

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Version number 1

Revision: 24.03.2021

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

1.1 Product identifier

Trade name: **Akelux Opaqing Agent**

Article number: 62070

UFI: 1265-P0MS-W00R-S2P5

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

No further relevant information available

Application of the substance / the mixture

Lacquer
Adhesives

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
Lechstrasse 28
D 90451 Nürnberg

Tel. +49(0)911-642960

Fax. +49(0)911-644456

e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.
+44 (171) 635 91 91
National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS07 GHS09

Signal word

Warning

Hazard-determining components of labelling:

7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazaheptadecane-1,16-diyl bismethacrylate

Hazard statements

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

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.

P273 Avoid release to the environment.

P280 Wear protective gloves.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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

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- Additional information: Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
- **2.3 Other hazards**
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures**

- Description: Mixture: consisting of the following components.
water
water

Dangerous components:

CAS: 72869-86-4 EINECS: 276-957-5	7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate Aquatic Chronic 2, H411 Skin Sens. 1, H317	50-100%
CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-xxxx	titanium dioxide Carc. 2, H351	1-5%

- Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- General information: Take affected persons out into the fresh air. Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: If skin irritation continues, consult a doctor. Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
A person vomiting while laying on their back should be turned onto their side.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions
Headache
Dizziness
Nausea

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- For safety reasons unsuitable extinguishing agents: Water with full jet

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· **5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

Wear fully protective suit.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **6.4 Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Keep receptacles tightly sealed.

Use only in well ventilated areas.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about fire - and explosion protection:**

No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

Prevent any seepage into the ground.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.

· **Further information about storage conditions:**

Protect from frost.

Protect from heat and direct sunlight.

· **Storage class:**

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· **7.3 Specific end use(s)**

No further relevant information available.

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SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

· Additional information about design of technical facilities:

No further data; see item 7.

· Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs**72869-86-4 7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate**

Oral	DNEL (Langzeit-wiederholt)	0.3 mg/kg bw/day (ARB)
Dermal	DNEL (Langzeit-wiederholt)	0.7 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	0.6 mg/m ³ Air (ARB)

13463-67-7 titanium dioxide

Oral	DNEL (Langzeit-wiederholt)	700 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	10 mg/m ³ Air (ARB)

· PNECs**72869-86-4 7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate**

PNEC (wässrig)	3.61 mg/l (KA)
	0.001 mg/l (MW)
	0.01 mg/l (SW)
PNEC (fest)	0.46 mg/kg Trockengew (MWS)
	4.56 mg/kg Trockengew (SWS)

13463-67-7 titanium dioxide

PNEC (wässrig)	100 mg/l (KA)
	1 mg/l (MW)
	0.127 mg/l (SW)
PNEC (fest)	100 mg/kg Trockengew (BO)
	100 mg/kg Trockengew (MWS)
	1,000 mg/kg Trockengew (SWS)

· Additional information:

The lists valid during the making were used as basis.

8.2 Exposure controls· Personal protective equipment:

· General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.
Use skin protection cream for skin protection.
Clean skin thoroughly immediately after handling the product.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.
Filter A/P2

· Protection of hands:

Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
Skin protection agent recommendation for preventive skin shelter without use of protective gloves:
STOKO EMULSION (<http://www.stoko.com>)
ARRETEL (<http://www.stoko.com>)
Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
STOKO EMULSION (<http://www.stoko.com>)
Skin protection recommendation for skin cleaning after product handling:

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Kresto Classic (<http://debstoko.com>)SOLOPOL (<http://www.stoko.com>)

Skin protection agent recommendation for skin aftercare:

STOKO VITAN (<http://www.stoko.com>)

The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).

**Protective gloves**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove materialValue for the permeation: Level \leq 480 min

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:

Butoject (KCL, Art_No. 897, 898)

Butyl rubber, BR

· As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR

Camatril (KCL, 730, 731, 732, 733)

Chloroprene rubber, CR

Camapren (KCL, Art_No. 720, 722, 726)

· Not suitable are gloves made of the following materials:

Leather gloves

Strong material gloves

Nitrile rubber, NBR

· Eye protection:

Goggles recommended during refilling

· Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties**· 9.1 Information on basic physical and chemical properties****· General Information****· Appearance:**Form:

Pasty

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· <u>Colour:</u>	White
· <u>Odour:</u>	Specific type
· <u>Odour threshold:</u>	Not determined.
· <u>pH-value:</u>	Not applicable
· <u>Change in condition</u>	
<u>Melting point/freezing point:</u>	Undetermined.
<u>Initial boiling point and boiling range:</u>	Undetermined.
· <u>Flash point:</u>	>100 °C
· <u>Flammability (solid, gas):</u>	Not applicable.
· <u>Decomposition temperature:</u>	Not determined.
· <u>Auto-ignition temperature:</u>	Product is not selfigniting.
· <u>Explosive properties:</u>	Product does not present an explosion hazard.
· <u>Explosion limits:</u>	
<u>Lower:</u>	Not determined.
<u>Upper:</u>	Not determined.
· <u>Vapour pressure:</u>	Not determined.
· <u>Density:</u>	Not determined.
· <u>Relative density</u>	Not determined.
· <u>Vapour density</u>	Not determined.
· <u>Evaporation rate</u>	Not determined.
· <u>Solubility in / Miscibility with water:</u>	Not miscible or difficult to mix.
· <u>Partition coefficient: n-octanol/water:</u>	Not determined.
· <u>Viscosity:</u>	
<u>Dynamic:</u>	Not determined.
<u>Kinematic at 20 °C:</u>	0 s (DIN 53211/4)
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

72869-86-4 7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate

Oral LD50 >5,000 mg/kg (rat)

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Dermal	LD50	>2,000 mg/kg (rat)
13463-67-7 titanium dioxide		
Oral	LD50	>5,010 mg/kg (rat)
	NOAEL	24,000 mg/kg (rat)
Dermal	LD50	>10,010 mg/kg (rbt)
Inhalative	NOAEL	10 mg/m ³ (rat)
	LC50/48h	>100 mg/l (daphnia magna)

- Primary irritant effect: Do not get in eyes, on skin, or on clothing.
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation May cause an allergic skin reaction.
- Additional toxicological information:
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information**12.1 Toxicity**

- Aquatic toxicity:

72869-86-4 7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate

EC50/48h >1.2 mg/l (daphnia magna)

EC50/72h >0.68 mg/l (green alge)

LC50/96h 10.1 mg/l (piscis)

13463-67-7 titanium dioxide

EC50 >1,000 mg/l (bacteria)

EC50/48h >100 mg/l (daphnia magna)

EC50/72h 16 mg/l (Pseudokirchneriella subcapitata)

LC50/96h >100 mg/l (Oncorhynchus mykiss)

>1,000 mg/l (pimephales promelas)

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Ecotoxicological effects:Remark:

Toxic for fish

Additional ecological information:General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

12.5 Results of PBT and vPvB assessment· PBT: Not applicable.· vPvB: Not applicable.· **12.6 Other adverse effects** No further relevant information available.

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SECTION 13: Disposal considerations**· 13.1 Waste treatment methods****· Recommendation**

Must be specially treated adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packaging:**· Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

· Recommended cleansing agents:Alcohol
acetone**SECTION 14: Transport information****· 14.1 UN-Number****· ADR, IMDG, IATA**

UN3082

· 14.2 UN proper shipping name**· ADR**3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate),
MARINE POLLUTANT
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-

dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate)

· IMDG**· IATA****· 14.3 Transport hazard class(es)****· ADR****· Class**

9 (M6) Miscellaneous dangerous substances and articles.

· Label

9

· IMDG, IATA**· Class**

9 Miscellaneous dangerous substances and articles.

· Label

9

· 14.4 Packing group**· ADR, IMDG, IATA**

III

· 14.5 Environmental hazards:**· Marine pollutant:**

Symbol (fish and tree)

· Special marking (ADR):

Symbol (fish and tree)

· Special marking (IATA):

Symbol (fish and tree)

· 14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

· Hazard identification number (Kemler code):

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· <u>EMS Number:</u>	F-A,S-F
· <u>Stowage Category</u>	A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· <u>Transport/Additional information:</u>	Not dangerous according to the above specifications.
· <u>ADR</u>	
· <u>Excepted quantities (EQ)</u>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <u>IMDG</u>	
· <u>Limited quantities (LQ)</u>	5L
· <u>Excepted quantities (EQ)</u>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <u>UN "Model Regulation":</u>	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (7,7,9(OR7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE), 9, III

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

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category E2 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- National regulations:
- Information about limitation of use: Employment restrictions concerning juveniles must be observed.
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- VOC EU 0.0 g/l
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H411 Toxic to aquatic life with long lasting effects.
- Recommended restriction of use refer to Technical Data Sheet (TDS)
- Department issuing SDS: Laboratory
- Contact: Elke Hake
Fon ++49 (0)911 64296-59
@mail E.Hake@akemi.de

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· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
REACH directive 1907/2006/EC

· Sources

- * Data compared to the previous version altered.

Adaptation in accordance with REACH directive 1907/2006/EC

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