

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

Version: 02


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

1.1. Product identifier	
Product Name:	Kinetics SHIELD Extra Gloss top
Item number:	KGPTEN
1.2. Relevant identified uses of the substance or mixture and uses advised against	
Identified uses:	UV-curing nail polish, top coat, cosmetic.
Uses advised against:	Manufacture of food products.
1.3. Details of the supplier of the safety data sheet	
Responsible person:	Kinetics Nail Systems, Ltd 3K Kurzemes pr., Riga, Latvia, LV-1067, Latvia TEL: +(371) 6 7295 260 FAX: +(371) 6 7873 525 e-mail: info@kineticsbeauty.com web: www.kineticsbeauty.com E-mail of person responsible for Product Safety Data Sheet: info@kineticsbeauty.com
1.4. Emergency telephone number	
	EU:112 Emergency telephone for other regions to be filled out by local business

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture	
According to regulation (EC) No 1272/2008:	Skin Irrit. 2 (H315) – Skin corrosion/ irritation, Hazard Category 2. Skin Sens. 1B (H317) – Sensitisation – Skin, hazard category 1B. Eye Irrit. 2 (H319) – Serious eye damage/eye irritation, Hazard Category 2. Repr. 1B (H360Fd) – Reproductive toxicity, Hazard Category 1B. STOT RE 2 (H373) – Specific target organ toxicity – Repeated exposure, Hazard Category 2. Aquatic Chronic 2 (H411) – Long-term (chronic) aquatic hazard, Category 2.
Important adverse physicochemical, human health and environmental effects:	Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May damage fertility. Suspected of damaging the unborn child. May cause damage to organs (lungs) through prolonged or repeated exposure (if inhaled). Toxic to aquatic life with long lasting effects.
2.2. Label elements	
According to regulation (EC) No 1272/2008:	 <p>Danger</p>

	<p>H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H360Fd May damage fertility. Suspected of damaging the unborn child. H373 May cause damage to organs (lungs) through prolonged or repeated exposure (if inhaled). H411 Toxic to aquatic life with long lasting effects.</p> <p>Contains: 7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate; 2-Hydroxyethyl methacrylate; α-D-Glucopyranoside, β-D-fructofuranosyl, benzoate; Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide.</p> <p>P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read carefully and follow all instructions. P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe mist/vapours/spray. P264 Wash hands/ affected body parts thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 IF ON SKIN: Wash with plenty of water/ soap. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/ attention. P391 Collect spillage. P405 Store locked up. P501 Dispose of contents/container to in accordance with local/ regional/ national/ international regulation.</p>
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2.3. Other hazards

Product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

Toxicological information/Ecological information: Based on available data the mixture does not contain ingredients considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration of 0.1% or more.

See section 11 for more detailed information on health effects and symptoms.

SECTION 3: Composition/information on ingredients

3.1. Substances	Not relevant.					
3.2. Mixtures						
Ingredient name [INCI]	INDEX No.	CAS No.	EINECS/ EC No.	Conc. (%)	Classification Regulation (EC) 1272/2008 (CLP)	Type
7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate [DI-HEMA TRIMETHYLHEXYL DICARBAMATE]	607-767-00-6	72869-86-4	276-957-5	45-60	Skin Sens. 1B, H317 Aquatic Chronic 2, H411	[1]
2-Hydroxyethyl methacrylate [HEMA]	607-124-00-X	868-77-9	212-782-2	25-35	Skin Irrit. 2, H315 Skin Sens. 1, H317	[1]

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					Eye Irrit. 2, H319	
α -d-Glucopyranoside, β -d-fructofuranosyl, benzoate [SUCROSE BENZOATE]	N/A	12738-64-6	235-795-5	5-15	STOT RE 2, H373 (lungs) (inhalation)	[1]
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide [TRIMETHYLBENZOYL DIPHENYLPHOSPHINE OXIDE]	015-203-00-X	75980-60-8	278-355-8	1-5	Skin Sens. 1B, H317 Repr. 1B, H360Fd	[1]
<p>There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.</p> <p>See section 16 for the full text of the R and H phrases declared above.</p> <p>Occupational exposure limits, if available, are listed in section 8.</p> <p>[1] Substance classified with a health or environmental hazard [2] Substance with a workplace exposure limit [3] PBT-substance [4] vPvB-substance [5] SEVESO SUBSTANCE</p>						

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice:	Remove contaminated clothing.
<i>Inhalation:</i>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison centre or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
Skin contact:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Eye contact:	Flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Ingestion:	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

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

Eye contact:	May causes serious eye irritation. Symptoms might be as follows: Conjunctivitis, lacrimation, redness, irritation or pain, reversible cornea damage and swelling of eyes.
<i>Inhalation:</i>	Harmful if inhaled - may cause damage to lungs if inhaled. Possible symptoms might be: difficulty to breath, nausea, fatigue, cough, unconsciousness.
Skin contact:	Irritating to the skin, might cause skins sensitization. Symptoms might be as follows: Redness, inflammation, rash, urticaria, pain or irritation and dermatitis.

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Ingestion:	May be harmful if swallowed with long lasting effects. Symptoms might be as follows: Gastrointestinal symptoms, such as nausea, vomiting, abdominal pain or irritation, and diarrhoea could develop. May affect male reproductive system (atrophy of the testes). May cause infertility.
4.3. Indication of any immediate medical attention and special treatment needed	
Specific treatments:	Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

See section 11 for more detailed information on health effects and symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media	
<i>Suitable extinguishing media:</i>	Use dry chemical, CO ₂ , water spray (fog) or foam. Use an extinguishing agent suitable for the surrounding fire.
<i>Unsuitable extinguishing media:</i>	Do not use full power water jet.
5.2. Special hazards arising from the substance or mixture	
	Hazards from the substance or mixture: In a fire or if heated, a pressure increase will occur and the container may burst. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Hazardous decomposition products may include: Carbon monoxide (CO) Carbon dioxide (CO ₂) Nitrogen oxides (NO _x) Sulfur oxides (SO _x) Other unidentified organic and inorganic substances. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterways, sewer or drain.
5.3. Advice for firefighters	
	If water is used to cool closed containers to prevent pressure build-up, fog nozzles are preferred. Full protective equipment, including self-contained breathing apparatus is needed to protect fire-fighters from exposure to coating's hazardous ingredients and hazardous decomposition products.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
<i>For non-emergency personnel:</i>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<i>For emergency responders:</i>	If specialised clothing is required to deal with the spillage, take note of any information in Section "Exposure controls/personal protection" on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2. Environmental precautions	
	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting

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	material. May be toxic to the environment if released in large quantities. Collect spillage.
6.3. Methods and material for containment and cleaning up	
<i>Small spill:</i>	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<i>Large spill:</i>	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
6.4. Reference to other sections	
	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.



SECTION 7: Handling and storage

7.1. Precautions for safe handling	
Protective measures:	Put on appropriate personal protective equipment (see Section "Exposure controls/personal protection"). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section "Exposure controls/personal protection" for additional information on hygiene measures.
7.2. Conditions for safe storage, including any incompatibilities	
Storage:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section "Stability and reactivity") and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section "Stability and reactivity" for incompatible materials before handling or use.
7.3. Specific end use(s)	
Industrial sector specific solutions:	Not available.


SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Occupational exposure limits:	<p>Limit values are laid down throughout the EU, but each Member State establishes its own national OELs, often going beyond EU legislation. OELs are set by competent national authorities and other relevant institutions.</p> <p>EU (IOELV): <i>Not available.</i></p> <p>United Kingdom (EH40): <i>Not available.</i></p> <p>Latvia (AER, reg.325/2011): <i>Not available.</i></p> <p>Germany (TRGS-900): <i>Not available.</i></p>
Recommended monitoring procedures:	<p>If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.</p>
8.2. Exposure controls	
Appropriate engineering Controls:	<p>Good general ventilation should be sufficient to control worker exposure to airborne contaminants.</p>
Individual protection measures:	
<u>Hygiene measures:</u>	<p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.</p> <p>Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.</p>
<u>Respiratory protection:</u>	<p>Ensure adequate ventilation.</p> <p>An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area.</p> <p>Filter type: A</p>
<u>Eye/face protection:</u>	 <p>Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.</p>
<u>Skin protection:</u>	
<i>Hand protection:</i>	 <p>Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): nitrile rubber (NBR; ≥ 0.4 mm thickness). Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): nitrile rubber (NBR; ≥ 0.4 mm thickness). This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.</p>
<i>Body protection:</i>	<p>Wear suitable protective clothing.</p>

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<i>Other skin protection:</i>	 <p>Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.</p>
Environmental exposure controls:	
	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Physical state	Transparent viscous liquid
b) Colour	Colourless
c) Odour	Acrylate odour
d) Melting point/freezing point	Not available.
e) Initial boiling point and boiling range	Not available.
f) Flammability	Not available.
g) Lower and upper explosion limit	Not available.
h) Flash point	>100 °C
i) Auto-ignition temperature	Not available.
j) Decomposition temperature	Not available.
k) pH	Not available.
l) Kinematic viscosity	Not available.
m) Solubility (-ies)	Insoluble in water. Soluble in solvent.
n) Partition coefficient n-octanol/water (log value)	Not available.
o) Vapour pressure	Not available.
p) Density and/or relative density	Not available.
q) Relative vapour density	Not available.
r) Particle characteristics	Not available.

9.2. Other information

9.2.1. Information with regard to physical hazard classes

	Not available
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9.2.2. Other safety characteristics

Impurity	Not available
Explosive properties	Not available.
Oxidising properties	Not available

SECTION 10: Stability and reactivity

10.1. Reactivity

	No specific test data related to reactivity available for this product or its ingredients.
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10.2. Chemical stability

	Stable under recommended storage conditions.
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10.3. Possibility of hazardous reactions

	Under normal conditions of storage and use, hazardous reactions will not occur. Polymerization is possible when exposed to white light, ultraviolet light or heat.
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10.4. Conditions to avoid	
	Sun-Light, un-clean conditions to avoid during storage.
10.5. Incompatible materials	
	Strong alkalis, metals, free radical initiators.
10.6. Hazardous decomposition products	
	Fumes produced when heated to decomposition may include: Toxic carbon monoxide, carbon dioxide, nitrogen oxides, sulphur oxides.

SECTION 11: Toxicological information

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

a) Acute toxicity

Data on the product or its components:

Mixture/ Ingredient name	Result	Species	Dose	Exposure
7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate [DI-HEMA TRIMETHYLHEXYL DICARBAMATE]	LD ₅₀ (Oral)	Rat	> 5 000 mg/kg bw	-
	LD ₀ (Dermal)	Rat	> 2 000 mg/kg bw	-
2-Hydroxyethyl methacrylate [HEMA]	LD ₅₀ Oral	Rat	5 564 mg/kg bw	-
	LD ₅₀ Dermal	Rabbit	> 5 000 mg/kg bw	-
α-d-Glucopyranoside, β-d-fructofuranosyl, benzoate [SUCROSE BENZOATE]	LD ₅₀ Oral	Rat	> 2 000 mg/kg bw	-
	LC ₅₀ Inhalation	Rat	12.2 mg/L air	4 h
	LD ₅₀ Dermal	Rabbit	> 2 000 mg/kg bw	-
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide [TRIMETHYLBENZOYL DIPHENYLPHOSPHINE OXIDE]	LD ₅₀ (Oral)	Rat	> 5 000 mg/kg bw	-
	LD ₅₀ Dermal	Rat	> 2 000 mg/kg bw	-

Conclusion/Summary: Based on available data, classification criteria not met.

b) Serious eye damage/irritation

Data on the product or its components:

Mixture/ Ingredient name	Effect				
2-Hydroxyethyl methacrylate [HYDROXYETHYL METHACRYLATE]	Category 2B (mildly irritating to eyes) based on GHS criteria. Species: Rabbit (Strain: New Zealand White). Amount applied (volume): 0.1 ml. Observation period (in vivo): 24, 48, 72 h, 4, 5, 7 days Guideline: Appraisal of the safety of Chemicals in foods, drugs and cosmetics by staff of the Division of Pharmacology, FDA acc. to Draize.				
	Irritation parameter	Time point	Score	Max score	Reversibility
	Cornea opacity score	24/48/72 h	1-2	4	Fully reversible within: 7 days
	Iris score	24/48/72 h	0.6-1	2	Fully reversible within: 7 days
	Conjunctivae score	24/48/72 h	1.3-3	3	Fully reversible within: 7 days
	Chemosis score	24/48/72 h	1-2.3	4	Fully reversible within: 7 days

Conclusion/Summary: According to classification method described in CLP regulation, this product is classified as mixture that causes serious eye irritation - Eye Irrit. 2, H319.

c) Skin corrosion/irritation

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Data on the product or its components:	
Mixture/ Ingredient name	Effect
2-Hydroxyethyl methacrylate [HEMA]	Slightly irritating. Species: Rabbit. Amount / concentration applied: 0.5 ml Duration of treatment / exposure: 24 hour(s) Primary irritation score: 1.3 (24 hours) Draize score (abraded skin)
Conclusion/Summary:	According to classification method described in CLP regulation, this product is classified as irritating to the skin - Skin Irrit. 2, H315.
d) Respiratory or skin sensitisation	
Data on the product or its components:	
Mixture/ Ingredient name	Effect
7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate [DI-HEMA TRIMETHYLHEXYL DICARBAMATE]	Category 1B (indication of skin sensitising potential) based on GHS criteria. Guideline: OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) Type of study: mouse local lymph node assay (LLNA) Species: Mouse (Strain: CBA/CaOlaHsd) EC3: 36.9 SI: 10%: 1.58 25%: 1.7 50%: 4.44
2-Hydroxyethyl methacrylate [HEMA]	Sensitising. Guideline: Magnusson and Kligman (1970) Type of study: Guinea pig maximisation test. Species: Guinea pig (Strain: Ssc:AL).
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide [TRIMETHYLBENZOYL DIPHENYLPHOSPHINE OXIDE]	Category 1B (indication of skin sensitising potential). Guideline: OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) Type of study: mouse local lymph node assay (LLNA) Species: Mouse (Strain: CBA) EC3: 792.1 SI: 10%: 2.22 25%: 2.96 50%: 3.45
Conclusion/Summary:	According to classification method described in CLP regulation, this product is classified as sensitising to the skin - Skin Sens. 1B, H317.
e) Germ cell mutagenicity	
Data on the product or its components:	
	No data on adverse effects on humans or animals are available.
Conclusion/Summary:	Based on available data, classification criteria not met.
f) Carcinogenicity	
Data on the product or its components:	
	No data on adverse effects on humans or animals are available.
Conclusion/Summary:	Based on available data, classification criteria not met.
g) Reproductive toxicity	

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Data on the product or its components:	
Mixture/ Ingredient name	Effect
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide [TRIMETHYLBENZOYL DIPHENYLPHOSPHINE OXIDE]	<p><u>Toxicity to reproduction:</u> <i>Species:</i> Rat (Strain: Wistar) <i>Route of administration:</i> oral: gavage <i>Parental NOAEL:</i> 200 mg/kg (Based on clinical signs and reduced body weight gain (males).) <i>Reproduction NOAEL:</i> 60 mg/kg (Based on adverse microscopic findings in the male reproductive organs at 200 and 600 mg/kg.) <i>Developmental NOAEL:</i> 200 mg/kg <u>Developmental toxicity / teratogenicity:</u> <i>Species:</i> Rat (Strain: Wistar) <i>Route of administration:</i> oral: gavage <i>Effect level (maternal toxicity):</i> 150 mg/kg bw/day (actual dose received) <i>Effect levels (fetuses) – NOAEL:</i> 150 mg/kg bw/day (actual dose received) [skeletal malformations (forelimb; hindlimb)]</p>
Conclusion/Summary:	According to classification method described in CLP regulation, this product is classified as a product that may damage male fertility (testes atrophy) and is suspected of damaging the unborn child (bent limb bones) - Repr. 1B, H360Fd.
h) Specific target organ toxicity - Single exposure	
Data on the product or its components:	
	No data on adverse effects on humans or animals are available.
Conclusion/Summary:	Based on available data, classification criteria not met.
j) Specific target organ toxicity - Repeated exposure	
Data on the product or its components:	
Mixture/ Ingredient name	Effect
α-d-Glucopyranoside, β-d-fructofuranosyl, benzoate [SUCROSE BENZOATE]	<p>Hazard category: Specific target organ toxicity — Repeated exposure, Hazard Category 2. Hazard statement: May cause damage to organs through prolonged or repeated exposure. Affected organs: lungs. Route of exposure: inhalation.</p>
Conclusion/Summary:	According to classification method described in CLP regulation, this product is classified as having hazard of possibly causing damage to organs through prolonged or repeated exposure - STOT RE 2, H373.
i) Aspiration hazard	
Data on the product or its components:	
	No data on adverse effects on humans or animals are available.
Conclusion/Summary:	Based on available data, classification criteria not met.
Potential acute health effects	
Eye contact:	May causes serious eye irritation.
Inhalation:	Harmful if inhaled - may cause damage to lungs if inhaled.
Skin contact:	Causes skin sensitisation and skin irritation.
Ingestion:	May be harmful if swallowed with long lasting effects.

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Symptoms related to the physical, chemical and toxicological characteristics	
Eye contact:	Conjunctivitis, lacrimation, redness, irritation or pain, reversible cornea damage and swelling of eyes.
Inhalation:	Difficulty to breath, nausea, fatigue, cough, unconsciousness.
Skin contact:	Redness, inflammation, rash, urticaria, pain or irritation and dermatitis.
Ingestion:	Gastrointestinal symptoms, such as nausea, vomiting, abdominal pain or irritation, and diarrhoea could develop. May affect male reproductive system (atrophy of the testes). May cause infertility.
Delayed and immediate effects and also chronic effects from short and long term exposure	
Short term exposure:	
Potential immediate effects:	Not available.
Potential delayed effects:	Not available.
Long term exposure:	
Potential immediate effects:	Not available.
Potential delayed effects:	Not available.
11.2. Information on other hazards	
Endocrine disrupting properties	
Based on available data the mixture does not contain ingredients considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration of 0.1% or more.	
Other information	
No additional information is available.	

SECTION 12: Ecological information

12.1. Toxicity				
Aquatic toxicity				
Data on the product or its components:				
Mixture/ Ingredient name	Species	Exposure	Dose	Effect conc.
7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate [DI-HEMA TRIMETHYLHEXYL DICARBAMATE]	Fish - Danio rerio	96 h	LC ₅₀	10.1 mg/L
	Crustaceans - Daphnia magna	48 h	EC ₅₀	> 1.2 mg/L
	Algae - Desmodesmus subspicatus	72 h	EC ₅₀	> 0.68 mg/L
	Microorganisms - Activated sludge	14 d	NOEC	>= 36.1 mg/L
Conclusion/Summary:	According to classification method described in CLP regulation, this product is classified as toxic to aquatic life with long lasting effects (Aquatic Chronic 2, H411).			
12.2. Persistence and degradability				
Data on the product or its components:				
Mixture/ Ingredient name	CAS no.	Degradability	Test method/ Guideline	
7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate [DI-HEMA TRIMETHYLHEXYL DICARBAMATE]	72869-86-4	Not readily biodegradable. Degradation (CO ₂ evolution), 28 d: 22%.	OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test)/ EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test)	
12.3. Bioaccumulative potential				
Data on the product or its components:				





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	No data on adverse effects aquatic organisms are available.
12.4. Mobility in soil	
Data on the product or its components:	
Mixture/ Ingredient name	Effect
7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate [DI-HEMA TRIMETHYLHEXYL DICARBAMATE]	The substance has a moderate potential to adsorb to organic soil and sediment particles. Koc at 20 °C: 288.7 L/kg log Koc: 2.46 dimensionless
12.5. Results of PBT and vPvB assessment	
	Regarding all available data on biotic and abiotic degradation, bioaccumulation and toxicity it can be stated that the substance does not fulfil the PBT criteria (not PBT) and not the vPvB criteria (not vPvB).
12.6. Endocrine disrupting properties	
Data on the product or its components:	
	No data on adverse effects aquatic organisms are available.
Conclusion/Summary:	Based on available data the mixture does not contain ingredients considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration of 0.1% or more.
12.7. Other adverse effects	
	No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
Product:	
Methods of disposal:	The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste:	Within the present knowledge of the supplier, this product IS regarded as hazardous waste, as defined by Directive 2008/98/EC and EU regulation 1357/2014.
European waste catalogue (EWC):	20 01 27* paint, inks, adhesives and resins containing dangerous substances Note: Always check the given waste codes according to the actual conditions of manufacturing, formulation or use.
Packaging:	
Methods of disposal:	The generation of waste should be avoided or minimised wherever possible.
Special precautions:	This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

This preparation is classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).				
	ADR	RID	IMDG	IATA
14.1. UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2. UN proper shipping name	Environmentally Hazardous Substance Liquid, N.O.S. (7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate)			
14.3. Transport hazard class(es)	9 	9 	9 	9 
14.4. Packing group	III	III	III	III
14.5. Environmental hazards	YES	YES	Marine pollutant	YES
14.6. Special precautions for user	<u>Classification code:</u> M6 <u>Special provisions:</u> 274; 335; 375; 601 <u>Limited quantity:</u> 5 L <u>Excepted quantity:</u> E1 <u>Packaging:</u> Packaging instructions: P001, IBC03, LP01, R001 <u>Special packaging provisions:</u> PP1 <u>Mixed packaging provisions:</u> MP19 <u>Portable tanks and bulk containers:</u> Instructions: T4 <u>Special provisions:</u> TP1; TP29 <u>ADR tank:</u> Tank code: LGBV <u>Transport category:</u> 3 <u>Tunnel restriction code:</u> (-) <u>Vehicle for tank carriage:</u> AT <u>Special provisions for carriage:</u> Packages: V12	<u>Classification code:</u> M6 <u>Special provisions:</u> 274; 335; 375; 601 <u>Limited quantity:</u> 5 L <u>Excepted quantity:</u> E1 <u>Packaging:</u> Packaging instructions: P001, IBC03, LP01, R001 <u>Special packaging provisions:</u> PP1 <u>Mixed packaging provisions:</u> MP19 <u>Portable tanks and bulk containers:</u> Instructions: T4 <u>Special provisions:</u> TP1; TP29 <u>RID tank:</u> Tank code: LGBV <u>Transport category:</u> 3 <u>Special provisions for carriage:</u> Packages: W12 <u>Loading, unloading and handling:</u> CW13; CW31 <u>Colis express (express parcels):</u> CE8	<u>Special provisions:</u> 274, 909, 944 <u>Limited quantity:</u> 5 L <u>Packaging:</u> Instructions: P001, LP01 <u>IBC:</u> Instructions: IBC03 <u>Portable tanks and bulk containers:</u> IMO Tank instructions: T1 <u>UN Tank instructions:</u> T4 <u>Provisions:</u> TP2; TP29 <u>EmS code:</u> F-A, S-F <u>Stowage and segregation:</u> Category A. <u>Properties and observations:</u> -	<u>Passenger Aircraft (PAX):</u> IATA Limited quantities packaging instructions: Y964 <u>IATA Max Limited Quantities per package:</u> 30 L <u>IATA Packaging instructions:</u> 964 <u>Cargo Aircraft (CAO):</u> Packaging instructions: 964 <u>Max Limited Quantities per package:</u> 30 L <u>IATA Special provisions:</u> A97, A158, A197, A215

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	<p><i>Loading, unloading and handling:</i> CV13</p> <p><i>Hazard identification:</i> 90</p>	<p><i>Hazard identification:</i> 90</p>		
14.7. Maritime transport in bulk according to IMO instruments	Not applicable.			

SECTION 15: Regulatory information

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

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

ADR - the European Agreement concerning the International Carriage of Dangerous Goods by Road, concluded at Geneva on 30 September 1957, as amended.

RID - the Regulations concerning the International Carriage of Dangerous Goods by Rail, appearing as Appendix C to the Convention concerning International Carriage by Rail (COTIF) concluded at Vilnius on 3 June 1999, as amended.

ADN - the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways concluded at Geneva on 26 May 2000, as amended.

IMDG Code - International Maritime Dangerous Goods Code.

IATA/ICAO: ICAO - International Civil Aviation Organization. IATA - International Air Transport Association.

MARPOL 73/78 - International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance).

Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives Text with EEA relevance.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH):

Annex XIV - List of substances subject to authorization:

Substances of very high concern: Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:

Not applicable.

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms:

CLP: Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008].

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

RID: International Rule for Transport of Dangerous Substances by Railway.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

CAS: Chemical Abstracts Service.

EINECS: European Inventory of Existing Commercial Chemical Substances.

LC50: Median lethal concentration.

LD50: Median lethal dose.

REACH: Registration, Evaluation and Authorisation of Chemicals.

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	<p>PBT: Persistent, bio-accumulative and toxic. vPvB: Very persistent, very bio-accumulative. bw: Body weight.</p>
Full text of classifications and H statements [CLP/ GHS]:	
	<p>Skin Irrit. 2, Skin corrosion/ irritation, Hazard Category 2; H315 Causes skin irritation. Skin Sens. 1B, 1, Sensitisation — Skin, hazard category 1, 1B; H317 May cause an allergic skin reaction. Eye Irrit. 2, Serious eye damage/eye irritation, Hazard Category 2; H319 Causes serious eye irritation. Repr. 1B, Reproductive toxicity, Hazard Category 1B; H360Fd May damage fertility. Suspected of damaging the unborn child. STOT RE 2, Specific target organ toxicity — Repeated exposure, Hazard Category 2; H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>. Aquatic Chronic 2 - Hazardous to the aquatic environment — Chronic Hazard, Category 2; H411 Toxic to aquatic life with long lasting effects.</p>
Classification system:	
	<p>Classification for health effects: conventional (calculation) method is used or generic/ specific concentration limits: Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Irrit. 2, H319 Repr. 1B, H360Fd STOT RE 2, H373 Classification for physico-chemical effects: Not applicable. Classification for environmental effects: conventional (calculation) method is used. Aquatic Chronic 2, H411</p>
Training advice:	
	<p>In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS.</p>
Used literature:	
	<p>European Chemical Agency's homepage (http://echa.europa.eu/). Safety data sheets of individual components.</p>
DISCLAIMER OF LIABILITY:	
	<p>The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or method of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS/SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS/SDS information may not be applicable.</p>

END OF SAFETY DATA SHEET