

SAFETY DATA SHEET

1. Identification

Product identifier: INFINAM® ST 6100 L

Other means of identification

Recommended use: 3D printing

Recommended restrictions: Not determined.

Manufacturer/Importer/Distributor Information

Company Name : Evonik Operations GmbH
Rellinghauser Str. 1-11
45128 Essen
Germany

Telephone : +49 2365 49 9272

E-mail : MSDSInfo-COHP@evonik.com

Emergency telephone number:

24-Hour Health : +49 2365 49 2232
Emergency

2. Hazard(s) identification

Classification according to GHS

Health Hazards

Skin Corrosion/Irritation	Category 3
Serious Eye Damage/Eye Irritation	Category 2B
Skin sensitizer	Category 1

Environmental Hazards

Acute hazards to the aquatic environment	Category 2
Chronic hazards to the aquatic environment	Category 2

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: Causes mild skin irritation.
 Causes eye irritation.
 May cause an allergic skin reaction.
 Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves.

Response: IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see on this label). Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Collect spillage.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards: Vapours may form explosive mixtures with air.

3. Composition/information on ingredients

Mixtures

General information: Resin.

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	No data available.	72869-86-4	20 - <90%
2-hydroxyethylmethacrylate	No data available.	868-77-9	20 - <90%
(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate	No data available.	42594-17-2	10 - <90%
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.	162881-26-7	1 - <5%
ethane-1,2-diol dimethacrylate	No data available.	97-90-5	0,1 - <1%

methacrylic acid	No data available.	79-41-4	0,1 - <1%
------------------	--------------------	---------	-----------

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

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

General information:	Pay attention to self-protection. Move out of dangerous area. Keep warm, position comfortably, and cover well. Do not leave the victim unattended.
Inhalation:	Move to fresh air. Get medical attention immediately.
Skin Contact:	Wash off affected area immediately with plenty of water for at least 15 minutes. Get medical attention immediately.
Eye contact:	Rinse immediately with plenty of water for 15 minutes and seek advice of an eye specialist.
Ingestion:	Do NOT induce vomiting. Seek medical advice.
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms:	irritant effects sensitising effects
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Continue with first aid measures. Depending on the pathology and clinical findings, patient monitoring and symptomatic treatment are necessary.
-------------------	---

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, foam, CO₂, dry powder.

Unsuitable extinguishing media: High volume water jet.

Special hazards arising from the substance or mixture: May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition. Nitrogen Oxides
Under certain conditions of combustion traces of other toxic substances cannot be excluded

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	Also keep emptied containers away from sources of heat and ignition. Containers exposed to heat (fire) may build up pressure. Cool by splashing with water. Water for fire fighting must not be introduced in the sewer system, subsoil, or surface waters. Assure that there are sufficient fire water retaining facilities Contaminated fire fighting water must be disposed of in conformity with the regulations of the local authorities.
Special protective equipment for fire-fighters:	In case of fire: wear a self contained respiratory apparatus

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Do not breathe vapours or spray mist.
Accidental release measures:	No data available.
Methods and material for containment and cleaning up:	Absorb with liquid-binding material e.g. universal binder Fill into marked, sealable containers. Dispose of contaminated material as a waste in a correct manner.
Environmental Precautions:	Do not allow to be introduced into sewage water, soil, waterbodies, ground water, surface waters.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	If possible, use material transfer/filling, metering and blending plants that are closed.
Safe handling advice:	Provide sufficient ventilation and exhaust at the workplace. Stir and/or shake well before use.
Contact avoidance measures:	No data available.

Storage

Safe storage conditions:	Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking. Protect from light. Keep containers tightly closed in a cool, well-ventilated place. Recommended storage temperature: 10 - 30 °C. Length of storage <= 12 months
Safe packaging materials:	No data available.
Storage Temperature:	10 - 30 °C

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Observe national threshold limit values.

Biological Limit Values

Observe national threshold limit values.

Appropriate Engineering Controls

If possible, use material transfer/filling, metering and blending plants that are closed.

Individual protection measures, such as personal protective equipment

General information:

No data available.

Eye/face protection:

close-fitting protective goggles (e.g. closed goggles) or face protection

Skin Protection

Hand Protection:

Material: nitrile rubber (Camatril Velours)
Break-through time: > 30 min
Glove thickness: 0,4 mm
Additional Information: No protective glove type has been specified for use with this product. The glove listed is only a preliminary recommendation issued by Kächele-Cama Latex GmbH, Am Kreuzacker 9, D-36124 Eichenzell, www.kcl.de, which firm offers such protective gloves. The glove must be changed immediately if any changes in it occur (e.g. swelling, wear).

Other:

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection:

In case of dusts/vapours/aerosols being formed or if the limit values like TLV are exceeded: use respiratory equipment with suitable filter or wear a self contained respiratory apparatus

Hygiene measures:

Avoid contact with skin and eyes. Do not breathe in vapours or aerosols. Take off immediately all contaminated clothing. When using do not eat, drink or smoke.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:

liquid

Form:

Viscous Liquid

Color:

Black

Odor:

Characteristic

Odor Threshold:

Not determined., Not required by safety or application considerations.

Freezing point:	No data available. Not required by safety or application considerations.
Boiling Point:	No data available. Not applicable liquid
Flammability:	
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	see Explosiveness
Explosive limit - lower:	see Explosiveness
Flash Point:	266 °F/130 °C (ASTM D 3278)
Autoignition Temperature:	The substance or mixture is not classified as pyrophoric. The substance or mixture is not classified as self heating.
Decomposition Temperature:	No data available. Not required by safety or application considerations.
pH:	Not applicable substance/mixture is non-soluble (in water)
Viscosity	
Dynamic viscosity:	450 mPa.s (77 °F/25 °C)
Kinematic viscosity:	113,69 mm ² /s (104 °F/40 °C)
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	Practically Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available. Not required by safety or application considerations.
Vapor pressure:	No data available. Not required by safety or application considerations.
Relative density:	No data available.
Density:	1,0958 g/cm ³
Bulk density:	No data available.
Relative vapor density:	No data available.
Other information	
Explosive properties:	Not explosive
Oxidizing properties:	The substance or mixture is not classified as oxidizing.
Minimum ignition temperature:	No data available. Not required by safety or application considerations.
Formation of Flammable Gases:	Substance or mixture, which in contact with water, does not emit flammable gas
Peroxides:	The substance or mixture is not classified as organic peroxide.
Metal Corrosion:	Not corrosive to metals
Evaporation Rate:	No data available. Not required by safety or application considerations.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	No decomposition if used as directed.

Possibility of hazardous reactions: Polymerization with heat evolution may occur in the presence of radical forming substances(e.g. peroxides), reducing substances, and/or heavy metal ions.

Conditions to avoid: Protect against exposure to light, heat, sources of ignition. The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

Incompatible Materials: Peroxides, amines, sulfur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents. Mineral Acid Free radical initiators

Hazardous Decomposition Products: None when used as directed.

11. Toxicological information

Information on toxicological effects

Information on likely routes of exposure

Inhalation: Information on effects are given below.

Skin Contact: Information on effects are given below.

Eye contact: Information on effects are given below.

Ingestion: Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified for acute toxicity based on available data.

Components:

7,7,9-(resp. 7,9,9- LD 50 (Rat): > 5.000 mg/kg

)trimethyl-4,13-dioxo-

3,14-dioxa-5,12-

diazahexadecane-1,16-

diol-dimethacrylate

2- LD 50 (Rat): 5.564 mg/kg

hydroxyethylmethacrylat

e

(octahydro-4,7-methano- LD 50 (Rat): > 5.000 mg/kg

1H-

indenediyl)bis(methylene

) diacrylate

phenyl bis(2,4,6- LD 50 (Rat): > 2.000 mg/kg

trimethylbenzoyl)-

phosphine oxide

No deaths observed.

ethane-1,2-diol dimethacrylate	LD 50 (Rat): > 5.000 mg/kg
methacrylic acid	LD 50 (Rat): 1.320 mg/kg

Dermal

Product:	ATEmix: > 5.000 mg/kg
Components:	
7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	No classification
2-hydroxyethylmethacrylate	LD 50 (Rabbit): > 5.000 mg/kg
(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate	LD 50 (Rat): > 2.000 mg/kg
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No classification
ethane-1,2-diol dimethacrylate	No classification
methacrylic acid	LD 50 (Rabbit): 500 mg/kg

Inhalation

Product:	Not classified for acute toxicity based on available data.
Components:	
7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	Vapour, No data available. Dust and mist, No data available.
2-hydroxyethylmethacrylate	Vapour, No data available. Dust and mist, No data available.
(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate	Vapour, No data available. Dust and mist, No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available., Dust and mist No data available., Vapour
ethane-1,2-diol dimethacrylate	No data available., Vapour No data available., Dust and mist
methacrylic acid	LC 50 (Acute toxicity estimate, 4 h): 11 mg/l Vapour LC 50 (Acute toxicity estimate, 4 h): 1,5 mg/l Dust and mist

Repeated dose toxicity

Product:	No data available.
Components:	
7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo-	No data available.

3,14-dioxa-5,12-diazaheptadecane-1,16-diol-dimethacrylate	No data available.
2-hydroxyethylmethacrylate (octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	No data available.
methacrylic acid	NOAEL (Rat(Female, Male), Inhalation, 5 days/weeks, 6 hours/day): 100 ppm Findings: damage to the nasal mucosa

Skin Corrosion/Irritation

Product:	No data available.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazaheptadecane-1,16-diol-dimethacrylate	OECD 404 (Rabbit): Not irritating , 4 h
2-hydroxyethylmethacrylate (octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate	Draize (Rabbit): Not irritating , 24 h
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	OECD 439 (Human, reconstructed epidermis (RhE) model): Not irritating
ethane-1,2-diol dimethacrylate	OECD 404 (Rabbit): Not irritating
methacrylic acid	FDA 1959 Draize, occlusive (Rabbit): Not irritating , 24 h OECD 404 (Rabbit): Corrosive. , < 3 min

Serious Eye Damage/Eye Irritation

Product:	No data available.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazaheptadecane-1,16-diol-dimethacrylate	OECD 405 (Rabbit): Not irritating
2-hydroxyethylmethacrylate (octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate	Draize (Rabbit): Moderately irritating
	OECD 437 (Bovine cornea): Not irritating

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide ethane-1,2-diol dimethacrylate methacrylic acid

OECD 405 (Rabbit): Not irritating

Draize (Rabbit): Not irritating

OECD 405 (Rabbit): Risk of serious damage to eyes.

Respiratory or Skin Sensitization

Product:

No data available.

Components:

7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-

Local Lymph Node Assay (LLNA), OECD 429 (Mouse): Skin sensitizer

3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate

2-

Buehler Test (Guinea Pig): Skin sensitizer

hydroxyethylmethacrylate

Sensitization test, OECD 406 (Guinea Pig): Skin sensitizer

(octahydro-4,7-methano-1H-

indenediyl)bis(methylene) diacrylate

Maximization Test, OECD 406 (Guinea Pig): Strong skin sensitizer.

phenyl bis(2,4,6-trimethylbenzoyl)-

phosphine oxide

ethane-1,2-diol

Local Lymph Node Assay (LLNA), OECD 429 (Mouse): Skin sensitizer

dimethacrylate

methacrylic acid

Buehler Test, OECD 406 (Guinea Pig): Not a skin sensitizer.

Carcinogenicity

Product:

No data available.

Components:

7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-

No data available.

3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate

2-

No data available.

hydroxyethylmethacrylate

No data available.

(octahydro-4,7-methano-1H-

indenediyl)bis(methylene) diacrylate

No data available.

phenyl bis(2,4,6-trimethylbenzoyl)-

phosphine oxide

ethane-1,2-diol

No data available.

dimethacrylate

methacrylic acid

No data available.

Germ Cell Mutagenicity

In vitro

Product:

No data available.

Components:

7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo- 3,14-dioxa-5,12- diazahexadecane-1,16- diol-dimethacrylate 2- hydroxyethylmethacrylat e (octahydro-4,7-methano- 1H- indenediyl)bis(methylene) diacrylate phenyl bis(2,4,6- trimethylbenzoyl)- phosphine oxide ethane-1,2-diol dimethacrylate methacrylic acid	Ames test (OECD 471): negative gene mutation test (HGPRT-Test): negative Ames test (OECD 471): negative gene mutation test (OECD 476): negative Ames test (OECD 471): negative Micronucleus test (OECD 487): negative gene mutation test (OECD 471): negative Chromosomal aberration (OECD 473): negative gene mutation test (OECD 476): negative Chromosomal aberration (OECD 473): positive Ames test (OECD 471): negative
--	--

In vivo

Product: Components: 7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo- 3,14-dioxa-5,12- diazahexadecane-1,16- diol-dimethacrylate 2- hydroxyethylmethacrylat e (octahydro-4,7-methano- 1H- indenediyl)bis(methylene) diacrylate phenyl bis(2,4,6- trimethylbenzoyl)- phosphine oxide ethane-1,2-diol dimethacrylate methacrylic acid	No data available. No data available. Micronucleus test (OECD 474) pharyngeal probe (Rat, Male): negative No data available. No data available. No data available. Chromosomal aberration (OECD 478) Inhalation - vapor (Mouse, Male): negative
---	--

Reproductive toxicity

Product: Components: 7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo- 3,14-dioxa-5,12- diazahexadecane-1,16- diol-dimethacrylate 2- hydroxyethylmethacrylate (octahydro-4,7-methano- 1H- indenediyl)bis(methylene) diacrylate	No data available. No data available. No data available. No data available.
---	--

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	No data available.
methacrylic acid	No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Components:

7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	No data available.
2-	No data available.

hydroxyethylmethacrylate (octahydro-4,7-methano-1H-	No data available.
---	--------------------

indenediyl)bis(methylene) diacrylate	No data available.
--------------------------------------	--------------------

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	No data available.

methacrylic acid	Inhalation - vapor: Respiratory system - Category 3 with respiratory tract irritation.
------------------	--

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Components:

7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	No data available.
2-	No data available.

hydroxyethylmethacrylate (octahydro-4,7-methano-1H-	No data available.
---	--------------------

indenediyl)bis(methylene) diacrylate	No data available.
--------------------------------------	--------------------

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	No data available.

methacrylic acid	No data available.
------------------	--------------------

Aspiration Hazard

Product: No data available.

Components:

7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo- 3,14-dioxa-5,12- diazahexadecane-1,16- diol-dimethacrylate	Not classified
2- hydroxyethylmethacrylate	Not classified
(octahydro-4,7-methano- 1H- indenediyl)bis(methylene) diacrylate	Not classified
phenyl bis(2,4,6- trimethylbenzoyl)- phosphine oxide	Not applicable
ethane-1,2-diol dimethacrylate	Not classified
methacrylic acid	Not classified

Information on health hazards

Other hazards

Product: No toxicological tests have been conducted with the product itself.;

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Components:

7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo- 3,14-dioxa-5,12- diazahexadecane-1,16- diol-dimethacrylate	LC 50 (Danio rerio, 96 h): 10,1 mg/l
2- hydroxyethylmethacrylat e	LC 50 (Oryzias latipes, 96 h): > 100 mg/l
(octahydro-4,7-methano- 1H- indenediyl)bis(methylene)) diacrylate	LC 50 (Danio rerio, 96 h): 1,65 mg/l NOEC (Danio rerio, 96 h): 0,63 mg/l
phenyl bis(2,4,6- trimethylbenzoyl)- phosphine oxide	In the range of water solubility not toxic under test conditions.
ethane-1,2-diol dimethacrylate	LC 50 (Brachydanio rerio (zebrafish), 96 h): 15,95 mg/l

methacrylic acid LC 50 (Oncorhynchus mykiss, 96 h): 85 mg/l
 NOEC (Oncorhynchus mykiss, 96 h): 12 mg/l

Aquatic Invertebrates

Product:

No data available.

Components:

7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diol-dimethacrylate EC 50 (Daphnia magna, 48 h): > 1,2 mg/l No toxicity at the limit of solubility

2-hydroxyethylmethacrylate EC 50 (Daphnia magna, 48 h): 380 mg/l
 NOEC (Daphnia magna, 48 h): 171 mg/l

(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate EC 50 (Daphnia magna, 48 h): 2,36 mg/l

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide In the range of water solubility not toxic under test conditions.

ethane-1,2-diol dimethacrylate EC 50 (Daphnia magna, 48 h): 44,9 mg/l

methacrylic acid EC 50 (Daphnia magna, 48 h): > 130 mg/l Own study
 NOEC (Daphnia magna, 48 h): 130 mg/l

Toxicity to Aquatic Plants

Product:

No data available.

Components:

7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diol-dimethacrylate EC 50 (Desmodesmus subspicatus (green algae), 72 h): > 0,68 mg/l (OECD 201) No toxicity at the limit of solubility

2-hydroxyethylmethacrylate EC 50 (Selenastrum capricornutum (green algae), 72 h): 836 mg/l (OECD 201)
 EC 50 (Selenastrum capricornutum (green algae), 72 h): 345 mg/l (OECD 201)

(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 1,6 mg/l (OECD 201)
 EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 0,71 mg/l (OECD 201)

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide No data available.

ethane-1,2-diol dimethacrylate EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 17,3 mg/l (OECD 201)
 EC 10 (Algae (Pseudokirchneriella subcapitata), 72 h): 6,93 mg/l (OECD 201)

methacrylic acid EC 50 (Selenastrum capricornutum (green algae), 72 h): 45 mg/l (OECD 201)
 EC 50 (Selenastrum capricornutum (green algae), 72 h): 8,2 mg/l (OECD 201)

Toxicity to microorganisms

Product:	No data available.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	NOEC (activated sludge, 14 d): 36,1 mg/l
2-hydroxyethylmethacrylate	EC 50 (Pseudomonas fluorescens, 16 h): > 3.000 mg/l
(octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate	NOEC (activated sludge, 28 d): 100 mg/l
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	EC 50 (Pseudomonas putida, 3 h): 570 mg/l (OECD 209)
methacrylic acid	EC 10 (Pseudomonas putida, 17 h): 100 mg/l (DIN 38412 part 8) Own study EC 50 (Pseudomonas putida, 17 h): 270 mg/l (DIN 38412 part 8)

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	No data available.
2-hydroxyethylmethacrylate	No data available.
(octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	No data available.
methacrylic acid	NOEC (Danio rerio, 35 d): 10 mg/l (OECD 210) LC 50 (Danio rerio, 35 d): 42 mg/l (OECD 210) Lowest Observed Effect Concentration (Danio rerio, 35 d): 23 mg/l (OECD 210)

Aquatic Invertebrates

Product:	No data available.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-	No data available.

diazahexadecane-1,16- diol-dimethacrylate 2- hydroxyethylmethacrylate	NOEC (Daphnia magna, 21 d): 24,1 mg/l (OECD 211) EC 50 (Daphnia magna, 21 d): 90,1 mg/l (OECD 211)
(octahydro-4,7-methano- 1H- indenediyl)bis(methylene) diacrylate	No data available.
phenyl bis(2,4,6- trimethylbenzoyl)- phosphine oxide ethane-1,2-diol dimethacrylate methacrylic acid	No data available. NOEC (Daphnia magna, 21 d): 5,05 mg/l (OECD 211) NOEC (Daphnia magna, 21 d): 53 mg/l (OECD 211) EC 50 (Daphnia magna, 21 d): 70 mg/l (OECD 211)

Toxicity to Aquatic Plants

Product:

No data available.

Components:

7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo- 3,14-dioxa-5,12- diazahexadecane-1,16- diol-dimethacrylate 2- hydroxyethylmethacrylate	NOEC (Desmodesmus subspicatus (green algae), 72 h): 0,21 mg/l (OECD 201) No toxicity at the limit of solubility NOEC (Selenastrum capricornutum (green algae), 72 h): 400 mg/l (OECD 201) NOEC (Selenastrum capricornutum (green algae), 72 h): 160 mg/l (OECD 201)
(octahydro-4,7-methano- 1H- indenediyl)bis(methylene) diacrylate	No data available.
phenyl bis(2,4,6- trimethylbenzoyl)- phosphine oxide ethane-1,2-diol dimethacrylate methacrylic acid	No data available. No data available. No data available.

Toxicity to microorganisms

Product:

No data available.

Components:

7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo- 3,14-dioxa-5,12- diazahexadecane-1,16- diol-dimethacrylate 2- hydroxyethylmethacrylate	NOEC (activated sludge, 14 d): 36,1 mg/l EC 50 (Pseudomonas fluorescens, 16 h): > 3.000 mg/l
(octahydro-4,7-methano- 1H- indenediyl)bis(methylene) diacrylate	NOEC (activated sludge, 28 d): 100 mg/l
phenyl bis(2,4,6- trimethylbenzoyl)-	No data available.

phosphine oxide	EC 50 (Pseudomonas putida, 3 h): 570 mg/l (OECD 209)
ethane-1,2-diol dimethacrylate	
methacrylic acid	
	EC 10 (Pseudomonas putida, 17 h): 100 mg/l (DIN 38412 part 8) Own study
	EC 50 (Pseudomonas putida, 17 h): 270 mg/l (DIN 38412 part 8)

Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	22 % (28 d, OECD 301 B) The product is not biodegradable., aerobic 22 % (28 d, OECD 301 F) The product is not biodegradable. Own study, aerobic
2-hydroxyethylmethacrylate	84 % (28 d, OECD 301 D) The product is easily biodegradable.
(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate	24 % (28 d, OECD 301 D) The product is not biodegradable. 25 % (28 d, OECD 301 D) The product is not biodegradable. 28 % (28 d, OECD 301 F) The product is not biodegradable., aerobic
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	69 % (28 d, OECD 301 F) The 10 day time window criterion is not fulfilled. Readily biodegradable
methacrylic acid	86 % (28 d, OECD 301 D) The 10 day time window criterion is not fulfilled. The product is biodegradable., aerobic

BOD/COD Ratio

Product:	No data available.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	No data available.
2-hydroxyethylmethacrylate	No data available.
(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	No data available.
methacrylic acid	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	Significant accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).
2-hydroxyethylmethacrylate	No data available.
(octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate	No data available.
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).
methacrylic acid	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	Log Kow: No data available. Not required by safety or application considerations.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	Log Kow: 3,39 (OECD 117)
2-hydroxyethylmethacrylate	Log Kow: 0,42 (OECD 107)
(octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate	Log Kow: 4,64 20 °C (OECD 117)
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
ethane-1,2-diol dimethacrylate	Log Kow: 2,4 (OECD 117) Own study
methacrylic acid	Log Kow: 0,93

Mobility in soil:

Product	No data available.
Components:	
7,7,9-(resp. 7,9,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diol-dimethacrylate	Substance may bind to solid soil phase, sediment or clarification sludge due to its adsorptive behaviour. Very sparingly volatile from the aqueous phase. The substance is distributed mainly into the water phase and the soil.
2-hydroxyethylmethacrylate	No data available.

(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate
 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide
 ethane-1,2-diol dimethacrylate
 methacrylic acid

No data available.
 No data available.
 Very sparingly volatile from the aqueous phase. The substance is distributed mainly into the water phase and the soil.
 No data available.

Product No data available.

Components:

7,7,9-(resp. 7,9,9-)trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazaheptadecane-1,16-diol-dimethacrylate
 2-hydroxyethylmethacrylate
 (octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate
 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide
 ethane-1,2-diol dimethacrylate
 methacrylic acid

No data available.
 No data available.
 No data available.
 No data available.
 No data available.
 No data available.

Other adverse effects:

Other hazards

Product: No further ecotoxicological data are available.

13. Disposal considerations

Disposal methods: With respect to local regulations, e.g. dispose of to suitable waste incineration plant.

Contaminated Packaging: No data available.

14. Transport information

International Regulations

IATA-DGR

UN/ID No. : UN 3082
 Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. ((octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate)
 Class : 9
 Packing group : III
 Labels : 9MI
 Packing instruction (cargo) : 964

aircraft)
 Packing instruction : 964
 (passenger aircraft)
 Environmentally hazardous : yes

IMDG-Code

UN number or ID number : UN 3082
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
 N.O.S.
 ((octahydro-4,7-methano-1H-indenediyl)bis(methylene)
 diacrylate)
 Class : 9
 Packing group : III
 Labels : 9
 EmS Code : F-A, S-F
 Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. Regulatory information

International regulations
Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

Inventory Status:

Australia Industrial Chem. Act (AIIC):	Not in compliance with the inventory.	
Canada DSL Inventory List:	Not in compliance with the inventory.	
China Inv. Existing Chemical Substances:	E (special case)	Simplified notification under specific conditions. Valid only for specific importer.
Japan (ENCS) List:	Q (quantity restricted)	
Korea Existing Chemicals Inv. (KECI):	E (special case)	Polymer Exemption under K-REACH. Valid only for specific importer.
New Zealand Inventory of	On or in compliance with the inventory	

Chemicals:		
Philippines PICCS:	Not in compliance with the inventory.	
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory.	
US TSCA Inventory:	On or in compliance with the inventory	Commercial Status: Active
Switzerland New Subs Notified/Registered:	On or in compliance with the inventory	
EINECS, ELINCS or NLP:	On or in compliance with the inventory	EU-REACH compliant for Evonik Operations GmbH and its affiliates as EU manufacturer/EU importer.

16. Other information, including date of preparation or last revision

Issue Date: 26.10.2020

Version #: 2.7

Further Information: No data available.

Revision Information: Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Disclaimer: This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.