

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/07/2021

Reviewed on 06/07/2021

1 Identification

· Product identifier

· Trade name: **PLATINUM 4.0 P+ Clear Liquid**

· Article number: 12323, 12324, 12326

· Application of the substance / the mixture Adhesives

· 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

· Information department: Laboratory

· 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.

2 Hazard(s) identification

· Classification of the substance or mixture

Flam. Liq. 3 H226 Flammable liquid and vapor.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

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

Carc. 1B H350 May cause cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS02 GHS07 GHS08

· Signal word

Danger

· Hazard-determining components of labeling:

styrene
2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diy]bis[3-mercaptopropionate]
methyl methacrylate

· Hazard statements

H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H335 May cause respiratory irritation.
H372 Causes damage to the hearing organs through prolonged or repeated exposure.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260 Do not breathe vapours.

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P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a poison center/doctor if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:· **NFPA ratings (scale 0 - 4)**

Health = 2
Fire = 3
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = *2
Fire = 3
Reactivity = 0

Other hazards

During processing and product hardening the network generator is released as fume. Consequently, take care for adequate air conditioning and for fume exhaustion on request.

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.· **vPvB:** Not applicable.**3 Composition/information on ingredients****Chemical characterization: Mixtures**· **Description:** Mixture: consisting of the following components.**Dangerous components:**

CAS: 100-42-5 EINECS: 202-851-5 Index number: 601-026-00-0	styrene Flam. Liq. 3, H226 Carc. 1B, H350; Repr. 2, H361; STOT RE 1, H372; Asp. Tox. 1, H304 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	25-50%
CAS: 33007-83-9 EINECS: 251-336-1	2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diylbis[3-mercaptopropionate] Acute Tox. 4, H302; Skin Sens. 1, H317	1-5%
CAS: 80-62-6 EINECS: 201-297-1 Index number: 607-035-00-6	methyl methacrylate Flam. Liq. 2, H225 Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	1-5%
CAS: 38668-48-3 EINECS: 254-075-1	1,1'-(p-tolylimino)dipropan-2-ol Acute Tox. 2, H300; Acute Tox. 3, H331 Eye Dam. 1, H318	<1%
CAS: 1843-05-6 EINECS: 217-421-2	octabenzene Skin Sens. 1B, H317	<1%
CAS: 1187441-10-6 EC number: 810-703-1	2-Propenoic acid, 2-methyl-, 2-hydroxyethylester, reaction products with phosphorus oxide Eye Dam. 1, H318 Skin Sens. 1B, H317	<1%

· **Additional information:**

For the wording of the listed hazard phrases refer to section 16.

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* 4 First-aid measures

· Description of first aid measures

- General information: Take affected persons out into the fresh air.
Position and transport stably on side.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Consult doctor if symptoms persist.
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: If symptoms persist consult doctor.
- Information for doctor: With reference to section 2 the formulation contains styrene in the indicated mass concentration range. Styrene fumes will preferably be incorporated by inhalation via respiratory tract, skin resorption is currently considered as an inferior way of incorporation. In case of inhalation styrene is absorbed in a 60-90% range. Distribution in organism occurs rapidly, the maximum blood concentration can be analyzed after one hour after incorporation. Styrene exposition affects skin, mucous membranes, and central nervous system (CNS).
Acute damages / risks to health:
In case of styrene poisoning mainly damages to and interactions with central nervous system (CNS) arise. In concentration ranges above 200 ml/m³ symptoms such as fatigue, nausea, imbalance and prolonged response times are observed.
Chronical health risks:
Effects at central and peripheral nervous system and respiratory tract are evident in literature.
Main health risks are:
 - prolonged response times
 - reduced cognitive performance, partial amnesia
 - retardation of nervous impulse transition speed
 - disturbances of pulmonary function
- Most important symptoms and effects, both acute and delayed Headache
Dizziness
Dizziness
Breathing difficulty
Profuse sweating
Nausea
- Danger Danger of impaired breathing.
Skin contact with polyester and epoxy resin solutions as ingredient of the product should be avoided due to risks of skin irritations or allergic skin appearances. If occasional hand contact can not be avoided, protection gloves, proper protection ointments and protective agents generating a protective layer on the skin were applied.
- Indication of any immediate medical attention and special treatment needed If swallowed, gastric irrigation with added, activated carbon.
If swallowed or in case of vomiting, danger of entering the lungs.

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5 Fire-fighting measures

- **Extinguishing media**
- Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- **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)
Nitrogen oxides (NO_x)
In certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen cyanide (HCN)
- **Advice for firefighters**
- Protective equipment: Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
Mount respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Keep away from ignition sources
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
- **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.
- **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.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:

100-42-5	styrene	20 ppm
80-62-6	methyl methacrylate	17 ppm
141-78-6	ethyl acetate	1,200 ppm
150-76-5	mequinol	15 mg/m ³

· PAC-2:

100-42-5	styrene	130 ppm
80-62-6	methyl methacrylate	120 ppm
141-78-6	ethyl acetate	1,700 ppm

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150-76-5	mequinol	49 mg/m ³
· PAC-3:		
100-42-5	styrene	1100* ppm
80-62-6	methyl methacrylate	570 ppm
141-78-6	ethyl acetate	10000** ppm
150-76-5	mequinol	320 mg/m ³

* 7 Handling and storage

· Handling:

- Precautions for safe handling
 - Keep receptacles tightly sealed.
 - Store in cool, dry place in tightly closed receptacles.
 - Keep away from heat and direct sunlight.
 - Use only in well ventilated areas.
 - Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
 - Ensure good ventilation/exhaustion at the workplace.

· Information about protection against explosions and fires:

- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.

· **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 oxidizing agents.
- Store away from foodstuffs.

· Further information about storage conditions:

- Store receptacle in a well ventilated area.
- Protect from frost.
- Keep receptacle tightly sealed.

· Storage class:

3

· **Specific end use(s)**

No further relevant information available.

* 8 Exposure controls/personal protection

· **Additional information about design of technical systems:**

No further data; see item 7.

· **Control parameters**

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

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

100-42-5 styrene

PEL	Long-term value: 100 ppm Ceiling limit value: 200; 600* ppm *5-min peak in any 3 hrs
REL	Short-term value: 425 mg/m ³ , 100 ppm Long-term value: 215 mg/m ³ , 50 ppm
TLV	Short-term value: 20 ppm Long-term value: 10 ppm BEI, OTO

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80-62-6 methyl methacrylate

PEL	Long-term value: 410 mg/m ³ , 100 ppm
REL	Long-term value: 410 mg/m ³ , 100 ppm
TLV	Short-term value: 410 mg/m ³ , 100 ppm Long-term value: 205 mg/m ³ , 50 ppm
DSEN	

· Ingredients with biological limit values:**100-42-5 styrene**

BEI	400 mg/g creatinine Medium: urine Time: end of shift Parameter: Mandelic acid plus phenylglyoxylic acid (nonspecific)
	0.2 mg/L Medium: venous blood Time: end of shift Parameter: Styrene (semi-quantitative)

· Additional information: The lists that were valid during the creation were used as basis.· **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.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

· Breathing equipment:

Short term filter device:
Filter A/P2
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:

After use of gloves apply skin-cleaning agents and skin cosmetics.
Preventive skin protection by use of skin-protecting agents is recommended.

**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
Skin protection agent recommendation for preventive skin shelter without use of protective gloves
Travabon Special PURE (<http://www.debstoko.com>)
Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
Stokoderm Protect PURE (<http://www.debstoko.com>)
Skin protection recommendation for skin cleaning after product handling:
Kresto Classic (<http://www.debstoko.com>)
Skin protection agent recommendation for skin aftercare:

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Stokolan Light PURE (<http://www.debstoko.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>).

· Material of gloves

Fluorocarbon rubber (Viton)

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 6, 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:Fluorocarbon rubber (Viton)
Vitoject (KCL, Art_No. 890)· As protection from splashes gloves made of the following materials are suitable:Fluorocarbon rubber (Viton)
Vitoject (KCL, Art_No. 890)
Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)
Nitrile rubber, NBR
Dermatril (KCL, Art_No. 740, 741, 742)
Camatril (KCL, Art_No. 730, 731, 732, 733)· Not suitable are gloves made of the following materials:Natural rubber, NR
Chloroprene rubber, CR
Leather gloves
Strong gloves· Eye protection:

Tightly sealed goggles

· Body protection:

Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information· Appearance:

Form:

Pasty

Color:

Opaque

· Odor:

Specific type

· Odor threshold:

Not determined.

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· <u>pH-value:</u>	Not applicable
· <u>Change in condition</u>	
<u>Melting point/Melting range:</u>	Undetermined.
<u>Boiling point/Boiling range:</u>	145.2 °C (293.4 °F)
· <u>Flash point:</u>	32 °C (89.6 °F)
· <u>Flammability (solid, gaseous):</u>	Not applicable.
· <u>Ignition temperature:</u>	480 °C (896 °F)
· <u>Decomposition temperature:</u>	Not determined.
· <u>Auto igniting:</u>	Product is not selfigniting.
· <u>Danger of explosion:</u>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <u>Explosion limits:</u>	
<u>Lower:</u>	1.2 Vol %
<u>Upper:</u>	8.9 Vol %
· <u>Vapor pressure at 20 °C (68 °F):</u>	6 hPa (4.5 mm Hg)
· <u>Density at 20 °C (68 °F):</u>	1.1 g/cm ³ (9.18 lbs/gal)
· <u>Specific gravity at 20 °C (68 °F):</u>	1.1 g/cm ³ (9.18 lbs/gal)
· <u>Relative density</u>	Not determined.
· <u>Vapor density</u>	Not determined.
· <u>Evaporation rate</u>	Not determined.
· <u>Solubility in / Miscibility with</u>	
<u>Water:</u>	Not miscible or difficult to mix.
· <u>Partition coefficient (n-octanol/water):</u>	Not determined.
· <u>Viscosity:</u>	
<u>Dynamic at 20 °C (68 °F):</u>	1,100 mPas
<u>Kinematic:</u>	Not determined.
· <u>Solvent content:</u>	
<u>Organic solvents:</u>	34.3 %
<u>Solids content:</u>	8.0 %
· <u>Other information</u>	No further relevant information available.

* 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
 - Exothermic polymerization.
 - Reacts with peroxides and other radical forming substances.
 - Reacts with acids.
 - Reacts with strong alkali.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
 - Carbon monoxide and carbon dioxide
 - Nitrogen oxides (NOx)

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Hydrogen cyanide (prussic acid)

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11 Toxicological information· **Information on toxicological effects**

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral	LD50	>2,219-4,615 mg/kg (rat)
Dermal	LD50	>6,091 mg/kg (rat)
Inhalative	LC50/4 h	24.3 mg/l

100-42-5 styrene

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat) (OECD-Prüfrichtlinie 402)
Inhalative	LC50/4h	9.5 mg/m ³ (mouse)
		11,800 mg/m ³ (rat)
	LC50/4 h	11.8 mg/l (rat)
	NOAEC	4.34 mg/l (rat)

33007-83-9 2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diylbis[3-mercaptopropionate]

Oral	LD50	1,000 mg/kg (rat)
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80-62-6 methyl methacrylate

Oral	LD50	7,872 mg/kg (rat) (OECD 401)
	NOAEL	2,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4h	4,632 mg/m ³ (rat)
	LC50/4 h	29.8 mg/l (rat)
	NOAEL	25 mg/m ³ (rat)

38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol

Oral	LD50	>25-<200 mg/kg (rat) (OECD 423)
Dermal	LD50	>2,000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	0.5 mg/l (ATE)

1843-05-6 octabenzene

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

1187441-10-6 2-Propenoic acid, 2-methyl-, 2-hydroxyethylester, reaction products with phosphorus oxide

Oral	LD50	>2,000 mg/kg (rat)
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· Primary irritant effect:· on the skin:

Irritant to skin and mucous membranes.

· on the eye:

Irritating effect.

· Sensitization:

No sensitizing effects known.

· Experience with humans:

After incorporation and inhalation styrene predominantly will be metabolized in the organism to mandelic and phenylglyoxylic acid and metabolites will pass through urine excretion.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

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· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

100-42-5	styrene	2A
80-62-6	methyl methacrylate	3

· NTP (National Toxicology Program)

100-42-5	styrene	R
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· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information· **Toxicity**

· Aquatic toxicity:

100-42-5 styrene

EC50/96h	6.3 mg/l (Pseudokirchneriella subcapitata)
EC50	500 mg/l (BES) (ISO Vorschrift 8192-1986 E)
	5.5 mg/l (Photobac. phosphoreum)
IC50/72h	4.9 mg/l (green alge)
	1.4 mg/l (selenastrum capricornutum)
IC5/8d	>200 mg/l (Scenedesmus quadricauda)
EC10/16h	72 mg/l (pseudomonas putida)
EC50/16h	>72 mg/l (pseudomonas putida)
EC50/8d	>200 mg/l (Scenedesmus quadricauda)
EC50/72u	>1-<10 mg/l (green alge)
EC20/0.5h	140 mg/l (BES) (OECD 209)
NOEC/21d	1.01 mg/l (daphnia magna)
EC10	0.28 mg/l (Pseudokirchneriella subcapitata) (EPA OTS 797.1050)
EC50/48h	0.56 mg/l (green alge)
	3.3-7.4 mg/l (daphnia magna)
EC50/72h	0.46-4.3 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	>1-<10 mg/l (piscis)
	19.03-33.53 mg/l (lem)
	3.24-4.99 mg/l (pimephales promelas)
	6.75-14.5 mg/l (Pimephales promelas)
	58.75-95.32 mg/l (poecilia reticulata)
LC50/72h	4.9 mg/l (green alge)

33007-83-9 2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diylbis[3-mercaptopropionate]

EC50/48h	0.71 mg/l (daphnia magna)
LC50/96h	0.153 mg/l (Oncorhynchus mykiss)

80-62-6 methyl methacrylate

EC50/96h	170 mg/l (Pseudokirchneriella subcapitata)
EC50/48h	69 mg/l (daphnia magna) (OECD 202)
EC0	100 mg/l (pseudomonas putida)
NOEC	9.4 mg/kg (Danio rerio.) (OECD 210)
NOEC	>100 mg/l (Selenastrum capricornutum)
NOEC/21d	37 mg/l (daphnia magna) (OECD 202)
EC50/72h	>110 mg/l (Selenastrum capricornutum)

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LC50/96h	153.9-341.8 mg/l (lem) >79 mg/l (Oncorhynchus mykiss) (OECD 203) 125-275 mg/l (pimephales promelas) 326.4-426.9 mg/l (poecilia reticulata)
38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol	
EC50/48h	28.8 mg/l (daphnia magna) (OECD 202)
EC20/0.5h	>1,995 mg/l (BES) (OECD 209)
EC50/72h	245 mg/l (Desmodesmus subspicatus) (OECD 201)
LC50/96h	17 mg/l (Brachydanio rerio)
1843-05-6 octabenzone	
EC50/24h	52 mg/l (daphnia magna)
IC50	>100 mg/l (BES) 52 mg/l (daphnia magna)
LC50	>100 mg/l (Brachydanio rerio)
EC50/48h	>0.0038 mg/l (daphnia magna)
EC20/3h	>100 mg/l (BES)
EC50/72h	>100 mg/l (Scenedesmus subspicatus)
LC50/96h	>100 mg/l (Brachydanio rerio) (OECD 203)
1187441-10-6 2-Propenoic acid, 2-methyl-, 2-hydroxyethylester, reaction products with phosphorus oxide	
EC50/48h	>100 mg/l (daphnia magna)
EC50/72h	165 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	>100 mg/l (Cyprinus carpio)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
Water hazard class 2 (Self-assessment): hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

* 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Must be specially treated adhering to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
- **Recommended cleansing agent:** Alcohol
acetone

* 14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN3269

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· UN proper shipping name

· DOT Polyester resin kit
 · ADR 3269 POLYESTER RESIN KIT
 · IMDG, IATA POLYESTER RESIN KIT

· Transport hazard class(es)

· DOT



· Class 3 Flammable liquids
 · Label 3

· ADR



· Class 3 (F3) Flammable liquids
 · Label 3

· IMDG, IATA



· Class 3 Flammable liquids
 · Label 3

· Packing group

· DOT, ADR, IMDG, IATA III

· Environmental hazards:

· Marine pollutant: No

· Special precautions for user

Warning: Flammable liquids
 · Hazard identification number (Kemler code): -
 · EMS Number: F-E,S-D
 · Stowage Category B

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR

· Excepted quantities (EQ) Code: E0
 Not permitted as Excepted Quantity
 · Remarks: Without hardener component: no dangerous goods < 450 l

· IMDG

· Limited quantities (LQ) 5L
 · Excepted quantities (EQ) Code: See SP340
 · Remarks: Without hardener component: no dangerous goods < 30 l

· IATA

· Remarks: Without hardener component: 3/III UN 1866 Resin Solution

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· UN "Model Regulation":	UN 3269 POLYESTER RESIN KIT, 3, III
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* 15 Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

100-42-5 styrene

80-62-6 methyl methacrylate

· TSCA (Toxic Substances Control Act):

100-42-5 styrene

ACTIVE

33007-83-9 2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diylbis[3-mercaptopropionate]

ACTIVE

80-62-6 methyl methacrylate

ACTIVE

38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol

ACTIVE

1843-05-6 octabenzene

ACTIVE

28961-43-5 propylidynetrimethanol, ethoxylated, esters with acrylic acid

ACTIVE

1187441-10-6 2-Propenoic acid, 2-methyl-, 2-hydroxyethylester, reaction products with phosphorus oxide

ACTIVE

· Hazardous Air Pollutants

100-42-5 styrene

80-62-6 methyl methacrylate

603-36-1 triphenylstibine

· California Prop.65



WARNING This product can expose you to a chemical, Styrene, which is known to the state of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

· Proposition 65

· Chemicals known to cause cancer:

100-42-5 styrene

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

80-62-6 methyl methacrylate

E, NL

· TLV (Threshold Limit Value)

100-42-5 styrene

A4

80-62-6 methyl methacrylate

A4

· MAK (German Maximum Workplace Concentration)

100-42-5 styrene

5

603-36-1 triphenylstibine

2

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

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· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms

GHS02 GHS07 GHS08

· Signal word

Danger

· Hazard-determining components of labeling:

styrene
 2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diylbis[3-mercaptopropionate]
 methyl methacrylate

H226 Flammable liquid and vapor.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H350 May cause cancer.
 H361 Suspected of damaging fertility or the unborn child.
 H335 May cause respiratory irritation.
 H372 Causes damage to the hearing organs through prolonged or repeated exposure.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P260 Do not breathe vapours.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 Call a poison center/doctor if you feel unwell.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

· Information about limitation of use: Employment restrictions concerning pregnant and lactating women must be observed.
 Employment restrictions concerning young persons must be observed.

· Water hazard class:

Water hazard class 2 (Self-assessment): hazardous for water.

· VOC USA

377.4 g/l / 3.15 lb/gal

· **Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

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.

· **Department issuing SDS:**

Laboratory

· **Contact:**

Dieter Zimmermann

· Date of preparation / last revision

06/07/2021 / 4

· 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

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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
DOT: US Department of Transportation
IATA: International Air Transport Association
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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1B: Skin sensitisation – Category 1B
Carc. 1B: Carcinogenicity – Category 1B
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Asp. Tox. 1: Aspiration hazard – Category 1

US