Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

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

· **1.1 Product identifier**
· Trade name: **Crack Bond waterclear**

· Article number: 11323, 11324
· **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 Binder

· **1.3 Details of the supplier of the safety data sheet**
· Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH Tel. +49(0)911-642960
Lechstrasse 28 Fax. +49(0)911-644456
D 90451 Nürnberg e-mail info@akemi.de

· Further information obtainable from: Laboratory
· **1.4 Emergency telephone number:** +44 (171) 635 91 91
National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER
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.

* **SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**
· Classification according to Regulation (EC) No 1272/2008


GHS02 flame

Flam. Liq. 3	H226	Flammable liquid and vapour.


GHS08 health hazard

Repr. 2	H361d	Suspected of damaging the unborn child.
STOT RE 1	H372	Causes damage to the hearing organs through prolonged or repeated exposure.


GHS07

Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
STOT SE 3	H335	May cause respiratory irritation.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

· **2.2 Label elements**
· Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 1)

· Hazard pictograms

GHS02 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labelling: styrene
maleic anhydride

· Hazard statements
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H361d Suspected of damaging the unborn child.
H335 May cause respiratory irritation.
H372 Causes damage to the hearing organs through prolonged or repeated exposure.
H412 Harmful 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 label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe vapours.
P273 Avoid release to the environment.
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 [or 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.

· **2.3 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.

*
SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**
· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 100-42-5 EINECS: 202-851-5 Index number: 601-026-00-0 Reg.nr.: 01-2119457861-32	styrene Flam. Liq. 3, H226 Repr. 2, H361d; STOT RE 1, H372; Asp. Tox. 1, H304 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 Aquatic Chronic 3, H412	25-50%

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 2)

CAS: 3164-85-0 EINECS: 221-625-7 Reg.nr.: 01-2119980714-29	Kalium-2-ethylhexanoat Repr. 2, H361d Eye Dam. 1, H318 Skin Irrit. 2, H315	<1%
CAS: 25973-55-1 EINECS: 247-384-8 Reg.nr.: 01-2119955688-17	2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol Acute Tox. 1, H330 STOT RE 2, H373 Acute Tox. 4, H312 Aquatic Chronic 4, H413	<1%
CAS: 111-46-6 EINECS: 203-872-2 Index number: 603-140-00-6 Reg.nr.: 01-2119457857-21	2,2'-oxybisethanol Acute Tox. 4, H302	<1%
CAS: 108-31-6 EINECS: 203-571-6 Index number: 607-096-00-9 Reg.nr.: 01-2119472428-31	maleic anhydride Resp. Sens. 1, H334; STOT RE 1, H372 Skin Corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Sens. 1A, H317	<1%

· SVHC

25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol

· 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: Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Take affected persons out into the fresh air.
Position and transport stably in side position.

· 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: Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing: Do not induce vomiting; call for medical help immediately.

· **4.2 Most important symptoms and effects, both acute and delayed**

Headache
Dizziness
Dizziness
Profuse sweating
Nausea

· 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.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 3)

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

· Hazards
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.

· **4.3 Indication of any immediate medical attention and special treatment needed**
If swallowed, gastric irrigation with added, activated carbon.

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.

· For safety reasons unsuitable extinguishing agents:
Water with full jet

· **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**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.

· **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.
Do not flush with water or aqueous cleansing agents

· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 4)

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

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

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Protect from heat.
Highly volatile, flammable constituents are released during processing.

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

· Storage:

· Requirements to be met by storerooms and receptacles:

Store in a cool location.
Store only in the original receptacle.
Prevent any seepage into the ground.

· Information about storage in one common storage facility:

Do not store together with acids.
Do not store together with alkalis (caustic solutions).
Store away from oxidising agents.
Store away from foodstuffs.

· Further information about storage conditions:

Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Store receptacle in a well ventilated area.

· **7.3 Specific end use(s)** No further relevant information available.

*

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

· **8.1 Control parameters**

· Ingredients with limit values that require monitoring at the workplace:	
100-42-5 styrene	
WEL	Short-term value: 1080 mg/m³, 250 ppm Long-term value: 430 mg/m³, 100 ppm
111-46-6 2,2'-oxybisethanol	
WEL	Long-term value: 101 mg/m³, 23 ppm
108-31-6 maleic anhydride	
WEL	Short-term value: 3 mg/m³ Long-term value: 1 mg/m³ Sen

· DNELs		
100-42-5 styrene		
Oral	DNEL (Langzeit-wiederholt)	2.1 mg/kg bw/day (BEV)

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 5)

Dermal	DNEL (Langzeit-wiederholt)	406 mg/kg bw/day (ARB)
		343 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	289-306 mg/m³ Air (ARB)
		174.25-182.75 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	85 mg/m³ Air (ARB)
		10.2 mg/m³ Air (BEV)
25973-55-1 2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol		
Dermal	DNEL (Langzeit-wiederholt)	0.3 mg/kg bw/day (ARB)
		0.14 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	0.7 mg/m³ Air (ARB)
		0.17 mg/m³ Air (BEV)
111-46-6 2,2'-oxybisethanol		
Dermal	DNEL (Langzeit-wiederholt)	106 mg/kg bw/day (ARB)
		53 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	60 mg/m³ Air (ARB)
		12 mg/m³ Air (BEV)
108-31-6 maleic anhydride		
Dermal	DNEL (Kurzzeit-akut)	0.04 mg/kg bw/day (ARB)
	DNEL (Langzeit-wiederholt)	0.04 mg/kg bw/day (ARB)
Inhalative	DNEL (Kurzzeit-akut)	0.8 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	0.4 mg/m³ Air (ARB)

· PNECs

100-42-5 styrene	
PNEC (wässrig)	5 mg/l (KA)
	0.014 mg/l (MW)
	0.028 mg/l (SW)
	0.04 mg/l (WAS)
PNEC (fest)	0.2 mg/kg Trockengew (BO)
	0.307 mg/kg Trockengew (MWS)
	0.614 mg/kg Trockengew (SWS)
25973-55-1 2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol	
PNEC (wässrig)	1 mg/l (KA)
	0.001 mg/l (MW)
	0.01 mg/l (SW)
PNEC (fest)	90 mg/kg Trockengew (BO)
	45.1 mg/kg Trockengew (MWS)
	451 mg/kg Trockengew (SWS)
111-46-6 2,2'-oxybisethanol	
PNEC (wässrig)	199.5 mg/l (KA)
	1 mg/l (MW)
	10 mg/l (SW)
	10 mg/l (WAS)
PNEC (fest)	1.53 mg/kg Trockengew (BO)
	2.09 mg/kg Trockengew (MWS)
	20.9 mg/kg Trockengew (SWS)

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 6)

108-31-6 maleic anhydride	
PNEC (wässrig)	44.6 mg/l (KA)
	0.00446 mg/l (MW)
	0.0446 mg/l (SW)
	0.4281 mg/l (WAS)
PNEC (fest)	0.0415 mg/kg Trockengew (BO)
	0.0334 mg/kg Trockengew (MWS)
	0.334 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:
The usual precautionary measures are to be adhered to when handling chemicals.
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.
Use skin protection cream for skin protection.
Clean skin thoroughly immediately after handling the product.

· Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Short term filter device:
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:
ARRETIL (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:
Kresto Classic (http://debstoko.com)
Skin protection agent recommendation for skin aftercare:
STOKO VITAN (http://www.stoko.com)

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
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 anylyses 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

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 7)

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.

· Penetration time of glove material: The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
Value for the permeation: Level ≤ 6, 480 min

· 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)
Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)
Nitrile rubber, NBR
Camatril (KCL, 730, 731, 732, 733)

· Not suitable are gloves made of the following materials:
Leather gloves
Strong material gloves

· Eye protection:

Tightly sealed goggles

· Body protection: Protective work clothing

*
SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· General Information	
· Appearance:	
Form:	Fluid
Colour:	According to product specification
· Odour:	Characteristic
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	145 °C
· Flash point:	31 °C
· Ignition temperature:	480 °C
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.2 Vol %
Upper:	8.9 Vol %
· Vapour pressure at 20 °C:	6 hPa
· Density at 20 °C:	1.11 g/cm³
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 8)

· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	37.7 %
Solids content:	61.8 %
· **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 according to specifications.
No decomposition if used and stored according to specifications.
· **10.3 Possibility of hazardous reactions** Exothermic polymerisation.
Reacts with peroxides and other radical forming substances.
Reacts with strong alkali.
Reacts with strong acids.
· **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
Possible in traces.

*
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:

ATE (Acute Toxicity Estimates)		
Inhalative	LC50/4 h	>27.4 mg/l (rat)

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/m3 (mouse)
	LC50/4 h	11.8 mg/l (rat)
	NOAEC	4.34 mg/l (rat)
25973-55-1 2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol		
Oral	LD50	>7,750 mg/kg (rat)
Dermal	LD50	>1,100 mg/kg (rabbit)
Inhalative	LC50/4 h	>0.4 mg/l (rat)
111-46-6 2,2'-oxybisethanol		
Oral	LD50	300-2,000 mg/kg (rat)
Dermal	LD50	11,890 mg/kg (rbt)
108-31-6 maleic anhydride		
Oral	LD50	1,090-2,620 mg/kg (rabbit)
		400-480 mg/kg (rat)

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 9)

Dermal	LD50	2,620 mg/kg (rabbit)
Inhalative	LC50/1h	>4.35 mg/l (rat)
	LC50/48h	138 mg/l (lem)

· Primary irritant effect:
· Skin corrosion/irritation — Causes skin irritation.
· Serious eye damage/irritation — Causes serious eye irritation.
· Respiratory or skin sensitisation — May cause an allergic skin reaction.
· Experience with humans: — After incorporation and inhalation styrene predominantly will be metabolized in the organism to mandelic and phenylglyoxylic acid and matabolites will pass through urine excretion.
· CMR effects (carcinogenity, 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 — Suspected of damaging the unborn child.
· STOT-single exposure — May cause respiratory irritation.
· STOT-repeated exposure — Causes damage to the hearing organs through prolonged or repeated exposure.
· Aspiration hazard — Based on available data, the classification criteria are not met.

*

SECTION 12: Ecological information

· **12.1 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)
25973-55-1 2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol	
EC50/24h	>100 mg/l (daphnia magna)
EC50/48h	>10 mg/l (daphnia magna)
NOEC	<0.1 mg/kg (Scenedesmus subspicatus)

(Contd. on page 11)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 10)

EC50/72h	>10 mg/l (Scenedesmus subspicatus)
LC50/96h	>100 mg/l (Brachydanio rerio)
111-46-6 2,2'-oxybisethanol	
NOEC	8,590 mg/kg (literature)
	15,380 mg/kg (pimephales promelas)
EC50/48h	48,900 mg/l (daphnia magna)
LC50/96h	75,200 mg/l (pimephales promelas)
108-31-6 maleic anhydride	
EC50/24h	316-330 mg/l (daphnia magna)
EC50	77 mg/l (daphnia magna)
EC10/18h	44.6 mg/l (pseudomonas putida)
EC50/48h	42.81 mg/l (daphnia magna)
ErC50/72h	74.35 mg/l (Pseudokirchneriella subcapitata) (OECD 202)
NOELR/72h	150 mg/l (Pseudokirchneriella subcapitata)
NOEC/21d	10 mg/l (daphnia magna)
EC50/72h	29 mg/l (Desmodesmus subspicatus)
	74.32 mg/l (Pseudokirchneriella subcapitata)
	>150 mg/l (Selenastrum capricornutum)
LC50/96h	75 mg/l (lepomis macrochirus)
	75 mg/l (Oncorhynchus mykiss)

· **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.
· Additional ecological information:
· General notes: Water hazard class 2 (German Regulation) (Self-assessment): 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.

*
SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue	
20 00 00	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01 00	separately collected fractions (except 15 01)
20 01 27*	paint, inks, adhesives and resins containing hazardous substances
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by hazardous substances

· Uncleaned packaging:
· Recommendation: Disposal must be made according to official regulations.

(Contd. on page 12)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 11)

· Recommended cleansing agents: Alcohol

*

SECTION 14: Transport information

· **14.1 UN-Number**	
· ADR, IMDG, IATA	UN3269
· **14.2 UN proper shipping name**	
· ADR	3269 POLYESTER RESIN KIT
· IMDG, IATA	POLYESTER RESIN KIT
· **14.3 Transport hazard class(es)**	
· ADR	

· Class	3 (FT3) Flammable liquids.
· Label	3
· IMDG, IATA	

· Class	3 Flammable liquids.
· Label	3
· **14.4 Packing group**	
· ADR, IMDG, IATA	III
· **14.5 Environmental hazards:**	
· Marine pollutant:	No
· **14.6 Special precautions for user**	Warning: Flammable liquids.
· Hazard identification number (Kemler code):	-
· EMS Number:	F-E,S-E
· Stowage Category	A
· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: See
· Transport category	3
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: See SP340
· UN "Model Regulation":	UN 3269 POLYESTER RESIN KIT, 3, III

(Contd. on page 13)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 12)

* **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: P5c FLAMMABLE LIQUIDS
· Qualifying quantity (tonnes) for the application of lower-tier requirements: 5,000 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements: 50,000 t

· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)		
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol	Sunset date: 2023-11-27

· REGULATION (EC) No 1907/2006 ANNEX XVII: Conditions of restriction: 3

· National regulations:

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

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

· Substances of very high concern (SVHC) according to REACH, Article 57	
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol

· VOC EU: 419.9 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
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H361d Suspected of damaging the unborn child.
H372 Causes damage to the hearing organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.
· Recommended restriction of use: refer to Technical Data Sheet (TDS)

· Department issuing SDS: Laboratory
· Contact: Dieter Zimmermann

(Contd. on page 14)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2020 Version number 7 Revision: 04.03.2020

Trade name: Crack Bond waterclear

(Contd. of page 13)

· 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)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organisation
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
ADR: Accord européen sur le transport 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
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 1: Acute toxicity - inhalation – Category 1
Acute Tox. 4: Acute toxicity - inhalation – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
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
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4