Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Techno Repair Adhesive

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture:
Adhesive
Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet
GB

Techniqua Handels GmbH, Tiroler Straße 2a, 83435 Bad Reichenhall, Germany
Phone:08651/ 90 57 167, Fax:08651/ 90 57 169

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number
Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:
+49 (0)8651 7676251

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Flam. Liq.	2	H225-Highly flammable liquid and vapour.
Skin Corr.	1A	H314-Causes severe skin burns and eye damage.
STOT SE	3	H335-May cause respiratory irritation.
Skin Sens.	1	H317-May cause an allergic skin reaction.
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.

2.2 Label elements
Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H225-Highly flammable liquid and vapour. H314-Causes severe skin burns and eye damage. H335-May cause respiratory irritation. H317-May cause an allergic skin reaction. H412-Harmful to aquatic life with long lasting effects.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260-Do not breathe vapours. P280-Wear protective gloves / protective clothing and 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. P310-Immediately call a POISON CENTER / doctor.

Methyl methacrylate
Methacrylic acid
Maleic acid
Rosin
Ethoxylated trimethylolpropane triacrylate

2.3 Other hazards
The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substance
n.a.

3.2 Mixture

Methyl methacrylate	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	01-2119452498-28-XXXX
Index	607-035-00-6
EINECS, ELINCS, NLP	201-297-1
CAS	80-62-6
content %	50-<75
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317

Methacrylic acid	
Registration number (REACH)	01-2119463884-26-XXXX
Index	607-088-00-5
EINECS, ELINCS, NLP	201-204-4
CAS	79-41-4
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 4, H332 Skin Corr. 1A, H314

Maleic acid	
Registration number (REACH)	01-2119488705-25-XXXX
Index	607-095-00-3
EINECS, ELINCS, NLP	203-742-5
CAS	110-16-7
content %	1-<3
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317

Rosin	
Registration number (REACH)	01-2119480418-32-XXXX
Index	650-015-00-7
EINECS, ELINCS, NLP	232-475-7
CAS	8050-09-7
content %	0,01-<3

Classification according to Regulation (EC) 1272/2008 (CLP)	Skin Sens. 1, H317

Ethoxylated trimethylolpropane triacrylate	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	---
CAS	28961-43-5
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319 Skin Sens. 1, H317

alpha-alpha-dimethylbenzyl hydroperoxide	
Registration number (REACH)	---
Index	617-002-00-8
EINECS, ELINCS, NLP	201-254-7
CAS	80-15-9
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 3, H331 Acute Tox. 4, H312 Acute Tox. 4, H302 STOT RE 2, H373 Skin Corr. 1B, H314 Aquatic Chronic 2, H411 Org. Perox. Type E, H242

2,6-di-tert-butyl-p-cresol	
Registration number (REACH)	01-2119565113-46-XXXX
Index	---
EINECS, ELINCS, NLP	204-881-4
CAS	128-37-0
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.
For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!
For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.
Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.
Protect uninjured eye.
Follow-up examination by an ophthalmologist

Ingestion

Rinse the mouth thoroughly with water.
Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.
Corrosive burns on skin as well as mucous membrane possible.
Risk of serious damage to eyes.
Danger of blindness

Ingestion:
Pain in the mouth and throat
Oesophageal perforation
stomach pain
Gastric perforation
Inhalation:
Irritation of the respiratory tract
Coughing

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:
Oxides of carbon
Halogen halides
Toxic gases
Explosive vapour/air mixture
Dangerous vapours heavier than air.
In case of spreading near the ground, flashback to distance sources of ignition is possible.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep unprotected persons away.
Remove possible causes of ignition - do not smoke.
Ensure sufficient supply of air.
Avoid inhalation, and contact with eyes or skin.
If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent from entering drainage system.
Prevent surface and ground-water infiltration, as well as ground penetration.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.
Fill the absorbed material into lockable containers.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
Avoid inhalation of the vapours.
Avoid contact with eyes or skin.

Keep away from sources of ignition - Do not smoke.
Take measures against electrostatic charging, if appropriate.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
Store product closed and only in original packing.
Not to be stored in gangways or stair wells.
Do not store with flammable or self-igniting materials.
Protect from direct sunlight and warming.
Observe special storage conditions.
Store in a well ventilated place.
Protect from direct sunlight and warming.
Store cool.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

GB	Chemical Name	Methyl methacrylate		Content %:50-<75
WEL-TWA: 50 ppm (208 mg/m3) (WEL), 50 ppm (EU)		WEL-STEL: 100 ppm (416 mg/m3) (WEL), 100 ppm (EU)	---	
Monitoring procedures:	- Compur - KITA-184 S (548 618) NIOSH 2537 (Methyl and ethyl metacrylate) - 2003 - EU project - BC/CEN/ENTR/000/2002-16 card 109-2 (2004)			
BMGV: ---		Other information: ---		

GB	Chemical Name	Methacrylic acid		Content %:1-<10
WEL-TWA: 20 ppm (72 mg/m3)		WEL-STEL: 40 ppm (143 mg/m3)	---	
Monitoring procedures:	---			
BMGV: ---		Other information: ---		

GB	Chemical Name	Rosin		Content %:0,01-<3
WEL-TWA: 0,05 mg/m3 (Rosin-based solder flux fume)		WEL-STEL: 0,15 mg/m3 (Rosin-based solder flux fume)	---	
Monitoring procedures:	---			
BMGV: ---		Other information: Sen (Rosin-based solder flux fume)		

GB	Chemical Name	2,6-di-tert-butyl-p-cresol		Content %:0,1-<1
WEL-TWA: 10 mg/m3		WEL-STEL: ---	---	
Monitoring procedures:	---			
BMGV: ---		Other information: ---		

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

Methyl methacrylate

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,94	mg/l	
	Environment - marine		PNEC	0,094	mg/l	
	Environment - sediment		PNEC	5,74	mg/kg	
Industrial / commercial	Human - dermal	Long term, local effects	DNEL	1,5	mg/kg	
Industrial / commercial	Human - inhalation	Long term, local effects	DNEL	210	mg/m3	
Industrial / commercial	Human - inhalation	Long term, systemic effects	DNEL	210	mg/m3	
Industrial / commercial	Human - dermal	Long term, systemic effects	DNEL	13,67	mg/kg	

Methacrylic acid

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,82	mg/l	
	Environment - marine		PNEC	0,82	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,82	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - soil		PNEC	1,2	mg/kg dry weight	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	6,3	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	6,55	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	2,55	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	88	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	29,6	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	4,25	mg/kg bw/d	

Maleic acid

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,074	mg/l	
	Environment - periodic release		PNEC	0,744	mg/l	
	Environment - sediment, freshwater		PNEC	0,0624	mg/kg	
	Environment - sewage treatment plant		PNEC	3,33	mg/l	
Workers / employees	Human - dermal	Short term, local effects	DNEL	0,55	mg/cm2	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,04	mg/cm2	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	58	mg/kg	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	3,3	mg/kg	

Rosin

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,005	mg/l	
	Environment - marine		PNEC	0,0005	mg/l	
	Environment - sewage treatment plant		PNEC	1000	mg/l	
	Environment - soil		PNEC	21,4	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	15	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	52,174	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	15	mg/kg bw/d	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	25	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	176,32	mg/m3	

8.2 Exposure controls
8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.
Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.
These are specified by e.g. EN 14042.
EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
Chemical resistant protective gloves (EN 374).
Recommended
Protective gloves in butyl rubber (EN 374).
Minimum layer thickness in mm:
0,7
Permeation time (penetration time) in minutes:
> 60
The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.
Protective hand cream recommended.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:
If OES or MEL is exceeded.
Gas mask filter A (EN 14387), code colour brown
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid 20°C
Colour:	According to specification
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	11 °C (closed cup)
Evaporation rate:	Not determined
Flammability (solid, gas):	n.a.
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	0,97-1,03 g/ml
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Not miscible
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	>40 mm2/s (40°C)
Explosive properties:	Product is not explosive. Possible build up of explosive/highly flammable vapour/air mixture.
Oxidising properties:	Not determined

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
Exothermic reaction possible with:
Peroxides
Oxidizing agents
Bases
Acids

10.4 Conditions to avoid
Heating, open flame, ignition sources

10.5 Incompatible materials
Avoid contact with strong alkalis.
Avoid contact with strong acids.
Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

Techno Repair Adhesive						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Aerosol
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Methyl methacrylate						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by oral route:	LD50	>6000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	29,8	mg/l	Rat		
Skin corrosion/irritation:				Rabbit		Irritant
Skin corrosion/irritation:						Irritant
Serious eye damage/irritation:				Rabbit		Mild irritant
Respiratory or skin sensitisation:						Yes (skin contact)
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising (skin contact)
Respiratory or skin sensitisation:				Human being		Sensitising (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Specific target organ toxicity - single exposure (STOT-SE):						Irritation of the respiratory tract
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	2000	ppm	Rat		
Aspiration hazard:						No indications of such an effect.

Symptoms:						breathing difficulties, respiratory distress, drowsiness, drop in blood pressure, coughing, headaches, fatigue, mucous membrane irritation, watering eyes, mental confusion
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Irritation of the respiratory tract
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	1000	ppm	Mouse		14w, 6h/d, 5d/w

Methacrylic acid						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	1320	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	500-1000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	7,1	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Corrosive
Serious eye damage/irritation:				Rabbit	(Draize-Test)	Risk of serious damage to eyes.
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising

Maleic acid						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	1030	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	2620	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>720	mg/m3	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Intensively irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Sensitising
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative

Symptoms:						breathing difficulties, respiratory distress, eyes, reddened, coughing, headaches, gastrointestinal disturbances, mucous membrane irritation, nausea and vomiting., Oedema of the lungs
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Target organ(s): respiratory organs, May cause respiratory irritation.

Rosin

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2800	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:						Mechanical irritation possible.
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Negative, Does not conform with EU classification.
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity:	NOEL	3000	ppm	Rat	OECD 421 (Reproduction/Developmental Toxicity Screening Test)	No indications of such an effect.
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	600	mg/kg/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Aspiration hazard:						No
Symptoms:						asthmatic symptoms, headaches, gastrointestinal disturbances, dizziness, nausea

Ethoxylated trimethylolpropane triacrylate

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	13200	mg/kg	Rabbit		

Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant, Analogous conclusion
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Sensitising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	250	mg/kg/d	Rat		Analogous conclusion

alpha-alpha-dimethylbenzyl hydroperoxide						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	382	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	500	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	220	ppm	Rat		(4h)

2,6-di-tert-butyl-p-cresol						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	2930	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Skin corrosion/irritation:						Irritant
Serious eye damage/irritation:						Irritant

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Techno Repair Adhesive							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

Other information:							DOC-elimination degree(complexing organic substance)>= 80%/28d: n.a.

Methyl methacrylate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	>79	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	LC50	96h	>79	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	References
12.1. Toxicity to fish:	LC50	96h	130	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL		9,4	mg/l	Brachydanio rerio	OECD 210 (Fish, Early-Life Stage Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	69	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	37	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	>110	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC50	96h	37	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		14d	94	%		OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	Readily biodegradable
12.2. Persistence and degradability:		28d	>95	%		OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,38				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.3. Bioaccumulative potential:	Log Pow		1,32-1,38			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.4. Mobility in soil:							No indications of such an effect.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Water solubility:			15,9	g/l			20°C

Methacrylic acid							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50		85	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50		>130	mg/l	Daphnia magna		
12.1. Toxicity to algae:	ErC50		45	mg/l	Pseudokirchneriella subcapitata		

Maleic acid							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	75	mg/l	Pimephales promelas		
12.1. Toxicity to daphnia:	EC50	48h	42,81	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	74,35	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	97	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
Other information:	ThOD		830	mg/g			References
Water solubility:			478,8	g/l			20°C

Rosin							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	NOELR	96h	1	mg/l	Brachydanio rerio		
12.1. Toxicity to daphnia:	LC0	48h	3,8-5,4	mg/l		OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	400-410	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	89	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		<=130				Oncorhyncus mykiss
Toxicity to bacteria:	EC50	3h	>10000	mg/l	activated sludge	DIN EN ISO 11348-2	
Water solubility:			<1	mg/l			20°C

Ethoxylated trimethylolpropane triacrylate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.2. Persistence and degradability:			58-61	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	

alpha-alpha-dimethylbenzyl hydroperoxide							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**

12.1. Toxicity to fish:	LC50	96h	3,9	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	18	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	ErC50	72h	3,1	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	3	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	

2,6-di-tert-butyl-p-cresol							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	0,199	mg/l			
12.1. Toxicity to daphnia:	EC50	48h	0,31	mg/l			
12.1. Toxicity to algae:	IC50	72h	0,42	mg/l			
12.2. Persistence and degradability:							Not readily biodegradable
12.3. Bioaccumulative potential:	BCF		598				

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
08 04 09 waste adhesives and sealants containing organic solvents or other hazardous substances
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
E.g. suitable incineration plant.
Hardened product:
E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.
Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.
Do not perforate, cut up or weld uncleaned container.
Residues may present a risk of explosion.

SECTION 14: Transport information

General statements

14.1. UN number: 1133

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:
UN 1133 ADHESIVES (SPECIAL PROVISION 640D)



14.3. Transport hazard class(es): 3
14.4. Packing group: II
Classification code: F1
LQ: 5 L
14.5. Environmental hazards: Not applicable
Tunnel restriction code: D/E

Transport by sea (IMDG-code)

14.2. UN proper shipping name:
ADHESIVES



14.3. Transport hazard class(es):	3
14.4. Packing group:	II
EmS:	F-E, S-D
Marine Pollutant:	n.a
14.5. Environmental hazards:	Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:
Adhesives



14.3. Transport hazard class(es):	3
14.4. Packing group:	II
14.5. Environmental hazards:	Not applicable

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:
Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): > 55 %

Observe incident regulations.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: n.a.
These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.
Employee training in handling dangerous goods is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Flam. Liq. 2, H225	Classification based on test data.
Skin Corr. 1A, H314	Classification according to calculation procedure.
STOT SE 3, H335	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.
Aquatic Chronic 3, H412	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
H314 Causes severe skin burns and eye damage.
H225 Highly flammable liquid and vapour.
H242 Heating may cause a fire.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.

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.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

Flam. Liq. — Flammable liquid
Skin Corr. — Skin corrosion
STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation
Skin Sens. — Skin sensitization
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Skin Irrit. — Skin irritation
Acute Tox. — Acute toxicity - oral
Acute Tox. — Acute toxicity - dermal
Acute Tox. — Acute toxicity - inhalation
Eye Irrit. — Eye irritation
STOT RE — Specific target organ toxicity - repeated exposure
Org. Perox. — Organic peroxide
Aquatic Acute — Hazardous to the aquatic environment - acute

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to according, according to
ACGIH American Conference of Governmental Industrial Hygienists
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL Acceptable Operator Exposure Level
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
BMGV Biological monitoring guidance value (EH40, UK)
BOD Biochemical oxygen demand
BSEF Bromine Science and Environmental Forum
bw body weight
CAS Chemical Abstracts Service
CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC Collaborative International Pesticides Analytical Council
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
COD Chemical oxygen demand
CTFA Cosmetic, Toiletry, and Fragrance Association
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
DT50 Dwell Time - 50% reduction of start concentration
DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EC European Community

ECHA European Chemicals Agency
EEA European Economic Area
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ERC Environmental Release Categories
ES Exposure scenario
etc. et cetera
EU European Union
EWC European Waste Catalogue
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
HET-CAM Hen's Egg Test - Chorionallantoic Membrane
HGWP Halocarbon Global Warming Potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC Intermediate Bulk Container
IBC (Code) International Bulk Chemical (Code)
IC Inhibitory concentration
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform ChemicaL Information Database
LC lethal concentration
LC50 lethal concentration 50 percent kill
LCLo lowest published lethal concentration
LD Lethal Dose of a chemical
LD50 Lethal Dose, 50% kill
LDLo Lethal Dose Low
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration
LOEL Lowest Observed Effect Level
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute of Occupational Safety and Health (United States of America)
NOAEC No Observed Adverse Effective Concentration
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL No Observed Effect Level
ODP Ozone Depletion Potential
OECD Organisation for Economic Co-operation and Development
org. organic
PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic
PC Chemical product category
PE Polyethylene
PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential
ppm parts per million
PROC Process category
PTFE Polytetrafluorethylene
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship

SU Sector of use
SVHC Substances of Very High Concern
Tel. Telephone
ThOD Theoretical oxygen demand
TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).
WHO World Health Organization
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

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