





SAFETY DATA SHEET CILBOND 12E

1. Identification

Product identifier

Product name CILBOND 12E

Recommended use of the chemical and restrictions on use

Application Adhesive.

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier Kömmerling 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

Emergency telephone number

Emergency telephone +44(0)7778 029192

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 -

H351 Repr. 2 - H361d STOT SE 3 - H335, H336 STOT RE 2 - H373

Environmental hazards Aquatic Chronic 2 - H411

Human health See Section 11 for additional information on health hazards.

Physicochemical The product is highly flammable. Vapors may form explosive mixtures with air. Vapors may be

ignited by a spark, a hot surface or an ember.

Label elements

Pictogram









Signal word

Danger

Hazard statements H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe vapor/spray. P261 Avoid breathing vapor/spray.

P264 Wash contaminated skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 [In case of inadequate ventilation] wear respiratory protection.

P302+P352 If on skin: Wash with plenty of water.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 If exposed or concerned: Get medical advice/attention.

P312 Call a poison center/doctor if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P321 Specific treatment (see medical advice on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.

P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

P391 Collect spillage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container in accordance with national regulations.

Contains

toluene, 4-methylpentan-2-one, butanone, Solvent naphtha (petroleum), light arom., xylene, methenamine, 2-butanone oxime, maleic anhydride

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

toluene
CAS number: 108-88-3

Classification
Flam. Liq. 2 - H225
Skin Irrit. 2 - H315
Repr. 2 - H361d
STOT SE 3 - H336
STOT RE 2 - H373

4-methylpentan-2-one 10-30%

CAS number: 108-10-1

Asp. Tox. 1 - H304

Classification

Flam. Liq. 2 - H225 Acute Tox. 4 - H332 Eye Irrit. 2 - H319 STOT SE 3 - H335

butanone 5-10%

5-10%

CAS number: 78-93-3

Classification

Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336

Solvent naphtha (petroleum), light arom.

CAS number: 64742-95-6

Classification

Flam. Liq. 3 - H226 STOT SE 3 - H335 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411

xylene	5-10%
CAS number: 1330-20-7	
Classification	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H312	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Irrit. 2A - H319	
STOT SE 3 - H335	
STOT RE 2 - H373	
Asp. Tox. 1 - H304	

resorcinol

CAS number: 108-46-3

M factor (Acute) = 1

Classification

Acute Tox. 4 - H302

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

Skin Sens. 1B - H317

STOT SE 1 - H370

Aquatic Acute 1 - H400

zinc oxide

CAS number: 1314-13-2

M factor (Acute) = 1

M factor (Chronic) = 1

Classification

Aquatic Acute 1 - H400

Aquatic Chronic 1 - H410

methenamine
CAS number: 100-97-0

Classification
Flam. Sol. 2 - H228
Skin Sens. 1 - H317

Titanium Dioxide

CAS number: 13463-67-7

Classification
Not Classified

2-butanone oxime

CAS number: 96-29-7

Classification

Eye Dam. 1 - H318 Skin Sens. 1 - H317 Carc. 2 - H351

Carbon Black <1%

CAS number: 1333-86-4

Classification

Not Classified

selenium <1%

CAS number: 7782-49-2

Classification

Acute Tox. 3 - H301 Acute Tox. 3 - H331 STOT RE 2 - H373 Aquatic Chronic 4 - H413

maleic anhydride <1%

CAS number: 108-31-6

Classification

Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317

2 6, DI Tert-butyl P Cresol (BHT)

CAS number: 128-37-0

M factor (Acute) = 10 M factor (Chronic) = 1

Classification

Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

The Full Text for all Hazard Statements are Displayed in Section 16.

4. First-aid measures

Description of first aid measures

General information Move affected person to fresh air at once. Get medical attention if any discomfort continues.

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Inhalation Move affected person to fresh air at once. For breathing difficulties, oxygen may be

necessary. If breathing stops, provide artificial respiration. Keep affected person warm and at

rest. Get medical attention.

Ingestion Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not

enter the lungs. Remove affected person from source of contamination. Rinse mouth thoroughly with water. Get medical attention. Keep affected person away from heat, sparks

and flames.

Skin Contact Remove affected person from source of contamination. Wash skin thoroughly with soap and

water. Get medical attention if irritation persists after washing.

Eye contact Remove affected person from source of contamination. Remove any contact lenses and open

eyelids wide apart. Rinse with water. Continue to rinse for at least 15 minutes and get medical attention. Consult a physician for specific advice. Show this Safety Data Sheet to the medical

personnel.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information The severity of the symptoms described will vary dependent on the concentration and the

length of exposure.

Inhalation Vapors may cause headache, fatigue, dizziness and nausea. Vapours may cause drowsiness

and dizziness.

Ingestion May cause stomach pain or vomiting.

Skin contact Prolonged or repeated exposure may cause severe irritation.

Eye contact Causes eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctorTreat symptomatically.

5.Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with the following media: Foam. Dry chemicals, sand, dolomite etc.

Unsuitable extinguishing

media

Water.

Special hazards arising from the substance or mixture

Flammability Class No Uniform Fire Code noted.

Specific hazards Vapors are heavier than air and may spread near ground and travel a considerable distance

to a source of ignition and flash back. Vapors may form explosive mixtures with air. Vapors

may be ignited by a spark, a hot surface or an ember.

Hazardous combustion

products

Toxic gases or vapors. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

Advice for firefighters

Protective actions during

firefighting

Move containers from fire area if it can be done without risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

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Special protective equipment

for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Wear chemical protective suit.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet. Personal precautions

Environmental precautions

Environmental precautions

The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment. Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

Methods and material for containment and cleaning up

Methods for cleaning up

Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Stop leak if safe to do so. If leakage cannot be stopped, evacuate area. Provide adequate ventilation. Cover large spillages with alcohol-resistant foam. Contain spillage with sand, earth or other suitable non-combustible material. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Containers with collected spillage must be properly labeled with correct contents and hazard symbol.

Reference to other sections

For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

7. Handling and storage

Precautions for safe handling

Usage precautions

Static electricity and formation of sparks must be prevented. Keep away from heat, sparks and open flame. Use explosion-proof electrical, ventilating and lighting equipment. Avoid spilling. Avoid breathing vapours. In case of insufficient ventilation, wear suitable respiratory equipment.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Provide eyewash station. Provide shower facilities near the workplace. Wash promptly with soap and water if skin becomes

contaminated.

Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container in a well-ventilated place. Stir Thoroughly before and

during use. Refer to SDS.

Storage class Flammable liquid storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

toluene

Long-term exposure limit (8-hour TWA): OSHA 200 ppm

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 75 mg/m³

Ceiling exposure limit: OSHA 300 ppm

4-methylpentan-2-one

Long-term exposure limit (8-hour TWA): OSHA 100 ppm 410 mg/m³ Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 82 mg/m³ Short-term exposure limit (15-minute): ACGIH 75 ppm 307 mg/m³ A3

butanone

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 590 mg/m³ Short-term exposure limit (15-minute): ACGIH 300 ppm 885 mg/m³ Long-term exposure limit (8-hour TWA): OSHA 200 ppm 590 mg/m³

xylene

Long-term exposure limit (8-hour TWA): OSHA 100 ppm 435 mg/m³ Long-term exposure limit (8-hour TWA): ACGIH 100 ppm 434 mg/m³ Short-term exposure limit (15-minute): ACGIH 150 ppm 651 mg/m³ A4

resorcinol

Long-term exposure limit (8-hour TWA): ACGIH 10 ppm 45 mg/m³ Short-term exposure limit (15-minute): ACGIH 20 ppm 90 mg/m³ A4

zinc oxide

Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³ total dust

Long-term exposure limit (8-hour TWA): ACGIH 2 mg/m³ respirable fraction

Short-term exposure limit (15-minute): ACGIH 10 mg/m³ respirable fraction

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³ fume

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³ respirable fraction

Titanium Dioxide

Long-term exposure limit (8-hour TWA): ACGIH 10 mg/m³

Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³ total dust

Carbon Black

Long-term exposure limit (8-hour TWA): OSHA 3.5 mg/m³

Long-term exposure limit (8-hour TWA): ACGIH 3 mg/m³ inhalable fraction

А3

selenium

Long-term exposure limit (8-hour TWA): ACGIH 0.2 mg/m³ as Se

maleic anhydride

Long-term exposure limit (8-hour TWA): OSHA 0.25 ppm 1 mg/m³ Long-term exposure limit (8-hour TWA): ACGIH 0.0025 ppm 0.01 mg/m³ inhalable fraction and vapor A4, RSens, DSens

2 6, DI Tert-butyl P Cresol (BHT)

Long-term exposure limit (8-hour TWA): ACGIH 2 mg/m³ inhalable fraction and vapor A4

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

RSens = Respiratory sensitizer.

DSens = Dermal sensitizer.

toluene (CAS: 108-88-3)

Immediate danger to life and health

500 ppm

4-methylpentan-2-one (CAS: 108-10-1)

Immediate danger to life and health

500 ppm

butanone (CAS: 78-93-3)

Immediate danger to life and health

3000 ppm

zinc oxide (CAS: 1314-13-2)

Immediate danger to life and health

500 mg/m³

Titanium Dioxide (CAS: 13463-67-7)

Immediate danger to life and health

5000 mg/m³

Amorphous Silica (CAS: 7631-86-9)

Immediate danger to life and health

3000 mg/m³

Carbon Black (CAS: 1333-86-4)

Immediate danger to life and health

1750 mg/m³

selenium (CAS: 7782-49-2)

Immediate danger to life

1 mg/m³

and health

maleic anhydride (CAS: 108-31-6)

Immediate danger to life and health

10 mg/m³

Exposure controls

Protective equipment











Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Ensure that the direction of airflow is clearly away from the worker. Observe any occupational exposure limits for the product or ingredients. Avoid inhalation of vapors. Ensure operatives are trained to minimize exposure.

Eye/face protection

Wear chemical splash goggles.

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Hand protection It is recommended that gloves are made of the following material: Rubber (natural, latex).

Polyvinyl chloride (PVC). Neoprene. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist

degradation.

Other skin and body

protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or

prolonged vapor contact.

Hygiene measures Do not smoke in work area. Contaminated clothing should be placed in a closed container for

disposal or decontamination. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash hands and any other contaminated areas of the body with soap and

water before leaving the work site.

Respiratory protection Respiratory protection complying with an approved standard should be worn if a risk

assessment indicates inhalation of contaminants is possible. When spraying, wear a suitable supplied-air respirator. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type A2. Check that the

respirator fits tightly and the filter is changed regularly.

Environmental exposure

controls

Store in a demarcated bunded area to prevent release to drains and/or watercourses. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Liquid.

Color Grey.

Odor Characteristic. Solvent.

Melting point <-80°C

Initial boiling point and range >78°C @ 760 mm Hg

Flash point 2°C CC (Closed cup).

Evaporation rate 0.8 (butyl acetate = 1)

Vapour pressure <50 mm Hg @ 25°C

Vapour density (Air=1) >1

Relative density 0.95 @ 25°C

Solubility(ies) Miscible with the following materials: Organic solvents.

Auto-ignition temperature >250°C

Other information None.

Refractive index Not known.

Volatile organic compound No information available.

10. Stability and reactivity

ReactivityThe reactivity data for this product will be typical of those for the following class of materials:

Hydrocarbons. Flammable/combustible materials.

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Stability Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous

reactions

None known.

Avoid heat.

Conditions to avoid

Materials to avoid Avoid contact with strong oxidizing agents. Avoid contact with strong reducing agents.

Hazardous decomposition

products

Heating may generate flammable vapors. Heating may generate the following products:

Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

11. Toxicological information

Information on toxicological effects

Toxicological effects No information available.

Acute toxicity - oral

ATE oral (mg/kg) 7,352.94

Acute toxicity - dermal

ATE dermal (mg/kg) 13,414.63

Acute toxicity - inhalation

ATE inhalation (gases ppm) 63,380.28

ATE inhalation (vapours mg/l) 102.8

ATE inhalation (dusts/mists

mg/l)

83.33

Specific target organ toxicity - single exposure

Target organs Respiratory system, lungs Mucous membranes

Specific target organ toxicity - repeated exposure

Target organs Respiratory system, lungs Mucous membranes

Aspiration hazard

Aspiration hazard May be harmful if swallowed and enters airways.

accumulation of hazardous vapor concentrations.

Inhalation Harmful by inhalation. Gas or vapor in high concentrations may irritate the respiratory system.

Vapors may cause headache, fatigue, dizziness and nausea.

Ingestion May cause internal injury. Nausea, vomiting.

Skin Contact Product has a defatting effect on skin. Repeated exposure may cause skin dryness or

cracking. Eczema/contact dermatitis.

Eye contact Irritation of eyes and mucous membranes.

Acute and chronic health

hazards

This product may cause skin and eye irritation. Prolonged inhalation of high concentrations

may damage respiratory system.

Route of entry Inhalation Ingestion Skin absorption Skin and/or eye contact

Target Organs Respiratory system, lungs Mucous membranes

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Medical Symptoms Symptoms overexposure to vapor may include the following: Coughing, chest

tightness, feeling of chest pressure. Difficulty in breathing. Dizziness. Symptoms following

overexposure may include the following: Dry skin.

12. Ecological Information

Ecotoxicity The product contains a substance which may cause long-term adverse effects in the aquatic

environment.

Persistence and degradability

Persistence and degradability No data available.

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all

surfaces.

Results of PBT and vPvB assessment

Results of PBT and vPvB

assessment

This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects Not known.

13. Disposal considerations

Waste treatment methods

General information The generation of waste should be minimized or avoided wherever possible. Dispose of waste

to licensed waste disposal site in accordance with the requirements of the local Waste

Disposal Authority.

Disposal methods Dispose of contents/container in accordance with local regulations.

14. Transport information

UN Number

UN No. (DOT) 1133

UN No. (IMDG) 1133

UN No. (ICAO) 1133

UN proper shipping name

Proper shipping name (DOT) ADHESIVES

Proper shipping name

ADHESIVES (CONTAINS Solvent naphtha (petroleum), light arom., resorcinol)

(IMDG)

Proper shipping name (ICAO) ADHESIVES

Transport hazard class(es)

IMDG Class 3

ICAO class/division 3

Transport labels



Packing group

DOT pack group II
IMDG packing group II
ICAO packing group II

Environmental hazards

Environmentally Hazardous Substance



Special precautions for user

EmS F-E, S-D

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

Inventories

US - TSCA

All the ingredients are listed or exempt.

16. Other information

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Section 15 Updated US/Canada Company Logo updated

Issued by HS&E Manager.

Revision date 3/31/2016

Revision 3

Supersedes date 10/7/2015

SDS No. 4632

SDS status Approved.

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Hazard statements in full H225 Highly flammable liquid and vapor.

H226 Flammable liquid and vapor.

H228 Flammable solid.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H361d Suspected of damaging the unborn child.

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.

H413 May cause long lasting harmful effects to aquatic life.

STIR STIR BEFORE USE

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.