according to 1907/2006/EC, Article 31

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

· 1.1 Product identifier

· Trade name: Multi-Purpose Filler No. 2

20302, 20303, 20304, 20317, 20318, 20319, 20388, 20330, 20380 Article number:

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

No further relevant information available.

Application of the substance / the

Knife filler/ Surfacer mixture Polyester resin

· 1.3 Details of the supplier of the safety data sheet

 Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH

> Lechstrasse 28 D 90451 Nürnberg

Laboratory

Tel. +49(0)911-642960 Fax. +49(0)911-644456 e-mail info@akemi.de

· Further information obtainable from:

· 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



GHS02 flame

Flam. Liq. 3 Flammable liquid and vapour. H226



GHS08 health hazard

Repr. 2 H361d Suspected of damaging the unborn child.

STOT RE 2 H373 May cause damage to the hearing organs through prolonged or repeated exposure.



Storage:

GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Aguatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

with water [or shower].

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

Store in a well-ventilated place. Keep cool.

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· 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.







Warning

· Signal word

· Hazard-determining components of labelling:

· Hazard statements

styrene

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361d Suspected of damaging the unborn child.

H373 May cause 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 / eye protection. P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

rinsing.

P314 Get medical advice/attention if you feel unwell. Store in a well-ventilated place. Keep cool. P403+P235

P501 Dispose of contents/container in accordance with local/

regional/national/international regulations.

During processing and product hardening the network generator is released as · 2.3 Other hazards

fume. Consequently, take care for adequate air conditioning and for fume

exhaustion on request.

· Results of PBT and vPvB assessment

Not applicable. · PBT: · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Mixture: consisting of the following components.

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	(Contd.	of page 2)
 Dangerous components: 		
CAS: 100-42-5	styrene	<10%
EINECS: 202-851-5	♦ Flam. Liq. 3, H226	
Index number: 601-026-00-0	& Repr. 2, H361d; STOT RE 1, H372; Asp. Tox. 1, H304	
Reg.nr.: 01-2119457861-32	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
	Aquatic Chronic 3, H412	
CAS: 25013-15-4	vinyltoluene	1-5%
EINECS: 246-562-2	♦ Flam. Liq. 3, H226	
Reg.nr.: 01-2119622074-50-0000		
	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 7779-90-0	trizinc bis(orthophosphate)	1-5%
EINECS: 231-944-3	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
Index number: 030-011-00-6		
Reg.nr.: 01-2119485044-40-0000		
· 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.

Position and transport stably in side position.

· After inhalation: 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.

Immediately rinse with water.

Rinse opened eye for several minutes under running water. If symptoms persist, · After eye contact:

consult a doctor.

If symptoms persist consult doctor. After swallowing:

· 4.2 Most important symptoms and effects, both acute and

delayed

Breathing difficulty

Headache Dizziness Dizziness Coughing

Profuse sweating

· Information for doctor: Symptoms in intoxication with (aromatic) hydrocarbons (dosis letalis about 30 g)

a) In acute intoxication: headache, dizziness, euphoria, gastro-intestinal

dysfunction, state of excitement, coma.

b) In chronic intoxication: myelotoxic damage, fatigue, dizziness, emaciation,

cardiac palpitation after physical exercise, leucopenia, anemia, leukosis. Therapy in hydrocarbons intoxication: In case of inhalation provision of fresh air;

in case of peroral intake administration of Carbo medicinalis; only after intubation conduct of gastrolavage in application of Carbo medicinalis; in case of

cramps administration of Diazepam 20 mg intravenously.

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

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· Hazards



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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

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 In case of fire, the following can be released:

Carbon monoxide (CO)

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

During heating or in case of fire poisonous gases are produced.

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.

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.

SECTION 6: Accidental release measures

· 6.1 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.

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions: Do not allow product to reach sewage system or any water course.

Prevent seepage into sewage system, workpits and cellars.

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

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

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• 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** 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

<u>handling</u> 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.

Open and handle receptacle with care.

Prevent formation of aerosols.

· Information about fire - and

explosion protection: Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by

<u>storerooms and receptacles:</u> Store only in the original receptacle.

Prevent any seepage into the ground.

· Information about storage in one

common storage facility:

Store away from oxidising agents.

Store away from foodstuffs.

Further information about storage

conditions:

Store receptacle in a well ventilated area.

Protect from frost.

Keep container tightly sealed.

Storage class:

3

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

SECTION 8: Exposure controls/personal protection

Additional information about

<u>design of technical facilities:</u> 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

· DNELs

100-42-5 styrene

Oral DNEL (Langzeit-wiederholt) 2.1 mg/kg bw/day (BEV)

Dermal DNEL (Langzeit-wiederholt) 406 mg/kg bw/day (ARB)

343 mg/kg bw/day (BEV)

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de name.	Muiti-i	Purpose Filler No. 2			
			(Contd. of page s		
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)		
25013-15-	•				
		(Langzeit-wiederholt)	37 mg/m³ Air (ARB)		
7779-90-0	trizino	bis(orthophosphate			
Oral	DNEL	(Langzeit-wiederholt)	0.83 mg/kg bw/day (BEV)		
Dermal	DNEL	(Langzeit-wiederholt)	83 mg/kg bw/day (ARB)		
			83 mg/kg bw/day (BEV)		
Inhalative	DNEL	(Langzeit-wiederholt)	5 mg/m³ Air (ARB)		
			2.5 mg/m³ Air (BEV)		
PNECs					
100-42-5 s	styrene				
	•	5 mg/l (KA)			
(g/	0.014 mg/l (MW)			
		0.028 mg/l (SW)			
		0.04 mg/l (WAS)			
PNEC (fes		o , ,	√(BO)		
I INLO (163) (2 mg/kg Trockengew (BO) 307 mg/kg Trockengew (MWS)		
		0.614 mg/kg Trockeng			
25013-15-	4 viny		ew (3VV3)		
PNEC (wa	issiig)	1 mg/l (KA)			
		0.002 mg/l (MW)			
		0.0498 mg/l (SW)	(7.0)		
PNEC (fes	st)	0.133 mg/kg Trockeng			
		0.0684 mg/kg Trocken			
		0.684 mg/kg Trockeng			
Additional	inform	ation: The	lists valid during the making were used as basis.		
8.2 Expos	ure co	ontrols			
		ve equipment:			
		<u>re and hygienic</u>	not eat, drink, smoke or sniff while working.		
measures:	-		skin protection cream for skin protection.		
			an skin thoroughly immediately after handling the product.		
			p away from foodstuffs, beverages and feed.		
			nediately remove all soiled and contaminated clothing		
			Vash hands before breaks and at the end of work.		
			e protective clothing separately. not inhale gases / fumes / aerosols.		
			id contact with the eyes and skin.		
Respirator	y prote	ection: Sho	rt term filter device:		
			er A/P2		
			ase of brief exposure or low pollution use respiratory filter device. In case		
Protection	of han		nsive or longer exposure use self-contained respiratory protective device. ventive skin protection by use of skin-protecting agents is recommended.		
			or use of gloves apply skin-cleaning agents and skin cosmetics.		
		, 1110			



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Protective gloves

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 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).

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:

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 agent recommendation for skin aftercare:

Kresto Classic (http://debstoko.com)

Skin protection recommendation for skin cleaning after product handling:

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

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 material

Value for the permeation: Level ≤ 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:

Nitrile rubber, NBR

Camatril (KCL, 730, 731, 732, 733) Butoject (KCL, Art_No. 897, 898)

Butyl rubber, BR

 Not suitable are gloves made of the following materials:

Chloroprene rubber, CR

Leather gloves

Strong material gloves

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· Eye protection:

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Tightly sealed goggles

- Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information	on on basic	ph	ysıcal	and	chen	nıcal	pro	perties	

· General Information

Appearance:

Form: Structurally viscous

Colour:
∙ Odour:
• Odour threshold:Beige
Specific type
Not determined.

· <u>pH-value:</u> Not applicable

Change in condition

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 145 °C

· Flash point: 31 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 480 °C

Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

• Explosive properties: Product is not explosive. However, formation of explosive air/vapour

mixtures are possible.

· Explosion limits:

<u>Lower:</u> 1.2 Vol % <u>Upper:</u> 8.9 Vol %

· Vapour pressure at 20 °C: 6 hPa

Density at 20 °C:
 Relative density
 Vapour density
 Not determined.
 Not determined.

Evaporation rate
 Not determined.

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

• Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic: Not determined.
Not applicable
Kinematic: Not determined.

· Solvent content:

Organic solvents: 13.4 %
Solids content: 42.0 %

• 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

• **10.1 Reactivity** No further relevant information available.

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· 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

Exothermic polymerisation.
Reacts with strong alkali.

Reacts with strong acids.
Reacts with strong oxidising agents.

• 10.4 Conditions to avoid • 10.5 Incompatible materials: No further relevant information available. No further relevant information available.

10.6 Hazardous decomposition

products:

Carbon monoxide and carbon dioxide

Phosphorus compounds

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 >72.5 mg/l

10	00-	42-5	Stv	re r	ıe
----	-----	------	-----	-------------	----

Oral		>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat) (OECD-Prüfrichtlinie 402)
		9.5 mg/m3 (mouse)
		11.8 mg/l (rat)
	NOAEC	4.34 mg/l (rat)

25013-15-4 vinyltoluene

Oral	LD50	3,680 mg/kg (rat)
		600 mg/kg (rat)
Dermal	LD50	4,490 mg/kg (rabbit) >3,535 mg/m3 (rat)
Inhalative	LC50/4h	>3,535 mg/m3 (rat)
	LC50/4 h	11 mg/l (ATE)

7779-90-0 trizinc bis(orthophosphate)

Oral	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>5.7 mg/l (rat)

Primary irritant effect:

· Skin corrosion/irritation Causes skin irritation.

· Serious eye damage/irritation Causes serious eye irritation.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

• 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.

Toxicokinetics, metabolism and

distribution

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

Acute effects (acute toxicity, irritation and corrosivity)

Styrene:

Artificial special nutrition in rat population, acute LD50 value, oral: 5000 mg/kg.

Inhalation, rat population, acute LC50 value (4h): 24 mg/l.

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 CMR effects (carcinogenity, mutagenicity and toxicity for

reproduction)

production) Styrene

Tests for chromosome divergence: Mouse micro-nucleus test: mutagen

Styrene:

Tests for DNA effects:

exchange of chromatides: mutagenDNA chain fragmentation: mutagen

Germ cell mutagenicity
 Carcinogenicity
 Based on available data, the classification criteria are not met.
 Based on available data, the classification criteria are not met.

• Reproductive toxicity Suspected of damaging the unborn child.

• <u>STOT-single exposure</u> Based on available data, the classification criteria are not met.

• STOT-repeated exposure May cause damage to the hearing organs through prolonged or repeated

exposure.

• <u>Aspiration hazard</u> Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxic	· Aquatic toxicity:				
100-42-5 sty	100-42-5 styrene				
EC50/96h	EC50/96h 6.3 mg/l (Pseudokirchneriella subcapitata)				
EC50	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)				
25013-15-4	25013-15-4 vinyltoluene				
EC50	2.6 mg/l (Bluegill.)				
EC50/48h	1.3 mg/l (daphnia magna)				
	1.6 mg/l (green alge)				
NOEC/21d	0.498 mg/l (daphnia magna)				
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	0.563 mg/l (piscis)
EC50/72h	5.2 mg/l (Fathead minnow)
	2.6 mg/l (selenastrum capricornutum)
LC50/96h	5.2-23.4 mg/l (piscis)
7779-90-0 tr	izinc bis(orthophosphate)
EC50/48h	28.2 mg/l (daphnia magna)
ErC50/72h	<0.3 mg/l (Desmodesmus subspicatus)
EC50/48h	<1.7 mg/l (daphnia magna)
EC50/72h	0.28 mg/l (Selenastrum capricornutum)
LC50/96h	<5.1 mg/l (Oncorhynchus mykiss)

· 12.2 Persistence and

No further relevant information available. degradability · 12.3 Bioaccumulative potential No further relevant information available. · 12.4 Mobility in soil No further relevant information available.

· Ecotoxical effects:

Harmful to fish · Remark:

· Additional ecological information:

Do not allow product to reach ground water, water course or sewage system. General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for

Harmful to aquatic organisms

· 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		
		MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	
ľ	20 01 00	separately collected fractions (except 15 01)	
ſ	20 01 27*	paint, inks, adhesives and resins containing hazardous substances	

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	UN3269

· 14.2 UN proper shipping name

· ADR 3269 POLYESTER RESIN KIT · IMDG, IATA POLYESTER RESIN KIT

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· 14.3 Transport hazard class(es)

· ADR



· <u>Class</u> 3 (F3) Flammable liquids.

· <u>Label</u>

· IMDG, IATA



· <u>Class</u> 3 Flammable liquids.

· Label 3

· 14.4 Packing group

· ADR, IMDG, IATA

· 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-D
- 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)
 Excepted quantities (EQ)
 5L
 Code: E0

Not permitted as Excepted Quantity

Transport categoryTunnel restriction code

• 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

· UN "Model Regulation": UN 3269 POLYESTER RESIN KIT, 3, 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 P5c FLAMMABLE LIQUIDS

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AKEMI®

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· 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

- REGULATION (EC) No 1907/2006

ANNEX XVII Conditions of restriction: 3

· National regulations:

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

observed.

Employment restrictions concerning juveniles must be observed.

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

· VOC EU

260.6 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.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful 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.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.H412 Harmful to aquatic life with long lasting effects.

Recommended restriction of use refer to Technical Data Sheet (TDS)

Department issuing SDS: Laboratory

- Contact:

Dieter Zimmermann

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 vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids – Category 3 Acute Tox. 4: Acute toxicity - inhalation – Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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 Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
(Contd. on page 14)

GF



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REACH directive 1907/2006/EC

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Sources

 * Data compared to the previous version altered.

Adaptation in accordance with REACH directive 1907/2006/EC

GB