



KRYLEX KU1053 UV Acrylic Adhesive

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Reference number: 01-005-1606
Issue date: 11/11/2010 Revision date: 04/11/2022 Supersedes version of: 04/02/2022 Version: 5.1

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

1.1. Product identifier

Product form : Mixture
Product name : KRYLEX KU1053 UV Acrylic Adhesive
UFI : 49UE-9KHN-HM25-0UQ5
Product code : KU1053
Type of product : adhesives
Product group : Trade product

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

1.2.1. Relevant identified uses

Use of the substance/mixture : UV-Curing adhesive
Use of the substance/mixture : Adhesives, sealants
Function or use category : Adhesives, binding agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Chemence Ltd
13 Princewood Road,
Corby,
Northamptonshire NN17 4XD
United Kingdom

Tel: +44 (0)1536 402600

Faxl: +44 (0)1536 400266

email: technical@chemence.com

1.4. Emergency telephone number

Emergency number : +44 (0)1536 402600 (Monday - Friday 8:00 to 17:30)
UK Only - IN CASE OF TOXIC OR TRANSPORT EMERGENCY:
National Chemical Emergency Centre: Telephone 01865 407333

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals

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

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Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335
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

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

Contains

Hazard statements (CLP)

Precautionary statements (CLP)

- : Danger
- : Isobornyl acrylate, N,N-dimethylacrylamide, diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide, 2-Hydroxyethyl acrylate, Hexamethylene diacrylate
- : H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H411 - Toxic to aquatic life with long lasting effects.
- : P261 - Avoid breathing vapours.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, eye protection, protective clothing.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P273 - Avoid release to the environment.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Isobornyl acrylate	CAS-No.: 5888-33-5 EC-No.: 227-561-6 REACH-no: 01-2119957862-25	≥ 15 – < 30	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
N,N-dimethylacrylamide	CAS-No.: 2680-03-7 EC-No.: 220-237-5 REACH-no: 01-2119971262-39	≥ 15 – < 30	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Eye Dam. 1, H318
Polyether urethane acrylate	REACH-no: EXEMPT - POLYMER	≥ 3 – < 8	Eye Irrit. 2, H319
Hexamethylene diacrylate	CAS-No.: 13048-33-4 EC-No.: 235-921-9 EC Index-No.: 607-109-00-8 REACH-no: 01-2119484737-22	≥ 1 – < 3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	CAS-No.: 75980-60-8 EC-No.: 278-355-8 EC Index-No.: 015-203-00-X REACH-no: 01-2119972295-29	≥ 1 – < 3	Skin Sens. 1B, H317 Repr. 2, H361f Aquatic Chronic 2, H411
2-Hydroxyethyl acrylate	CAS-No.: 818-61-1 EC-No.: 212-454-9 EC Index-No.: 607-072-00-8	≥ 0.01 – < 0.1	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 3, H412

Specific concentration limits:

Name	Product identifier	Specific concentration limits
2-Hydroxyethyl acrylate	CAS-No.: 818-61-1 EC-No.: 212-454-9 EC Index-No.: 607-072-00-8	(0.2 ≤ C ≤ 100) Skin Sens. 1, H317

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

: If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation

: Move the affected person away from the contaminated area and into the fresh air. If symptoms persist, consult a doctor.

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First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Do not remove clothing if it sticks to the skin. If skin irritation or rash occurs: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. In case of accidental eye contact: Avoid exposure to the sun or other sources of UV light that may then increase sensitivity. Get immediate medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Do not induce vomiting. Drink plenty of water. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects	: Causes serious eye damage. May cause an allergic skin reaction.
Symptoms/effects after inhalation	: May cause headache, nausea and irritation of respiratory tract.
Symptoms/effects after skin contact	: Allergic skin rash. Itching. skin irritation and erythema.
Symptoms/effects after eye contact	: Risk of serious damage to eyes. Blurred vision. redness, itching, tears.
Symptoms/effects after ingestion	: Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain. May be harmful if swallowed.
Chronic symptoms	: Repeated or prolonged skin contact can result in sensitisation in susceptible individuals.

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

An eyewash station should be available on the premises. Risk of serious permanent damages to eyes if the product is not rapidly removed.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO ₂).
Unsuitable extinguishing media	: high volume water jet or water based extinguishing media.

5.2. Special hazards arising from the substance or mixture

Explosion hazard	: Prolonged exposure to fire may cause containers to rupture/explode.
Reactivity in case of fire	: Hazardous polymerization may occur if exposure to fire conditions. On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers exposed to heat with a water spray.
Hazardous decomposition products in case of fire	: When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, nitrogen oxides (NOx).

5.3. Advice for firefighters

Precautionary measures fire	: Evacuate area. Do not approach fire except upwind and only with proper skin and respiratory protection (supplied air only).
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Avoid contact with skin and eyes.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: For a large spillage, contain the spillage by bunding.
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6.1.1. For non-emergency personnel

Protective equipment	: Safety glasses. Gloves.
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Emergency procedures : Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Safety glasses. EN 166. Protective gloves. EN 374-2. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid. Mark out the contaminated area with signs and prevent access to unauthorized personnel.

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. For a large spillage, contain the spillage by bunding. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

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

Precautions for safe handling : Ensure that there is a suitable ventilation system. Do not handle in a confined space. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing fume, vapours.

Hygiene measures : 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 : Keep out of direct sunlight.

Storage conditions : Store in a well-ventilated place. Keep cool. Protect from sunlight. Store at temperatures not exceeding 25°C.

Incompatible products : Strong oxidizing agents. Strong acids. Strong reducing agents. Peroxides. reactive metals (Al, K, Zn ...). free radical initiators.

Incompatible materials : Sources of ignition. heat. open flames. hot surfaces. High temperature. UV light. Direct sunlight.

Storage temperature : < 25 °C

Storage area : Store away from direct sunlight or other heat sources.

Packaging materials : Always store product in a container of the same material as original container. Containers must be UV opaque.

7.3. Specific end use(s)

adhesives.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Exposure limit values for the other components

1,4-Dioxane (123-91-1)		
United Kingdom - Occupational Exposure Limits		
Local name	1,4-Dioxane	
WEL TWA (OEL TWA) [1]	73 mg/m ³	
WEL TWA (OEL TWA) [2]	20 ppm	
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Do not wear protective gloves made from PVC as these absorb (meth)acrylates. See Section 7 for information on safe handling.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

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Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves. Do not wear: Latex gloves. Do not wear protective gloves made from PVC as these absorb (meth)acrylates.

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR), Fluoroelastomer (FKM), Viton® II	4 (> 120 minutes)	>0.5mm		EN 374-2

8.2.2.3. Respiratory protection

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Keep self contained breathing apparatus readily available for emergency use.

Respiratory protection			
Device	Filter type	Condition	Standard
Reusable half mask	ABEK-P3, Type A - High-boiling (>65 °C) organic compounds	Vapour protection, If conc. in air > 1 vol %	EN 140, EN 14387

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke when using this product. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: medium viscous liquid.
Colour	: Various colours.
Odour	: Characteristic pungent odour.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not established
Freezing point	: No data available
Boiling point	: > 100 °C
Flash point	: > 100 °C

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Auto-ignition temperature	: Not established
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 1 mm Hg @20°C
Relative vapour density at 20 °C	: No data available
Relative density	: ≈ 1.03
Solubility	: Slightly soluble in: Water. soluble in most organic solvents.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: ≈ 243 mm ² /s Calculated value
Viscosity, dynamic	: 250 cP Anton Paar cone and plate, controlled stress rheometer
Explosive properties	: Product is not explosive.
Oxidising properties	: Not oxidising. by EC criteria.
Explosive limits	: No data available
Particle size	: Not applicable. (Liquid)

9.2. Other information

Other properties : Light sensitive.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Light sensitive.

10.2. Chemical stability

Stable under normal conditions. Polymerises on exposure to UV light.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Polymerises on exposure to temperature rise: pressure build-up may cause closed container to burst.

10.4. Conditions to avoid

Sources of ignition. Heat. open flames. hot surfaces. High temperature. UV light. Direct sunlight.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong reducing agents. Peroxides. reactive metals (Al, K, Zn ...). free radical initiators.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

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ATE CLP (oral)	1325 mg/kg bodyweight
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Isobornyl acrylate (5888-33-5)	
LD50 oral rat	4890 mg/kg
LD50 dermal	> 5 g/kg
N,N-dimethylacrylamide (2680-03-7)	
LD50 oral rat	265 mg/kg
LD50 dermal	519 mg/kg
LC50 Inhalation - Rat [ppm]	776 ppm
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)	
LD50 oral rat	> 5000 mg/kg bodyweight Equivalent to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat, Male / female, Experimental value, Dermal) OECD 402 method / Test method EU B.3
2-Hydroxyethyl acrylate (818-61-1)	
LD50 oral rat	≈ 960.5 mg/kg bodyweight Equivalent to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)
LD50 dermal rat	> 1000 mg/kg bodyweight (Rat, Male / female, Experimental value, Dermal) OECD 402 method
Polyether urethane acrylate	
LD50 oral rat	> 2000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight
Hexamethylene diacrylate (13048-33-4)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 423 method)
LD50 dermal rabbit	3650 mg/kg bodyweight
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)	
NOAEL (animal/male, F0/P)	200 mg/kg bodyweight
NOAEL (animal/female, F0/P)	200 mg/kg bodyweight
NOAEL (animal/male, F1)	200 mg/kg bodyweight
NOAEL (animal/female, F1)	200 mg/kg bodyweight
STOT-single exposure	: May cause respiratory irritation.
Isobornyl acrylate (5888-33-5)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)

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N,N-dimethylacrylamide (2680-03-7)	
LOAEL (dermal, rat/rabbit, 90 days)	75 mg/kg bodyweight (OECD 411 method)
2-Hydroxyethyl acrylate (818-61-1)	
NOAEC (inhalation, rat, vapour, 90 days)	0.0024 mg/l air rat
Hexamethylene diacrylate (13048-33-4)	
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight (OECD 422 method)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
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Viscosity, kinematic	≈ 243 mm ² /s Calculated value
Potential adverse human health effects and symptoms	: Harmful if swallowed, May cause an allergic skin reaction, Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Ecology - water	: Slightly soluble in: Water
Ecology - water	: Slightly soluble product, readily forms deposits.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.

Isobornyl acrylate (5888-33-5)	
LC50 - Fish [1]	0.704 mg/l
EC50 - Other aquatic organisms [1]	1.98 mg/l
N,N-dimethylacrylamide (2680-03-7)	
LC50 - Fish [1]	121 mg/l
EC50 - Crustacea [1]	> 120 mg/l Species: Daphnia magna
EC50 - Other aquatic organisms [1]	121 mg/l
EC50 72h - Algae [1]	> 400 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC chronic algae	50 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)	
LC50 - Fish [1]	1.4 mg/l Cyprinus carpio (Common carp)
LC50 - Fish [2]	6.53 mg/l Test organisms (species): Japanese Rice Fish (Oryzias latipes)
EC50 - Crustacea [1]	3.53 mg/l Species: Daphnia magna
EC50 72h - Algae [1]	> 1.56 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	2.75 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

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2-Hydroxyethyl acrylate (818-61-1)	
LC50 - Fish [1]	3.61 mg/l Test organisms (species): Fathead minnow (<i>Pimephales promelas</i>)
LC50 - Fish [2]	4.8 mg/l Test organisms (species): Fathead minnow (<i>Pimephales promelas</i>)
EC50 - Crustacea [1]	24 mg/l Species: <i>Daphnia magna</i>
EC50 72h - Algae [1]	6.98 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
EC50 72h - Algae [2]	3.88 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
NOEC (chronic)	0.48 mg/l Species: <i>Daphnia magna</i> Duration: '21 d'
Hexamethylene diacrylate (13048-33-4)	
LC50 - Fish [1]	0.38 mg/l Test organisms (species): Japanese Rice Fish (<i>Oryzias latipes</i>)
LC50 - Fish [2]	4.6 – 10 mg/l <i>Leuciscus idus</i> (golden orfe)
EC50 - Crustacea [1]	2.7 mg/l Species: <i>Daphnia magna</i>
EC50 72h - Algae [1]	1.5 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i>)
EC50 72h - Algae [2]	2.33 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
LOEC (chronic)	0.24 mg/l Species: <i>Daphnia magna</i> Duration: '21 d'
NOEC (chronic)	0.14 mg/l Species: <i>Daphnia magna</i> Duration: '21 d'
NOEC chronic fish	0.0723 mg/l Test organisms (species): Japanese Rice Fish (<i>Oryzias latipes</i>)
NOEC chronic crustacea	0.14 mg/l Species: <i>Daphnia magna</i> Duration: '21 d'
NOEC chronic algae	0.9 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
12.2. Persistence and degradability	
KRYLEX KU1053 UV Acrylic Adhesive	
Persistence and degradability	Not established.
N,N-dimethylacrylamide (2680-03-7)	
Biodegradation	0 % No appreciable biodegradation is expected
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)	
BOD (% of ThOD)	0 – 10 % ThOD
Biodegradation	0 – 10 %
12.3. Bioaccumulative potential	
KRYLEX KU1053 UV Acrylic Adhesive	
Bioaccumulative potential	Not established.
N,N-dimethylacrylamide (2680-03-7)	
Partition coefficient n-octanol/water (Log Pow)	-0.3 @23°C

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diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)

Partition coefficient n-octanol/water (Log Pow) 3.1

2-Hydroxyethyl acrylate (818-61-1)

Partition coefficient n-octanol/water (Log Pow) 0.21

Hexamethylene diacrylate (13048-33-4)

Partition coefficient n-octanol/water (Log Kow) 2.81

12.4. Mobility in soil

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Ecology - soil Adsorbs into the soil. Not volatile. Slightly soluble product, readily forms deposits.

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)

Organic Carbon Normalized Adsorption Coefficient (Log Koc) 784.8

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose as hazardous waste.
Product/Packaging disposal recommendations : a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
Ecology - waste materials : Avoid release to the environment.
HP Code : HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.
HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.
HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID


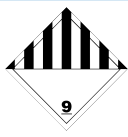

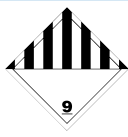

ADR	IMDG	IATA	ADN	RID
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197	Special provision(s) applied : 375	Special provision(s) applied : 375

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ADR	IMDG	IATA	ADN	RID
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 ADR provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.				
14.1. UN number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : Isobornyl acrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : Isobornyl acrylate)	Environmentally hazardous substance, liquid, n.o.s. (CONTAINS : Isobornyl acrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : Isobornyl acrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : Isobornyl acrylate)
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : Isobornyl acrylate), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : Isobornyl acrylate), 9, III	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (CONTAINS : Isobornyl acrylate), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : Isobornyl acrylate), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : Isobornyl acrylate), 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	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg). The environmentally hazardous substance mark is therefore not required, as stated in the ADR regulation, section 5.2.1.8.1.				
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)	: 5I
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

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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
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-F
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

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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. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(b)	2-Hydroxyethyl acrylate ; Isobornyl acrylate ; N,N-dimethylacrylamide ; Polyether urethane acrylate ; Hexamethylene diacrylate	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	2-Hydroxyethyl acrylate ; Isobornyl acrylate ; Hexamethylene diacrylate	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

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 (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

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)

15.1.2. National regulations

No additional information available



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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Identification of the substance/mixture and of the company/undertaking. Precautionary statements. Accidental release measures. Handling and storage. Exposure controls/personal protection. Physical and chemical properties. Stability and reactivity. Toxicological information. Ecological information.

Indication of changes

Section	Changed item	Change	Comments
	Supersedes version of	Modified	
	Revision date	Modified	
1.1	Name	Modified	
2.2	Precautionary statements (CLP)	Modified	
5.2	Explosion hazard	Added	
7.2	Packaging materials	Modified	
8.2	Appropriate engineering controls	Modified	
8.2	Hand protection	Modified	
9.1	Viscosity, kinematic	Modified	
9.1	Melting point	Added	
9.1	Auto-ignition temperature	Added	
9.1	Relative density	Modified	
9.1	Oxidising properties	Modified	
10.2	Chemical stability	Modified	
10.3	Possibility of hazardous reactions	Modified	
11.1	Potential adverse human health effects and symptoms	Added	
11.1	ATE CLP (dermal)	Removed	
11.1	ATE CLP (oral)	Added	
12.1	Ecology - water	Added	
12.1	Ecology - general	Added	
15.1	REACH Annex XVII	Added	
16	Abbreviations and acronyms	Added	

Abbreviations and acronyms:

CAS-No.	Chemical Abstract Service number
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



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Abbreviations and acronyms:	
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disrupting properties
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
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
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
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
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

Data sources : Supplier's safety documents. ECHA (European Chemicals Agency). UNECE, <http://www.unece.org/>.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4



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Full text of H- and EUH-statements:	
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
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
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.
H412	Harmful to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

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