

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.08.2021

Version number 11 (replaces version 10)

Revision: 03.08.2021

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

- 1.1 Product identifier
- Trade name: **KEMPEROL LF light grey**
- UFI: 2UD8-TOP2-6007-E3FG
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
  - Identified use: intended for professional use only!
- Application of the substance / the mixture: Waterproofing
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  - KEMPER SYSTEM LTD
  - Kemper House
  - 30 Kingsland Grange
  - Warrington
  - WA1 4RW
  - www.kempersystem.co.uk
  - enquiries@kempersystem.co.uk
  - phone: +44 (0)1925 445532
  - fax: +44 (0)1925 575096
- Further information obtainable from: research & development
- 1.4 Emergency telephone number:
  - Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen
  - Langenbeckstraße 1; Gebäude 601; 55131 Mainz
  - Tel. Nr.: +49 (0)6131 / 19 24 0
  - Universitätsmedizin der Johannes Gutenberg-Universität Mainz

## SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  - Eye Irrit. 2 H319 Causes serious eye 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
- Labelling according to Regulation (EC) No 1272/2008
  - The product is classified and labelled according to the CLP regulation.
- Hazard pictograms
 



GHS07
- Signal word: Warning
- Hazard-determining components of labelling:
  - Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
  - Diocetylbinbis(acetylacetonate)
  - benzotriazole derivatives
- Hazard statements
  - H319 Causes serious eye irritation.
  - H317 May cause an allergic skin reaction.
  - H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements
  - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P273 Avoid release to the environment.
  - P280 Wear protective gloves / 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.
- Additional information:
  - EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

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### SECTION 3: Composition/information on ingredients

## - 3.2 Mixtures

## - Description:

Mixture: consisting of the following components.

## - Dangerous components:

CAS: 2530-83-8 EINECS: 219-784-2 Reg.nr.: 01-2119513212-58	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane Eye Dam. 1, H318	≥2.5-<3%
CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17	titanium dioxide Carc. 2, H351	0.5-2.5%
CAS: 2768-02-7 EINECS: 220-449-8 Reg.nr.: 01-2119513215-52	trimethoxyvinylsilane Flam. Liq. 3, H226; Acute Tox. 4, H332	0.5-2.5%
CAS: 54068-28-9 ELINCS: 483-270-6 Reg.nr.: 01-0000020199-67	Diocetylbinbis(acetylacetonate) STOT SE 2, H371; Skin Sens. 1, H317	≥0.5-<1%
CAS: 1065336-91-5 EC number: 915-687-0 Reg.nr.: 01-2119491304-40	Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate Repr. 2, H361f; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1A, H317	≥0.5-<1%
ELINCS: 400-830-7 Index number: 607-176-00-3 Reg.nr.: 01-0000015075-76	benzotriazole derivatives Aquatic Chronic 2, H411; Skin Sens. 1, H317	≥0.5-<1%

## - Additional information:

For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

## - 4.1 Description of first aid measures

## - General information:

Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
Do not leave affected persons unattended.  
Personal protection for the First Aider.  
Take affected persons out of danger area and lay down.

## - After inhalation:

In case of unconsciousness place patient stably in side position for transportation.  
Supply fresh air; consult doctor in case of complaints.

## - After skin contact:

Immediately wash with water and soap and rinse thoroughly.  
Seek medical treatment in case of complaints.

## - After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.  
Protect unharmed eye.

## - After swallowing:

If symptoms persist consult doctor.

## - 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:

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire extinguishing methods suitable to surrounding conditions.

## - For safety reasons unsuitable extinguishing agents:

Water with full jet

## - 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

## - 5.3 Advice for firefighters

## - Protective equipment:

Do not inhale explosion gases or combustion gases.

## - Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.  
Avoid contact with skin and eyes  
Ensure adequate ventilation
- **6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.  
Prevent from spreading (e.g. by damming-in or oil barriers).  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Store in cool, dry place in tightly closed receptacles.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **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:**

Protect from frost.  
Store in dry conditions.  
Keep container tightly sealed.  
Recommended storage temperature: 5-30 °C
- **Storage class:**

12
- **7.3 Specific end use(s)**

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
- **Additional information:**

The lists valid during the making were used as basis.
- **8.2 Exposure controls**
  - **Appropriate engineering controls**

No further data; see item 7.
  - **Individual protection measures, such as 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.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**

When used properly and under normal conditions, breathing protection is not required.  
Use suitable respiratory protective device in case of insufficient ventilation.  
Filter A/P2  
Respiratory protection - Gas filters and combination filters according to (DIN EN 141)  
Provide thorough ventilation during and after processing / curing as methanol is split off during curing.

- **Hand protection**



Protective gloves

Check protective gloves prior to each use for their proper condition.  
Only use chemical-protective gloves with CE-labelling of category III.  
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  
After use of gloves apply skin-cleaning agents and skin cosmetics.

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**- Material of gloves**

Recommended materials:

Butyl rubber, BR

Recommended thickness of the material:  $\geq 0.5$  mm

Penetration time (min.):  $< 480$

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.

**- Penetration time of glove material**

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

**- As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.1$  mm

Penetration time (min.):  $< 10$

**- Eye/face protection**



Tightly sealed goggles

**- Body protection:**

Protective goggles and facial protection - Classification according to EN 166 protective clothing (EN 13034)

## SECTION 9: Physical and chemical properties

**- 9.1 Information on basic physical and chemical properties**

**- General Information**

- Colour:

According to product specification

- Odour:

Characteristic

- Odour threshold:

Not determined.

- Melting point/freezing point:

Undetermined.

- Boiling point or initial boiling point and boiling range

Undetermined.

- Flammability

Not applicable.

- Lower and upper explosion limit

- Lower:

Not determined.

- Upper:

Not determined.

- Flash point:

88 °C

- Auto-ignition temperature:

Product is not selfigniting.

- Decomposition temperature:

Not determined.

- pH

Not determined.

- Viscosity:

- Kinematic viscosity at 20 °C

4,200 mm<sup>2</sup>/s

- Dynamic:

Not determined.

- Solubility

- water:

Not miscible or difficult to mix.

- Partition coefficient n-octanol/water (log value)

Not determined.

- Density and/or relative density

- Density at 20 °C:

1.3 g/cm<sup>3</sup>

- Relative density

Not determined.

- Vapour density

Not determined.

**- 9.2 Other information**

- Appearance:

- Form:

Fluid

- Important information on protection of health and environment, and on safety.

- Explosive properties:

Product does not present an explosion hazard.

- Solvent content:

- Organic solvents:

0.0 %

- VOC (EC)

0.30 %

- Change in condition

- Evaporation rate

Not determined.

**- Information with regard to physical hazard classes**

- Explosives

Void

- Flammable gases

Void

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- Aerosols	Void
- Oxidising gases	Void
- Gases under pressure	Void
- Flammable liquids	Void
- Flammable solids	Void
- Self-reactive substances and mixtures	Void
- Pyrophoric liquids	Void
- Pyrophoric solids	Void
- Self-heating substances and mixtures	Void
- Substances and mixtures, which emit flammable gases in contact with water	Void
- Oxidising liquids	Void
- Oxidising solids	Void
- Organic peroxides	Void
- Corrosive to metals	Void
- Desensitised explosives	Void

## SECTION 10: Stability and reactivity

- 10.1 Reactivity	No further relevant information available.
- 10.2 Chemical stability	
- Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions	No dangerous reactions known.
- 10.4 Conditions to avoid	No further relevant information available.
- 10.5 Incompatible materials:	No further relevant information available.
- 10.6 Hazardous decomposition products:	Hydrolysed to methanol

## SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008	
- Acute toxicity	Based on available data, the classification criteria are not met.

### - LD/LC50 values relevant for classification:

#### 2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Oral	LD50	8,025 mg/kg (rat)
Dermal	LD50	4,250 mg/kg (rat)

#### 2768-02-7 trimethoxyvinylsilane

Oral	LD50	7,340-7,460 mg/kg (rat) (OECD 401)
Dermal	LD50	3,460-4,000 mg/kg (rabbit) (OECD 402)

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Inhalative	LC50/4 h	16.79 mg/l (rat)
<b>54068-28-9 Diocetyl tinbis(acetylacetonate)</b>		
Oral	LD50	2,500 mg/kg (rat) (Acute Toxic Class Method)
Dermal	LD50	>2,000 mg/kg (rat) (Akute dermale Toxizität)
<b>1065336-91-5 Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate</b>		
Oral	LD50	3,230 mg/kg (rat) (OECD-guideline 423)
Dermal	LD50	>3,170 mg/kg (rat) (OECD Guideline 402 (Acute Dermal Toxicity))
<b>benzotriazole derivatives</b>		
Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rat) (OECD 402)
- <b>Skin corrosion/irritation</b> Based on available data, the classification criteria are not met.		
- <b>Serious eye damage/irritation</b> Causes serious eye irritation.		
- <b>Respiratory or skin sensitisation</b> May cause an allergic skin reaction.		
- <b>Germ cell mutagenicity</b> Based on available data, the classification criteria are not met.		
- <b>Carcinogenicity</b> Based on available data, the classification criteria are not met.		
- <b>Reproductive toxicity</b> Based on available data, the classification criteria are not met.		
- <b>STOT-single exposure</b> Based on available data, the classification criteria are not met.		
- <b>STOT-repeated exposure</b> Based on available data, the classification criteria are not met.		
- <b>Aspiration hazard</b> Based on available data, the classification criteria are not met.		
- <b>11.2 Information on other hazards</b>		
- <b>Endocrine disrupting properties</b>		
None of the ingredients is listed.		

## SECTION 12: Ecological information

### - 12.1 Toxicity

#### - Aquatic toxicity:

<b>2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane</b>	
LC50	55 mg/l (Cyprinus Carpio) (96h)
EC50	119 mg/l (anabaena flos-aquae) (7d)
EC10	40 mg/l (anabaena flos-aquae) (7d)
LC 50	~324 mg/l (simocephalus vetulus) (48h)
LOEC	>100 mg/l (Daphnia magna) (21d; OECD 211)
NOEC	<50 mg/l (anabaena flos-aquae) (7d) ≥100 mg/l (Daphnia magna) (21d; OECD 211)
<b>2768-02-7 trimethoxyvinylsilane</b>	
NOEC	28 mg/kg (Daphnia magna) (21d)
EC50	>100 mg/l (Daphnia magna) (OECD 202)
EC50	297.2 mg/l (Daphnia magna) (24h)
EC10	1.1 mg/l (Pseudomonas putida) (3h; acute) 32 mg/l (Selenastrum capricornutum) (7d; acute)
EC50	>100 mg/l (DESMODESMUS SUBSPICATUS) (72h; Growth Inhibition Test; acute) >100 mg/l (daphnia) (48h; Watery twigs acute) 168.7 mg/l (Daphnia magna) (48h)
EC50	210 mg/l (Selenastrum capricornutum) (7d; static acute)
LC 50	191 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (96h acute)
LC50	>100 mg/l (Brachydanio rerio (Ricefish)) (96h; static acute)
NOEC	28 mg/l (Daphnia magna) (21d)
NOEC	25 mg/l (Selenastrum capricornutum) (7d; acute)
<b>54068-28-9 Diocetyl tinbis(acetylacetonate)</b>	
EC50	58.6 mg/l (Daphnia magna) (48h; static)
EC50	300 mg/l (Scenedesmus subspicatus) (24h; static)
LC 50	86 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (96h, static)
<b>1065336-91-5 Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate</b>	
EC50	0.42 mg/l (ALGAE) (OECD 201)
LC50	0.9 mg/l /72 h (fish) (OECD 203 (96 hr))

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**benzotriazole derivatives**

NOEC	100 mg/kg (Eisenia fetida/foetida) (56d; OECD 222)
LC50/96 h	2.8 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (OECD 203; ISO 7346; 84/449/EWG,C1 stat.)
EC50	>1,000 mg/l (Belebtschlamm) (3h; OECD 209)
EC50	4 mg/l (Daphnia magna) (48h;)
EC10	10 mg/l (Pseudokirchneriella subcapitata) (72h; OECD 201)
EC50	>100 mg/l (Pseudokirchneriella subcapitata) (72h; OECD 201)
NOEC	0.78 mg/l (Daphnia magna) (21d; OECD 202, Part 2)

- **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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:** Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Disposal according to official regulations

**- European waste catalogue**

08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances
15 01 10*	packaging containing residues of or contaminated by hazardous substances
17 02 03	plastic

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

**SECTION 14: Transport information**

- **14.1 UN number or ID number**
- **ADR, ADN, IMDG, IATA** Void
- **14.2 UN proper shipping name**
- **ADR, ADN, IMDG, IATA** Void
- **14.3 Transport hazard class(es)**
- **ADR, ADN, IMDG, IATA**
- **Class** Void
- **14.4 Packing group**
- **ADR, IMDG, IATA** Void
- **14.5 Environmental hazards:** Not applicable.
- **14.6 Special precautions for user** Not applicable.
- **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.
- **UN "Model Regulation":** Void

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

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- **REGULATION (EC) No 1907/2006 ANNEX XVII**

Conditions of restriction: 3

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- **REGULATION (EU) 2019/1148**- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

- **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.

The safety data sheet issued is also compliant with the regulation Annex I of Regulation (EU) no. 453/2010 and Annex II of Regulation (EU) no. 2020/878.

#### - Relevant phrases

H226 Flammable liquid and vapour.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H332 Harmful if inhaled.  
 H351 Suspected of causing cancer.  
 H361f Suspected of damaging fertility.  
 H371 May cause damage to organs.  
 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.

#### - Department issuing SDS:

research &amp; development

#### - Contact:

research &amp; development

#### - Date of previous version:

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#### - Version number of previous version:

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#### - Abbreviations and acronyms:

ADR: Accord relatif au transport international 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)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Flam. Liq. 3: Flammable liquids – Category 3  
 Acute Tox. 4: Acute toxicity – Category 4  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
 Skin Sens. 1: Skin sensitisation – Category 1  
 Skin Sens. 1A: Skin sensitisation – Category 1A  
 Carc. 2: Carcinogenicity – Category 2  
 Repr. 2: Reproductive toxicity – Category 2  
 STOT SE 2: Specific target organ toxicity (single exposure) – Category 2  
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1  
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

#### - Sources

- [www.echa.europa.eu](http://www.echa.europa.eu)- [www.baua.de](http://www.baua.de)

IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance:

- [www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp](http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp)- [www.dguv.de/ifa/gestis/gestis-dnel-liste](http://www.dguv.de/ifa/gestis/gestis-dnel-liste)

- \* Data compared to the previous version altered.