Safety Data Sheet
acc. to OSHA HCS

Printing date 09/23/2016 Reviewed on 09/01/2016

1 Identification

- **Product identifier**
- **Trade name: CILBOND 10 E**
- **Article number:** R025201-00
- **Application of the substance / the mixture** Adhesives
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Kommerling UK Ltd
217 Walton Summit Road
Bamber Bridge
Preston, Lancashire
PR5 8AQ United Kingdom
+44 (0)1772 322888
+44 (0)1772 315853
sds@cilbond.com
(calls from USA: Please dial 01149 instead of +49)
- **Information department:**
Abteilung: C-U Qualitäts- und Umweltmanagementcenter
(department: C-U Quality- and Environmentalmanagementcenter)
Tel.: +49 (0)6331/56-2553; Fax.: +49 (0)6331/56-1091
e-Mail: Productsafety@Koe-Chemie.de
(calls from USA: Please dial 01149 instead of +49)
- **Emergency telephone number:**
In case of poisoning:
GBK-EMTEL International
Tel.(24h): +49(0)6132/84463 (all languages)

In case of transport accidents:
Tel.(24h): (001) 352 323 3500 (Infotrac - Contract ID: 90373 / GBK)
(calls from USA: Please dial 01149 instead of +49)
- **Emergency-Phone from inside USA/Canada (toll free):**
1 800 535 5053 (Infotrac - Contract ID: 90373 / GBK)

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2 Hazard(s) identification

- **Classification of the substance or mixture**

Flam. Liq. 2	H225	Highly flammable liquid and vapor.
Acute Tox. 4	H332	Harmful if inhaled.
Eye Irrit. 2A	H319	Causes serious eye irritation.
Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Repr. 2	H361	Suspected of damaging fertility or the unborn child.
STOT SE 3	H335	May cause respiratory irritation.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.
Aquatic Acute 2	H401	Toxic to aquatic life.

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Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

GHS02 GHS07 GHS08 GHS09

- **Signal word** Danger
- **Hazard-determining components of labeling:**
4-methylpentan-2-one
toluene
methenamine
maleic anhydride
- **Hazard statements**
H225 Highly flammable liquid and vapor.
H332 Harmful if inhaled.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H401 Toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep container tightly closed.
Take precautionary measures against static discharge.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves / eye protection.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Do not breathe mist/vapours/spray.
Avoid contact during pregnancy/while nursing.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
Do NOT induce vomiting.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
In the event of a large-scale use of the product, ignition sources in the immediate proximity and in low-lying areas, such as welding equipment, bells, heating elements, refrigerators, storage heaters

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etc. should be switched off! Erect warning signs warning of the hazardous risk of explosive atmosphere!

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

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3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of several substances

- **Dangerous components:**

108-10-1	4-methylpentan-2-one	50-75%
108-88-3	toluene	< 10%
1314-13-2	zinc oxide	< 5.0%
100-97-0	methenamine	< 0.5%
108-31-6	maleic anhydride	< 0.5%

- **SVHC** Doesn't contain SVHC-substances

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Water spray
Alcohol resistant foam
Fire-extinguishing powder
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Keep away from ignition sources
Use respiratory protective device against the effects of fumes/dust/aerosol.

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- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Protect from frost.
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
Store receptacle in a well ventilated area.
Store in dry conditions.
- **Storage class (according german VCI-concept):** 3
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

108-10-1 4-methylpentan-2-one	
PEL (USA)	Long-term value: 410 mg/m³, 100 ppm
REL (USA)	Short-term value: 300 mg/m³, 75 ppm Long-term value: 205 mg/m³, 50 ppm
TLV (USA)	Short-term value: 307 mg/m³, 75 ppm Long-term value: 82 mg/m³, 20 ppm BEI
IOELV (European Union)	Short-term value: 208 mg/m³, 50 ppm Long-term value: 83 mg/m³, 20 ppm
108-88-3 toluene	
PEL (USA)	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL (USA)	Short-term value: 560 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm
TLV (USA)	Long-term value: 75 mg/m³, 20 ppm BEI

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108-31-6 maleic anhydride	
PEL (USA)	Long-term value: 1 mg/m³, 0.25 ppm
REL (USA)	Long-term value: 1 mg/m³, 0.25 ppm
TLV (USA)	Long-term value: 0.01* mg/m³, 0.0025* ppm DSEN, RSEN;*inhalable fraction + vapor

- **Ingredients with biological limit values:**

108-10-1 4-methylpentan-2-one	
BEI (USA)	1 mg/L Medium: urine Time: end of shift Parameter: MIBK

108-88-3 toluene	
BEI (USA)	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene 0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Immediately remove all soiled and contaminated clothing.
- **Breathing equipment:**
Not required with good ventilation and/or adequate extractor facilities
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Short term filter device:
A2 (DIN EN 14387 / DIN EN 141)
- **Protection of hands:**
Direct contact with the chemical preparation must be avoided by organizational measures. Apply skin protectant before working with gloves to avoid skin swellings and use a skin cleansing and skincare product after the work.
Compliance with the stated penetration time (starts with the first product contact) must be ensured!
The gloves need to be disposed of after the penetration time and new gloves used!
- **For the permanent contact gloves made of the following materials are suitable:**
If longer exposure to the chemical preparation is necessary, a sturdy overglove against mechanical strain is recommended in combination with the “Barrier 02-100” underglove from Ansell (penetration time 480 min).
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Fluorinated rubber (Viton) [0.7mm - penetration time 15 min]

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- **As protection from splashes gloves made of the following materials are suitable:**
  Recommended for protection from splashes: disposable nitrile gloves (minimum thickness 0.12 mm) with long cuffs. After contact with the chemical preparation, take the disposable nitrile glove off immediately and put on a new disposable nitrile glove.
- **Eye protection:** Safety glasses

9 Physical and chemical properties

- **Information on basic physical and chemical properties**	
- **General Information**	
- **Appearance:**	
Form:	Fluid
Color:	Grey
- **Odor:**	Solvent-like
- **Change in condition**	
Boiling point/Boiling range:	110 °C (230 °F)
- **Flash point:**	16 °C (61 °F)
- **Ignition temperature:**	460 °C (860 °F)
- **Explosion limits:**	
Lower:	1.2 Vol %
Upper:	8.0 Vol %
- **Vapor pressure at 20 °C (68 °F):**	29 hPa (22 mm Hg)
- **Density at 20 °C (68 °F):**	0.95 g/cm³ (7.928 lbs/gal)
- **Solubility in / Miscibility with**	
Water:	Partly soluble.
- **Solvent content:**	
Organic solvents:	74.4 %
VOC content:	74.4 % 706.7 g/l / 5.90 lb/gl
- **Other information**	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
  To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions** Reacts with strong acids and oxidizing agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
  None, if used according to instructions and stored according to regulations

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11 Toxicological information

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

- **LD/LC50 values that are relevant for classification:**		
ATE (Acute Toxicity Estimates)		
Oral	LD50	2946 mg/kg (rat)
Inhalative	LC50/4 h	16.2 mg/l

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108-10-1 4-methylpentan-2-one		
Oral	LD50	2080 mg/kg (rat)
Inhalative	LC50/4 h	11 mg/l (ATE)
108-88-3 toluene		
Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rab)
Inhalative	LC50/4 h	5320 mg/l (mus)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **Additional toxicological information:** Harmful

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**		
1330-20-7	xylene, mixed isomers, pure	3
128-37-0	2,6-di-tert-butyl-p-cresol	3

- **NTP (National Toxicology Program)**
None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:**
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Disposal in accordance with official regulations
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**	
- **DOT, ADR,RID,ADN, IMDG, IATA**	UN1133
- **UN proper shipping name**	
- **DOT**	Adhesives
- **ADR/RID/ADN**	1133 Adhesives, ENVIRONMENTALLY HAZARDOUS
- **IMDG**	ADHESIVES (zinc oxide), MARINE POLLUTANT
- **IATA**	ADHESIVES

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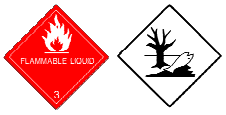
- **Transport hazard class(es)**

- **DOT**



- **Class**	3 Flammable liquids
- **Label**	3

- **ADR,RID,ADN, IMDG**

- **Class**	3 Flammable liquids
- **Label**	3

- **IATA**

- **Class**	3 Flammable liquids
- **Label**	3

- **Packing group**	
- **ADR,RID,ADN, IMDG, IATA**	II

- **Environmental hazards:**	
- **Marine pollutant:**	Yes (DOT) Symbol (fish and tree)
- **Special marking (ADR/RID/ADN):**	Symbol (fish and tree)

- **Special precautions for user**	Warning: Flammable liquids
- **Danger code (Kemler):**	30
- **EMS Number:**	F-E,S-D
- **Stowage Category**	A

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.

- **Transport/Additional information:**

- **DOT**

- **Remarks:**	Special marking with the symbol (fish and tree).

- **ADR/RID/ADN**

- **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

- **IMDG**

- **Limited quantities (LQ)**	5L
- **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

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- **UN "Model Regulation":** UN 1133 ADHESIVES, 3, II, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

- **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

- **Section 313 (Specific toxic chemical listings):**

1330-20-7	xylene, mixed isomers, pure
78-93-3	butanone
67-56-1	methanol

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

67-56-1	methanol

- **Cancerogenity categories**

- **EPA (Environmental Protection Agency)**

1330-20-7	xylene, mixed isomers, pure	I
78-93-3	butanone	I

- **TLV (Threshold Limit Value established by ACGIH)**

1330-20-7	xylene, mixed isomers, pure	A4
128-37-0	2,6-di-tert-butyl-p-cresol	A4
77-58-7	dibutyltin dilaurate	A4

- **MAK (German Maximum Workplace Concentration)**

128-37-0	2,6-di-tert-butyl-p-cresol	4
96-29-7	2-butanone oxime	2

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

None of the ingredients is listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

For industrial use only.

- **Department issuing SDS:**
- **Date of preparation / last revision** 09/23/2016 / -

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- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
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
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- *** Data compared to the previous version altered.**