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

Printing date 27.05.2015 Version number 1 Revision: 27.05.2015

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

- **1.1 Product identifier**

- **Trade name: ergo 1913**
- **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** Adhesives

- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
KISLING DEUTSCHLAND GmbH
Drillberg
D-97980 Bad Mergentheim
Telefon: +49-(0) 791-407 27-0 Telefax: +49-(0) 791-407 27-50

- **Further information obtainable from:** Safety Department
- **Department issuing MSDS:** ergo@kisling.com
- **1.4 Emergency telephone number:** Swiss Toxicological Information Centre: +41-(0) 44-2 51 51 51

SECTION 2: Hazards identification

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

Flam. Liq. 3	H226	Flammable liquid and vapour.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Dam. 1	H318	Causes serious eye damage.
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.
- **Hazard pictograms**

GHS02 GHS05 GHS07

- **Signal word** Danger

- **Hazard-determining components of labelling:**
methyl methacrylate
α,α -dimethylbenzyl hydroperoxide
2-hydroxyethyl methacrylate
- **Hazard statements**
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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P261 Avoid breathing mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Adhesive

- **Dangerous components:**		
CAS: 80-62-6 EINECS: 201-297-1 Index number: 607-035-00-6 Reg.nr.: 01-2119452498-28-xxxx	methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	25-<100%
CAS: 868-77-9 EINECS: 212-782-2 Index number: 607-124-00-X	2-hydroxyethyl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	25-<100%
CAS: 80-15-9 EINECS: 201-254-7 Index number: 617-002-00-8	α,α -dimethylbenzyl hydroperoxide Org. Perox. EF, H242; Acute Tox. 3, H331; STOT RE 2, H373; Skin Corr. 1B, H314; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312	3-<10%
CAS: 98-82-8 EINECS: 202-704-5 Index number: 601-024-00-X	isopropylbenzene Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335	0,3-<1%

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

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
After contact with skin, wash immediately with plenty of soap and water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Can form explosive gas-air mixtures.
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
Fumes can combine with air to form an explosive mixture.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 10 for information on "stability and reactivity".
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.

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Protect from heat and direct sunlight.
Store under lock and key and out of the reach of children.
- **Maximum storage temperature:** 28 °C
- **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:**	
80-62-6 methyl methacrylate	
AGW (Germany)	Long-term value: 210 mg/m³, 50 ppm 2(I);DFG, EU, Y
IOELV (European Union)	Short-term value: 100 ppm Long-term value: 50 ppm
868-77-9 2-hydroxyethyl methacrylate	
MAK (Germany)	vgl.Abschn.IIb
80-15-9 α,α -dimethylbenzyl hydroperoxide	
MAK (Germany)	als Dampf und Aerosol;vgl.Abschn.Xa

- **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.
- **Respiratory protection:**
Use suitable respiratory protective device in case of insufficient ventilation.
filter A (EN 141)
- **Protection of hands:**
Protective gloves (EN 374)
Check protective gloves prior to each use for their proper condition.
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
- **Material of gloves**
Find below a list of appropriate protective gloves for chemical surrounding:
.
Permeation time / penetration time: = 60 minutes(DIN EN 374):
limited suitable:
Butyl II, Nr. 0897
Butyl, Nr. 0898
.
of KCL company (e-mail: vertrieb@kcl.de).
.
The recommendation is based exclusively on the chemical compatibility and the test according to EN374 under laboratory conditions.
Requirements can vary according to the use. Therefore, please always take into account the glove supplier’s recommendations.
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

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application.
- **Penetration time of glove material**
Permeation time / penetration time: see above (material of gloves)
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**	
- **General Information**	
- **Appearance:**	
Form:	Viscous
Colour:	White
- **Odour:**	Ester-like
- **Odour threshold:**	Not determined.
- **pH-value:**	Not determined.
- **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100 °C
- **Flash point:**	33 °C
- **Flammability (solid, gaseous):**	Not applicable.
- **Ignition temperature:**	
Decomposition temperature:	Not determined.
- **Self-igniting:**	Product is not self-igniting.
- **Danger of explosion:**	Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.
- **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
- **Vapour pressure:**	Not determined.
- **Density at 25 °C:**	0,9 - 1,1 g/cm³
- **Relative density**	Not determined.
- **Vapour density**	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 at 25 °C:	15 000 mPas
Kinematic:	Not determined.
- **9.2 Other information**	No further relevant information available.

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SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Protect from heat and direct sunlight.
- **10.3 Possibility of hazardous reactions**
Exothermic polymerisation.
Forms explosive gas mixture with air.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
No dangerous products of decomposition if used and stored according to specifications.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

- **LD/LC50 values relevant for classification:**		
80-62-6 methyl methacrylate		
Oral	LD50	7872 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rab)
Inhalative	LC50/4 h	78 000 mg/l (rat)
868-77-9 2-hydroxyethyl methacrylate		
Oral	LD50	5050 mg/kg (rat)
Dermal	LD50	3000 mg/kg (rab)
80-15-9 α,α -dimethylbenzyl hydroperoxide		
Oral	LD50	382 mg/kg (rat)
Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)
98-82-8 isopropylbenzene		
Oral	LD50	1400 mg/kg (rat)
Dermal	LD50	10 600 - 12 300 mg/kg (rbt)
Inhalative	LC50/4 h	24,7 mg/l (mus)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Strong irritant with the danger of severe eye injury.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant
No experimentally found toxicological data are available for this preparation.

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SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**	
80-62-6 methyl methacrylate	
EC50/48 h	69 mg/l (DA)
868-77-9 2-hydroxyethyl methacrylate	
LC50/96 h	213 - 242 mg/l (Pimephales promelas)
98-82-8 isopropylbenzene	
EC50/72 h	2,6 mg/l (Algae)
LC50/96 h	2,7 - 6,32 mg/l (-)

- **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.
- **Ecotoxical effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Danger to drinking water if even small quantities leak into the ground.
Do not allow product to reach ground water, water course or undiluted sewage system.
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** Disposal must be made according to official regulations.

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

SECTION 14: Transport information

- **14.1 UN-Number**	
- **ADR, IMDG, IATA**	UN1133
- **14.2 UN proper shipping name**	
- **ADR**	1133 ADHESIVES
- **IMDG, IATA**	ADHESIVES
- **14.3 Transport hazard class(es)**	
- **ADR**	

- **Class**	3 (F1) Flammable liquids.

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- **Label**	3
- **IMDG, IATA**	
	
- **Class**	3 Flammable liquids.
- **Label**	3
- **14.4 Packing group**	
- **ADR, IMDG, IATA**	III
- **14.5 Environmental hazards:**	Not applicable.
- **14.6 Special precautions for user**	Warning: Flammable liquids.
- **Danger code (Kemler):**	30
- **EMS Number:**	F-E,S-D
- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
- **Transport/Additional information:**	
- **ADR**	
- **Limited quantities (LQ)**	5L
- **Transport category**	3
- **Tunnel restriction code**	D/E
- **UN "Model Regulation":**	UN1133, ADHESIVES, 3, III

SECTION 15: Regulatory information

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

- **National regulations:**

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

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H242 Heating may cause a fire.
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.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

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- **Abbreviations and acronyms:**

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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Org. Perox. EF: Organic Peroxides, Types E, F
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

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

- **1.1 Product identifier**

- **Trade name: ergo 1914**
- **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** Adhesives

- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
KISLING DEUTSCHLAND GmbH
Drillberg
D-97980 Bad Mergentheim
Telefon: +49-(0) 791-407 27-0 Telefax: +49-(0) 791-407 27-50

- **Further information obtainable from:** Safety Department
- **Department issuing MSDS:** ergo@kisling.com
- **1.4 Emergency telephone number:** Swiss Toxicological Information Centre: +41-(0) 44-2 51 51 51

SECTION 2: Hazards identification

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

Flam. Liq. 3	H226	Flammable liquid and vapour.
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.

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

GHS02 GHS07

- **Signal word** Warning

- **Hazard-determining components of labelling:**
methyl methacrylate
2-hydroxyethyl methacrylate
- **Hazard statements**
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
- **Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Adhesive

- **Dangerous components:**		
CAS: 80-62-6 EINECS: 201-297-1 Index number: 607-035-00-6 Reg.nr.: 01-2119452498-28-xxxx	methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	25-<100%
CAS: 868-77-9 EINECS: 212-782-2 Index number: 607-124-00-X	2-hydroxyethyl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	25-<100%

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

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
After contact with skin, wash immediately with plenty of soap and water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
If swallowed, do not induce vomiting: seek medical advice and show this container or label.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Can form explosive gas-air mixtures.
Formation of toxic gases is possible during heating or in case of fire.

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- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
Fumes can combine with air to form an explosive mixture.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 10 for information on "stability and reactivity".
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Store under lock and key and out of the reach of children.
- **Maximum storage temperature:** 28 °C
- **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.

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Trade name: ergo 1914

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- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**	
80-62-6 methyl methacrylate	
AGW (Germany)	Long-term value: 210 mg/m³, 50 ppm 2(I);DFG, EU, Y
IOELV (European Union)	Short-term value: 100 ppm Long-term value: 50 ppm
868-77-9 2-hydroxyethyl methacrylate	
MAK (Germany)	vgl.Abschn.IIb

- **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.
- **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.
- **Protection of hands:**
Protective gloves (EN 374)
Check protective gloves prior to each use for their proper condition.
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
- **Material of gloves**
Find below a list of appropriate protective gloves for chemical surrounding:
.
Permeation time / penetration time: = 60 minutes(DIN EN 374):
limited suitable:
Butyl II, Nr. 0897
Butyl, Nr. 0898
.
of KCL company (e-mail: vertrieb@kcl.de).
.
The recommendation is based exclusively on the chemical compatibility and the test according to EN374 under laboratory conditions.
Requirements can vary according to the use. Therefore, please always take into account the glove supplier’s recommendations.
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**
Permeation time / penetration time: see above (material of gloves)
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles

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SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**	
- **General Information**	
- **Appearance:**	
Form:	Viscous
Colour:	Green
- **Odour:**	Ester-like
- **Odour threshold:**	Not determined.
- **pH-value:**	Not determined.
- **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
- **Flash point:**	37 °C
- **Flammability (solid, gaseous):**	Not applicable.
- **Ignition temperature:**	
Decomposition temperature:	Not determined.
- **Self-igniting:**	Product is not self-igniting.
- **Danger of explosion:**	Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.
- **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
- **Vapour pressure:**	Not determined.
- **Density at 25 °C:**	0,9 - 1,1 g/cm³
- **Relative density**	Not determined.
- **Vapour density**	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 at 25 °C:	15 000 mPas
Kinematic:	Not determined.
- **9.2 Other information**	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Protect from heat and direct sunlight.
- **10.3 Possibility of hazardous reactions**
Forms explosive gas mixture with air.
Exothermic polymerisation.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.

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- **10.6 Hazardous decomposition products:**
No dangerous products of decomposition if used and stored according to specifications.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

- **LD/LC50 values relevant for classification:**		
80-62-6 methyl methacrylate		
Oral	LD50	7872 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rab)
Inhalative	LC50/4 h	78 000 mg/l (rat)
868-77-9 2-hydroxyethyl methacrylate		
Oral	LD50	5050 mg/kg (rat)
Dermal	LD50	3000 mg/kg (rab)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
No experimentally found toxicological data are available for this preparation.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**	
80-62-6 methyl methacrylate	
EC50/48 h	69 mg/l (DA)
868-77-9 2-hydroxyethyl methacrylate	
LC50/96 h	213 - 242 mg/l (Pimephales promelas)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Danger to drinking water if even small quantities leak into the ground.
Do not allow product to reach ground water, water course or undiluted sewage system.
- **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** Disposal must be made according to official regulations.

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

SECTION 14: Transport information

- **14.1 UN-Number**	
- **ADR, IMDG, IATA**	UN1133
- **14.2 UN proper shipping name**	
- **ADR**	1133 ADHESIVES
- **IMDG, IATA**	ADHESIVES
- **14.3 Transport hazard class(es)**	
- **ADR**	
	
- **Class**	3 (F1) Flammable liquids.
- **Label**	3
- **IMDG, IATA**	
	
- **Class**	3 Flammable liquids.
- **Label**	3
- **14.4 Packing group**	
- **ADR, IMDG, IATA**	III
- **14.5 Environmental hazards:**	Not applicable.
- **14.6 Special precautions for user**	Warning: Flammable liquids.
- **Danger code (Kemler):**	30
- **EMS Number:**	F-E,S-D
- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
- **Transport/Additional information:**	
- **ADR**	
- **Limited quantities (LQ)**	5L
- **Transport category**	3
- **Tunnel restriction code**	D/E
- **UN "Model Regulation":**	UN1133, ADHESIVES, 3, III

SECTION 15: Regulatory information

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

- **National regulations:**

- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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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**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
- **Abbreviations and acronyms:**
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3