



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of Regulation (EC) No. 1272/2008 and Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878

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

1.1. Product identifier

Trade name or designation of the mixture INK VUTEK Q3H CLEAR

Registration number -

UFI: EU: QECN-5D29-T64J-1VRX

Synonyms None.

Product code 45250921

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

Identified uses Coating

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Manufacturer EFI UK Ltd
Address Bowling Old Lane
Bradford
West Yorkshire
BD5 7JL
United Kingdom
Phone Number - General +44 1274 307704

Supplier Electronics for Imaging B.V.
Address VIA DEL LAVORO 130
24040 COMUN NUOVO (BG)
Italy
Phone Number - General +39 035 3844511

Email ehs@efi.com
Website efi.com

Phone Number - Emergency

1.4. Emergency telephone number

3E Global Incident Response +1 760 476 3962 Access Code: 57138. Available 24/7/365

General in EU 112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Austria National Poisons Information Centre +431 406 4343 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Great Britain General emergency 112 or 999 SDS/Product information may not be available for the Emergency Service.

Italy CAV Policlinico "A. Gemelli" 06-3054343 <https://preparatipericolosi.iss.it/cav.aspx>: (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Belgium National Poisons Control Centre 070 245 245 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

1.4. Emergency telephone number

Bulgaria National Toxicological Information Centre	+359 2 9154 233 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Croatia Poisons Information Centre	+385 1 2348 342 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Cyprus Poison Centre	1401 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Czech Republic National Poisons Information Centre	+420 224 919 293, or +420 224 915 402 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Denmark National Poisons Control Centre	+45 82 12 12 12 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Estonia National Poisons Information Centre	16662 or abroad: (+372) 626 9390 (Monday 9:00AM to Saturday 9:00AM (closed on Sundays and on national holidays). SDS/Product information may not be available for the Emergency Service.)
Finland National Poison Information Centre	(09) 471 977 (direct) or (09) 4711 (exchange) (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
France National Poisons Control Centre	ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Greece Poison Information Centre telephone number	(0030) 2107793777 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Hungary National Emergency Phone Number	+36-80-201-199 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Iceland Poison Centre	(+354) 543 2222 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Latvia Emergency medical aid	113
Latvia Poison and Drug Information Centre	+371 67042473 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Lithuania Neatidėliotina informacija apsinuodijus	+370 5 236 20 52 or +37068753378 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Malta Accident and Emergency Department	2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Netherlands National Poisons Information Centre (NVIC)	NVIC: +31 (0)88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)
Norway Norwegian Poison Information Centre	22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Portugal Poison Centre	800 250 250 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Romania Biroul RSI si Informare Toxicologica	021.318.36.06 (Available 8:00AM-3:00PM. SDS/Product information may not be available for the Emergency Service.)
Slovakia National Toxicological Information Centre	+421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Spain Toxicology Information Service	+ 34 91 562 04 20 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Sweden National Poison Information Centre	112 - and ask for Poison Information (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Switzerland Tox Info Suisse	145 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies. The classification of the substance or mixture has been performed in accordance with ABNT NBR 14725.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Skin corrosion/irritation

Category 2

H315 - Causes skin irritation.

Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	H335 - May cause respiratory irritation.
Environmental hazards		
Hazardous to the aquatic environment, acute aquatic hazard	Category 1	H400 - Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

UFI:

EU: QECN-5D29-T64J-1VRX

Contains:

hexamethylene diacrylate; hexane-1,6-diol diacrylate, Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate, 2-propenoic Acid, 1,1'-(1,6-hexanediyl) Ester, Polymer With 2-aminoethanol, Isobornyl acrylate

Hazard pictograms



Signal word

Warning

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P261	Avoid breathing mist/vapours.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear eye protection/face protection.
P280	Wear protective gloves.

Response

P302 + P352	IF ON SKIN: Wash with plenty of water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTRE/doctor if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Storage

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Supplemental label information

41,18 % of the mixture consists of component(s) of unknown acute oral toxicity. 52,94 % of the mixture consists of component(s) of unknown acute dermal toxicity. 11,76 % of the mixture consists of component(s) of unknown acute inhalation toxicity. 29,41 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
hexamethylene diacrylate; hexane-1,6-diol diacrylate	20 - < 30	13048-33-4 235-921-9	01-2119484737-22-XXXX	607-109-00-8	Classification: Skin Irrit. 2;H315, Eye Irrit. 2;H319, Skin Sens. 1;H317, Aquatic Acute 1;H400, Aquatic Chronic 2;H411
Dodecyl Acrylate	10 - < 20	2156-97-0 218-463-4	01-2119976296-23-XXXX	607-133-00-9	Classification: Aquatic Acute 1;H400, Aquatic Chronic 1;H410
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphin ate	10 - < 20	84434-11-7 282-810-6	01-2119987994-10-XXXX	-	Classification: Skin Sens. 1B;H317, Aquatic Chronic 2;H411
2-propenoic Acid, 1,1'-(1,6-hexanediyl) Ester, Polymer With 2-aminoethanol	5 - < 10	67906-98-3 -	-	-	Classification: Skin Irrit. 2;H315, Eye Irrit. 2;H319, Skin Sens. 1;H317, STOT SE 3;H335, Aquatic Chronic 3;H412
Isobornyl acrylate	5 - < 10	5888-33-5 227-561-6	01-2119957862-25-XXXX	607-756-00-6	Classification: Eye Irrit. 2;H319, Skin Sens. 1A;H317, Aquatic Acute 1;H400, Aquatic Chronic 1;H410
monoalkyl or monoaryl or monoalkaryl esters of methacrylic acid with the exception of those specified elsewhere in this Annex	5 - < 10	7534-94-3 231-403-1	-	607-134-00-4	Classification: Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335, Aquatic Chronic 2;H411 Specific Concentration Limits: STOT SE 3;H335: C ≥ 10 %
The remaining ingredients are either non-hazardous or below reportable limits	20 - < 30				

List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Union workplace exposure limit(s).

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison centre or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

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

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

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

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards

No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Use extinguishing agent suitable for type of surrounding fire.

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture Not available.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear suitable protective equipment.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.

For emergency responders Keep unnecessary personnel away. Ensure adequate ventilation. Avoid breathing mist/vapours. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid breathing mist/vapours. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

ANNEX 1, PART 1 Categories of dangerous substances

Hazard categories in accordance with Regulation (EC) No 1272/2008

- E1 Hazardous to the Aquatic Environment Acute (Lower-tier requirements = 100 tonnes; Upper-tier requirements = 200 tonnes)

- E2 Hazardous to the Aquatic Environment Chronic (Lower-tier requirements = 200 tonnes; Upper-tier requirements = 500 tonnes)

7.3. Specific end use(s) Observe industrial sector guidance on best practices.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General population

Components	Value	Assessment factor	Notes
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (CAS 84434-11-7)			
Long-term, Systemic, Dermal	0,5 mg/kg	200	Repeated dose toxicity
Long-term, Systemic, Inhalation	0,87 mg/m3	50	Repeated dose toxicity

Derived no effect levels (DNELs)

General population

Components	Value	Assessment factor	Notes
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (CAS 84434-11-7)			
Long-term, Systemic, Oral	0,5 mg/kg	200	Repeated dose toxicity
hexamethylene diacrylate; hexane-1,6-diol diacrylate (CAS 13048-33-4)			
Long-term, Systemic, Dermal	1,66 mg/kg	40	Repeated dose toxicity
Long-term, Systemic, Inhalation	7,2 mg/m3	30	Repeated dose toxicity
Long-term, Systemic, Oral	2,1 mg/kg	120	Repeated dose toxicity
Isobornyl acrylate (CAS 5888-33-5)			
Long-term, Systemic, Dermal	0,83 mg/kg	120	Repeated dose toxicity
Long-term, Systemic, Inhalation	1,45 mg/m3	69	Repeated dose toxicity
Long-term, Systemic, Oral	0,83 mg/kg	120	Repeated dose toxicity

Workers

Components	Value	Assessment factor	Notes
Dodecyl Acrylate (CAS 2156-97-0)			
Long-term, Systemic, Dermal	138,9 mg/kg	72	Repeated dose toxicity
Long-term, Systemic, Inhalation	97,9 mg/m3	18	Repeated dose toxicity
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (CAS 84434-11-7)			
Long-term, Systemic, Dermal	1,4 mg/kg	100	Repeated dose toxicity
Long-term, Systemic, Inhalation	4,93 mg/m3	25	Repeated dose toxicity
hexamethylene diacrylate; hexane-1,6-diol diacrylate (CAS 13048-33-4)			
Long-term, Systemic, Dermal	2,77 mg/kg	24	Repeated dose toxicity
Long-term, Systemic, Inhalation	24,5 mg/m3	18	Repeated dose toxicity
Isobornyl acrylate (CAS 5888-33-5)			
Long-term, Systemic, Dermal	1,39 mg/kg	72	Repeated dose toxicity
Long-term, Systemic, Inhalation	4,9 mg/m3	20,4	Repeated dose toxicity

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (CAS 84434-11-7)			
Freshwater	1,01 µg/l	1000	
Marine water	0,101 µg/l	10000	
Sediment (freshwater)	0,24 mg/kg		
Sediment (marine water)	0,024 mg/kg		
Soil	0,0475 mg/kg		Soil
hexamethylene diacrylate; hexane-1,6-diol diacrylate (CAS 13048-33-4)			
Freshwater	0,007 mg/l	10	
Marine water	0,001 mg/l	100	
Sediment (freshwater)	0,493 mg/kg		
Sediment (marine water)	0,049 mg/kg		
Soil	0,094 mg/kg		Soil
STP	2,7 mg/l	100	
Isobornyl acrylate (CAS 5888-33-5)			
Freshwater	0,001 mg/l	100	
Marine water	0 mg/l	1000	
Sediment (freshwater)	0,145 mg/kg		
Sediment (marine water)	0,015 mg/kg	10	
Soil	0,029 mg/kg		Soil
STP	2 mg/l	10	

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection

Chemical respirator with organic vapour cartridge and full facepiece.

Skin protection

- Hand protection

Wear appropriate chemical resistant gloves.

- Other	Wear appropriate chemical resistant clothing.
Respiratory protection	Chemical respirator with organic vapour cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
Environmental exposure controls	Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Form	Liquid.
Colour	Clear colorless or nearly colorless
Odour	Slight.
Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	Not available.
Flammability	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Flash point	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
pH	Not available.
Kinematic viscosity	Not available.
Solubility	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water) (log value)	Not available.
Vapour pressure	0,02 hPa estimated
Density and/or relative density	
Density	1,03 g/cm3 estimated
Vapour density	Not available.
Particle characteristics	Not available.

9.2. Other information

9.2.1. Information with regard to physical hazard classes No relevant additional information available.

9.2.2. Other safety characteristics

Specific gravity 1,03 estimated

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	None known.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
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Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Health injuries are not known or expected under normal use.

Symptoms Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

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

Acute toxicity Not known.

Components	Species	Test Results
Dodecyl Acrylate (CAS 2156-97-0)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 5000 mg/kg, 24 Hours
Oral		
LD50	Rat	> 2000 mg/kg
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (CAS 84434-11-7)		
<u>Acute</u>		
Oral		
LD50	Rat	> 5000 mg/kg
hexamethylene diacrylate; hexane-1,6-diol diacrylate (CAS 13048-33-4)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	3600 mg/kg
Oral		
LD50	Rat	5 g/kg
Isobornyl acrylate (CAS 5888-33-5)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 3000 mg/kg, 24 Hours
Oral		
LD50	Rat	4350 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory sensitisation Not a respiratory sensitiser.

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity No data available to indicate product or any components present at greater than 0.1% are carcinogenic.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Mixture versus substance information No information available.

11.2. Information on other hazards

Endocrine disrupting properties This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Components	Species		Test Results
Dodecyl Acrylate (CAS 2156-97-0)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	2,62 mg/l, 48 hours
Fish	LC50	Danio rerio	> 0,31 mg/l, 96 hours
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (CAS 84434-11-7)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	2,26 mg/l, 48 hours
Fish	LC50	Danio rerio	1,89 mg/l, 96 hours
			1,89 mg/l, 96 hours
			1 - 10 mg/l, 96 hours
hexamethylene diacrylate; hexane-1,6-diol diacrylate (CAS 13048-33-4)			
Acute			
	EC50	Selenastrum capricornutum (new name Pseudokirchneriella subcapitata)	2,3 mg/l, 72 h
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	2,6 mg/l, 48 hours
Fish	LC50	Oryzias latipes	0,38 mg/l, 96 h
			0,38 mg/l, 96 hours
Chronic			
Fish	NOEC	Oryzias latipes	0,0723 mg/l, 39 d
Isobornyl acrylate (CAS 5888-33-5)			
Aquatic			
Acute			
Fish	LC50	Danio rerio	0,704 mg/l, 96 hours
monoalkyl or monoaryl or monoalkyaryl esters of methacrylic acid with the exception of those specified elsewhere in the Annex (CAS 7534-94-3)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	1,1 mg/l, 48 hours
Fish	LC50	Danio rerio	1,79 mg/l, 96 hours

12.2. Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

hexamethylene diacrylate; hexane-1,6-diol diacrylate 3,08
monoalkyl or monoaryl or monoalkyaryl esters of methacrylic acid 4,76
with the exception of those specified elsewhere in this Annex

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Endocrine disrupting properties This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

12.7. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexamethylene diacrylate; hexane-1,6-diol diacrylate, Dodecyl Acrylate)
14.3. Transport hazard class(es)	
Class	9
Subsidiary hazard	-
Label(s)	9
Hazard No. (ADR)	90
Tunnel restriction code	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexamethylene diacrylate; hexane-1,6-diol diacrylate, Dodecyl Acrylate)
14.3. Transport hazard class(es)	
Class	9
Subsidiary hazard	-
Label(s)	9
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexamethylene diacrylate; hexane-1,6-diol diacrylate, Dodecyl Acrylate)
14.3. Transport hazard class(es)	
Class	9
Subsidiary hazard	-
Label(s)	9
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (hexamethylene diacrylate; hexane-1,6-diol diacrylate, Dodecyl Acrylate)
14.3. Transport hazard class(es)	
Class	9
Subsidiary hazard	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
ERG Code	9L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.

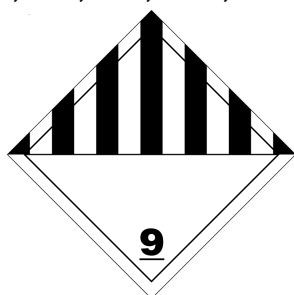
Cargo aircraft only

Allowed with restrictions.

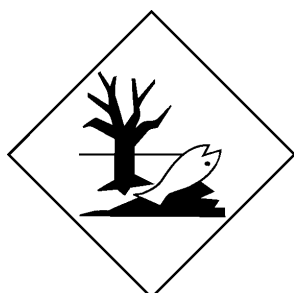
IMDG

- 14.1. UN number** UN3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexamethylene diacrylate; hexane-1,6-diol diacrylate, Dodecyl Acrylate), MARINE POLLUTANT
14.3. Transport hazard class(es)
 Class 9
 Subsidiary hazard -
14.4. Packing group III
14.5. Environmental hazards
 Marine pollutant Yes
EmS F-A, S-F
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
14.7. Maritime transport in bulk according to IMO instruments Not established.

ADN; ADR; IATA; IMDG; RID



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations**

- Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**
Not listed.
- Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended**
Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**
Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**
Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**
Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**
Not listed.
- Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**
Not listed.
- Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**
Not listed.

Authorisations

- Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended - Conditions of restriction given for the associated entry number should be considered

Not listed.

Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex I, as amended

Not listed.

Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex II, as amended

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

ANNEX 1, PART 1 Categories of dangerous substances

Hazard categories in accordance with Regulation (EC) No 1272/2008

- E1 Hazardous to the Aquatic Environment Acute

- E2 Hazardous to the Aquatic Environment Chronic

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended Use of this product by young persons under the age of 18 is not allowed in accordance with the Management of Health and Safety at Work Regulations 1999 [SI 1999/3242], as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

France regulations

France INRS Table of Occupational Diseases

Dodecyl Acrylate (CAS 2156-97-0)

Lésions eczématiformes de mécanisme allergique 65

hexamethylene diacrylate; hexane-1,6-diol diacrylate (CAS 13048-33-4)

Lésions eczématiformes de mécanisme allergique 65

Isobornyl acrylate (CAS 5888-33-5)

Lésions eczématiformes de mécanisme allergique 65

monoalkyl or monoaryl or monoalkaryl esters of methacrylic acid with the exception of those specified elsewhere in this Annex (CAS 7534-94-3)

Lésions eczématiformes de mécanisme allergique 65

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).

CAS: Chemical Abstract Service.

CEN: European Committee for Standardization.

IATA: International Air Transport Association.

IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.

IMDG: International Maritime Dangerous Goods.

MAC: Maximum Allowed Concentration.

MARPOL: International Convention for the Prevention of Pollution from Ships.

PBT: Persistent, bioaccumulative and toxic.

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

STEL: Short term exposure limit.

TLV: Threshold Limit Value.

TWA: Time Weighted Average.

VLE: Exposure Limit Value.

VME: Exposure Average Value.

vPvB: Very persistent and very bioaccumulative.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements, which are not written out in full under sections 2 to 15

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.
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.

Revision information

None.

Training information

Follow training instructions when handling this material.

Disclaimer

EFI UK Ltd. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.