

**Safety data sheet**  
according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.01.2026

Version number 1

Revision: 21.08.2025

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

- **1.1 Product identifier**
  - **Trade name: EP310N Komp. A**
  - **Article number: 1-EP310N**
  - **UFI: QKW5-1YTH-N5NU-Y2FD**
  - **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  - **Product category PC1 Adhesives, sealants**
  - **Application of the substance / the mixture Two-component adhesive**
  - **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
HOTTINGER BRUDEL & KJAER UK LTD  
Advanced Manufacturing Park Technology Centre  
Brunel Way, Catcliffe, Rotherham  
South Yorkshire, S60 5WG  
United Kingdom  
Phone: +44 (0) 1145 512230  
Email: info@uk.hbm.com
  - **Informing department:**  
Tel. +49(0)6131 19240  
EMail support-esa@hbkworl.com
  - **1.4 Emergency telephone number:**  
Gift-Informationszentrum Nord, Göttingen  
Poison Information Center, Göttingen  
Tel.: +49 (0)551 19240  
(German and English only)
- United Kingdom:  
National Poisons Information Service  
Emergency number: +44 844 892 0111
- Poisons Information Centre of Ireland:  
+353 1 837 9964 for medical professionals  
+353 1 809 2166 for public inquiries  
CHEMTREC: +44 20 3807 3798 (24h emergency call).  
Outside continental USA please call CHEMTREC at +1-703-527-3887 (R-calls are accepted).

**SECTION 2: Hazards identification**

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



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

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GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H336 May cause drowsiness or dizziness.

### 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



GHS08

#### Signal word Danger

#### Hazard-determining components of labelling:

benzene-1,2:4,5-tetracarboxylic dianhydride  
acetone

#### Hazard statements

H225 Highly flammable liquid and vapour.

H318 Causes serious eye damage.

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

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

#### Precautionary statements

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

P261 Avoid breathing mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.

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

#### Additional information:

Please refer to further labelling elements in section 15 of this safety data sheet, if applicable.

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

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- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable
- **Determination of endocrine-disrupting properties**  
The product does not contain substances with endocrine disrupting properties.

### SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture consisting of the following components.

- **Dangerous components:**

CAS: 67-64-1 EINECS: 200-662-2 Index number: 606-001-00-8 Reg.nr.: 01-2119471330-49-X	acetone ☠ Flam. Liq. 2, H225; ☠ Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	50 - 100%
CAS: 89-32-7 EINECS: 201-898-9 Index number: 607-098-00-X	benzene-1,2:4,5-tetracarboxylic dianhydride ☠ Resp. Sens. 1, H334; ☠ Eye Dam. 1, H318; ☠ Skin Sens. 1, H317	≥ 3 - ≤ 10%

- **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**  
Personal protection for the First Aider.  
If symptoms occur or in case of doubt consult a doctor.
- **After inhalation**  
Supply fresh air and call for doctor for safety reasons.  
In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact**  
Instantly wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.  
Remove contact lenses if possible.  
Do not rub eyes dry, the mechanical stress can cause additional cornea damages.  
Use eye protection.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
In case of persistent symptoms 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.

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### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
Extinguishing powder, foam or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents**  
Water with a full water jet.  
The use of a water jet may cause the fire to spread by splashing the burning product.
- **5.2 Special hazards arising from the substance or mixture**  
During incomplete combustion carbon monoxide can be formed.  
Inhalation of combustion gases may cause serious health hazards.  
Formation of flammable mixtures of vapours with air possible.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**  
If possible without risk, move containers from fire area.  
Use water to keep fire exposed containers cool.  
Burning liquids can be extinguished by diluting with water.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **For non-emergency personnel** Avoid contact with the product.
- **For emergency responders** Put on suitable personal protective equipment.
- **6.2 Environmental precautions:** Do not allow to enter drainage system, ground/soil and water bodies.
- **6.3 Methods and material for containment and cleaning up:**  
Dispose of contaminated material as waste according to section 13.  
Absorb with liquid-binding material (sand, diatomite, universal binders) and disposal in suitable containers.
- **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 information on disposal.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**  
Only store in suitable containers (e.g. containers authorised under dangerous goods legislation).
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**  
Keep container tightly closed and store in a dry, cool and well ventilated place.  
Protect from heat and direct sunlight.

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· **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**

WEL: workplace exposure limit

OEL: Occupational Exposure Limit

#### 67-64-1 acetone

IOELV (European Union)	Long-term value: 1210 mg/m <sup>3</sup> , 500 ppm
WEL (Great Britain)	Short-term value: 3620 mg/m <sup>3</sup> , 1500 ppm Long-term value: 1210 mg/m <sup>3</sup> , 500 ppm

- **DNELs**

#### 67-64-1 acetone

Oral	DNEL (consumer, long-term, systemic)	62 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	186 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	62 mg/kg bw/day (human)
Inhalative	DNEL (worker, long-term, systemic)	1,210 mg/m <sup>3</sup> (human)
	DNEL (consumer, long-term, systemic)	200 mg/m <sup>3</sup> (human)
	DNEL (worker, short-term, local)	2,420 mg/m <sup>3</sup> (human)

- **PNECs**

#### 67-64-1 acetone

PNEC aqua (fresh water)	10.6 mg/L (.)
PNEC Water (marine water)	1.06 mg/L (.)
PNEC STP - Sewage Treatment Plant	100 mg/L (.)
PNEC soil	29.5 mg/kg soil dw (.)
PNEC sediment (fresh water)	30.4 mg/kg sedim. dw (.)
PNEC sediment (marine water)	3.04 mg/kg sedim. dw (.)
PNEC Water (sporadic release)	21 mg/L (.)

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **8.2 Exposure controls**
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.

Do not eat, drink or smoke while working.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Wash contaminated clothing before re-use.

- **Breathing equipment:**

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

- **Hand protection**



Protective gloves.

Only use chemical-protective gloves with CE-labelling of category III (EN 374).

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

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.

Butyl rubber, BR

Recommended material thickness: 0.3 mm, breakthrough time: 480 min.

Natural rubber, NR

Recommended material thickness: 0.5 mm, breakthrough time: 10 min.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye/face protection**



Tightly sealed safety glasses.



Face protection

### SECTION 9: Physical and chemical properties

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

- **General Information**

- **Physical state**

Liquid

- **Colour:**

Yellowish

- **Odour:**

Acetone-like

- **Odour threshold:**

Not determined

- **Melting point/freezing point:**

Not determined

- **Boiling point or initial boiling point and boiling range**

56.1 °C

- **Flammability**

Not determined

- **Lower and upper explosion limit**

- **Lower:**

Not determined

- **Upper:**

Not determined

- **Flash point:**

< -20 °C

- **Auto-ignition temperature:**

Product is not selfigniting.

- **Decomposition temperature:**

Not determined

- **SADT**

- **pH**

Not applicable

- **Viscosity:**

- **Kinematic viscosity**

Not applicable

- **dynamic:**

Not applicable

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- **Solubility**
- **Water:** Soluble
- **Partition coefficient n-octanol/water (log value)** Not determined
- **Vapour pressure:** Not applicable
- **Density and/or relative density**
- **Density at 20 °C** 0.82 g/cm<sup>3</sup>
- **Relative density** Not determined
- **Vapour density** Not applicable
- **Particle characteristics** No further details.

- **9.2 Other information**
- **Appearance:**
- **Form:** Fluid
- **Important information on protection of health and environment, and on safety.**
- **Self-inflammability:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive.
- **Solvent content:**
- **Organic solvents:** 92.1 %
- **Change in condition**
- **Evaporation rate** Not applicable.

- **Information with regard to physical hazard classes**
- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Highly flammable liquid and vapour.
- **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** No statement can be made on this point due to a lack of studies on the product.
- **Desensitised explosives** Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Information on the shelf life** The product is stable.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known

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- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
None in case of intended use and storage in compliance with instructions.

### 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 that are relevant for classification:**

#### 67-64-1 acetone

Oral	LD50	5,800 mg/kg (Rat)
Dermal	LD50	> 7,426 mg/kg (guinea pig) (21 CFR 191.10) > 7,426 mg/kg (rabbit) (21 CFR 191.10)
Inhalative	LC50	132 mg/l/3h (Rat)

#### 89-32-7 benzene-1,2:4,5-tetracarboxylic dianhydride

Oral	LD50	2,400 mg/kg (mouse)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**

- **Repeated dose toxicity**

#### 67-64-1 acetone

Oral	NOAEL (90d)	3,100 mg/kg bw/day (Rat) (OECD 408)
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- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

#### 67-64-1 acetone

EC50	> 10,000 mg/l/24h (Daphnia magna)
LC50 (dynamic)	8,120 mg/l/96h (Pimephales promelas) (OECD 203)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** There are no data available about the preparation.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **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:**  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
The waste code numbers mentioned are recommendations based on the probable use of the product.

- **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances
07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 07 00	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 04*	other organic solvents, washing liquids and mother liquors
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

- **Uncleaned packagings:**
- **Recommendation:**  
Dispose of packaging according to regulations on the disposal of packagings.  
Non contaminated packagings can be used for recycling.  
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### SECTION 14: Transport information

- **14.1 UN number or ID number**
- **ADR/RID, IMDG, IATA** UN1090
- **14.2 UN proper shipping name**
- **ADR/RID** 1090 ACETONE mixture
- **IMDG, IATA** ACETONE mixture

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· **14.3 Transport hazard class(es)**

· **ADR/RID**



· **Class** 3 (F1) Flammable liquids.  
 · **Label** 3

· **IMDG**



· **Class** 3 Flammable liquids.  
 · **Label** 3

· **IATA**



· **Class** 3 Flammable liquids.  
 Not Restricted.  
 · **Label** 3

· **14.4 Packing group**

· **ADR/RID, IMDG, IATA** II

· **14.5 Environmental hazards:** Not applicable

· **14.6 Special precautions for user** Warning: Flammable liquids.

· **Kemler Number:** 33

· **EMS Number:** F-E,S-D

· **Stowage Category** E

· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable

· **Transport/Additional information:**

· **Quantity limitations** On passenger aircraft/rail: 5 L  
 On cargo aircraft only: 60 L

· **ADR/RID**

· **Limited quantities (LQ)** 1L

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

· **Transport category** 2

· **Tunnel restriction code** D/E

· **IMDG**

· **Limited quantities (LQ)** 1L

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- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>· <b>Excepted quantities (EQ)</b></li> </ul> | Code: E2<br>Maximum net quantity per inner packaging: 30 g<br>Maximum net quantity per outer packaging: 500 g |
| <ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>   | UN 1090 ACETONE MIXTURE, 3, II  |

### 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.
- **REGULATION (EC) No 1907/2006 ANNEX XVII**  
Taking into account the intended use as specified in section 1, the relevant entries from Annex XVII are carried out.  
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**

67-64-1	acetone	
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- **Regulation (EC) No 273/2004 on drug precursors**

67-64-1	acetone	3
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- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

67-64-1	acetone	3
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- **National regulations**
- **Water hazard class:**
- **Substances of very high concern (SVHC) according to REACH, Article 57**  
None of the ingredients is contained.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.  
This safety data sheet meets the requirements of Regulation (EU) 2015/830 and 2020/878 amending Annex II of Regulation (EC) 1907/2006.

- **Relevant phrases**  
The phrases specified here are no labelling elements for the product but repeat the properties of the ingredients from section 3.  
H225 Highly flammable liquid and vapour.

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- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H336 May cause drowsiness or dizziness.
- EUH066 Repeated exposure may cause skin dryness or cracking.

· **Classification according to Regulation (EC) No 1272/2008** Calculation method

· **Department issuing data specification sheet:**

► **DEKRA** This Safety Data Sheet has been drawn up in cooperation with:  
 DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,  
 phone: (+49) 511 42079 - 0, reach@dekra.com.

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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)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- 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
- Flam. Liq. 2: Flammable liquids – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Resp. Sens. 1: Respiratory sensitisation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· \* **Data compared to the previous version altered.**

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