINO RAT/Tif: RAlf (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.

Proprietary (Triacrylate)	
LOAEL (oral, rat, 90 days)	100 mg/kg bodyweight/day Local Irritation (Method: OECD Test Guideline 422, Rat, 28 d)
NOAEL (oral, rat, 28 days)	50 mg/kg bodyweight/day (Method: OECD Test Guideline 422, Rat, 28 d)

Proprietary (Monomer)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Proprietary (Monomer)	
Viscosity, kinematic	4 mm²/s

Proprietary (Triacrylate)	
Viscosity, kinematic	Not applicable

Proprietary (Monomer)	
Viscosity, kinematic	10.084 mm²/s

Proprietary (Oligomer)	
Viscosity, kinematic	> 15000 – < 21000 mm²/s

11.2. Information on other hazards

Other information

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

Other information : Likely routes of exposure: ingestion, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life. Toxic 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) : Toxic to aquatic life with long lasting effects.

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 (Photoinititor)	
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)

Proprietary (Crosslinking agent)	
LC50 - Fish [1]	1.95 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	70.7 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	2.2 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

Proprietary (Crosslinking agent)	
LC50 - Fish [1]	0.034 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 0.35 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 0.12 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

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

Proprietary (Triacrylate)	
LC50 - Fish [1]	9.43 mg/l (Danio rerio (zebra fish)) 96h (Method: OECD Test Guideline 203)
EC50 - Crustacea [1]	158.3 mg/l (Method: OECD Test Guideline 202)EC50, 48 h (Daphnia magna (Water flea))
EC50 72h - Algae [1]	25.7 mg/l Pseudokirchneriella subcapitata (green algae) l (Method: OECD Test Guideline 201)

Proprietary (Triacrylate)	
ErC50 algae	25.7 mg/l 72 h (Pseudokirchneriella subcapitata (green algae)) :(Method: OECD Test Guideline 201)
NOEC (chronic)	≥ 100 mg/l NOEC, 14 d (Activated sludge)(Respiration inhibition)

Properitary (Acrylate)	
LC50 - Fish [1]	0.704 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 72h - Algae [1]	1.98 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	0.596 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
LOEC (chronic)	0.277 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.092 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Proprietary (Monomer)	
EC50 72h - Algae [1]	120 mg/l

12.2. Persistence and degradability

Durable DL110H - Black	
Persistence and degradability	Not rapidly degradable

Proprietary (Monomer)	
Persistence and degradability	Product is practically not biodegradable.

Proprietary (Photoinititor)	
Persistence and degradability	Not rapidly degradable

Proprietary (Crosslinking agent)	
Persistence and degradability	Not rapidly degradable

Proprietary (Crosslinking agent)	
Persistence and degradability	Not rapidly degradable

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

Proprietary (Triacrylate)	
Persistence and degradability	May cause long-term adverse effects in the environment.
Biodegradation	14.5 – 19.7 % after 28 d (Method: OECD Test Guideline 301 F)

Properitary (Acrylate)	
Persistence and degradability	Not rapidly degradable

Proprietary (Monomer)	
Persistence and degradability	Not rapidly degradable

Proprietary (Oligomer)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

Proprietary (Monomer)	
Partition coefficient n-octanol/water (Log Pow)	0.8

Proprietary (Triacrylate)	
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.61 25 °C (OECD Test Guideline 117)

12.4. Mobility in soil

Proprietary (Triacrylate)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.79 (Method: calculated) Absorption / desorption:

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Durable DL110H - Black	
Other information	Avoid release to the environment.

SECTION 13: Disposal considerations

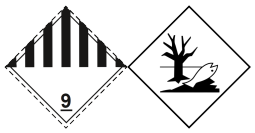
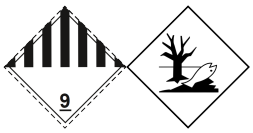
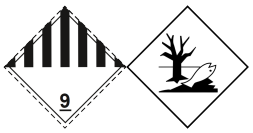
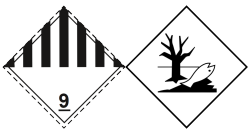
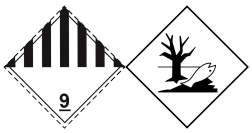
13.1. Waste treatment methods

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 ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197	Special provision(s) applied : 375	Special provision(s) applied : 375
These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of the transport regulations provided the packagings meet the general provisions.				
14.1. UN number or ID number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082

ADR	IMDG	IATA	ADN	RID
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate)	Environmentally hazardous substance, liquid, n.o.s. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate)
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Tris(2-hydroxyethyl) Isocyanurate Triacrylate), 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-A EmS-No. (Spillage): S-F	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	M6
Special provisions (ADR)	:	274, 335, 375, 601
Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, LP01, R001
Special packing provisions (ADR)	:	PP1
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T4
Portable tank and bulk container special provisions (ADR)	:	TP1, TP29
Tank code (ADR)	:	LGBV
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV13
Hazard identification number (Kemler No.)	:	90

Orange plates : 

Tunnel restriction code (ADR) : -
EAC code : •3Z

Transport by sea

Special provisions (IMDG) : 274, 335, 969
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : LP01, P001
Special packing provisions (IMDG) : PP1
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T4
Tank special provisions (IMDG) : TP1, TP29
Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L
Special provisions (IATA) : A97, A158, A197, A215
ERG code (IATA) : 9L

Inland waterway transport

Classification code (ADN) : M6
Special provisions (ADN) : 274, 335, 375, 601
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : M6
Special provisions (RID) : 274, 335, 375, 601
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions (RID) : TP1, TP29
Tank codes for RID tanks (RID) : LGBV
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW31
Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

Germany

VOC ordinance (ChemVOCFarbV)	:	
Employment restrictions	:	Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK)	:	WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	:	PI-784 is listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	:	None of the components are listed

Denmark

Danish National Regulations	:	Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

Poland

Polish National Regulations : Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).
ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

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
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration

Abbreviations and acronyms:	
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
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Sol. 1	Flammable solids, Category 1
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H228	Flammable solid.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

Full text of H- and EUH-statements:	
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

New SDS EU (REACH Annex II) Photocentric Amended NoCAS

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.