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

1.1 Product identifier

· Trade name: illbruck PU010
· MSDS code: A-I-PU010

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:
  Tremco CPG Netherlands B.V.
  Vlietskade 1032, 4241 WC Arkel
  T: +31 (0) 183568000, F: +31 (0) 183568100
  msds@cpg-europe.com

· Further information obtainable from:
  Tremco CPG UK Ltd
  Coupland Road, Hindley Green, Wigan, WN2 4HT
  T: +44 (0) 1942251400, F: +44 (0) 1942251410
  www.cpg-europe.com, info.uk@cpg-europe.com

1.4 Emergency telephone number:

During office hours tel.: +44 (0) 1942251400. At all other times it is recommended to call NHS 111 (England/Wales/Scotland), your local GP/pharmacist (NI), 01 809 2166 (ROI), or otherwise to contact a doctor.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 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.
Carc. 2 H351 Suspected of causing cancer.
STOT SE 3 H335 May cause respiratory irritation.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.
Trade name: illbruck PU010

· Hazard pictograms

GHS02 GHS07 GHS08

· Signal word Danger

· Contains:
diphenylmethane-diisocyanate, isomers and homologues

· Hazard statements
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P284 [In case of inadequate ventilation] wear respiratory protection.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

· Supplemental information:
EUH204 Contains isocyanates. May produce an allergic reaction.
As from 24 August 2023 adequate training is required before industrial or professional use.

· 2.3 Other hazards

· Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Description: Active substance with propellant

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th>diphenylmethane-diisocyanate, isomers and homologues</th>
<th>30-&lt;50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 9016-87-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC number: 618-498-9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Safety data sheet
acc. to (EC) No 1907/2006, as amended by UK SI 2019/758

Trade name: illbruck PU010

| CAS: 1244733-77-4 | tris(2-chloro-1-methylethyl)phosphate | Acute Tox. 4, H302 | 10-<20% |
| CAS: 115-10-6 | dimethyl ether | Flam. Gas 1A, H220; Press. Gas (Comp.), H280 | 5-<10% |
| CAS: 75-28-5 | isobutane | Flam. Gas 1A, H220; Press. Gas (Comp.), H280 | 1-<5% |
| EC number: 926-564-6 | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol, propoxylated | Acute Tox. 4, H302 | 1-<5% |
| CAS: 74-98-6 | propane | Flam. Gas 1A, H220; Press. Gas (Comp.), H280 | 1-<5% |

SVHC -
Additional information:
For the wording of the listed hazard phrases refer to section 16.
While curing the following substances are formed and released by a reaction with atmospheric humidity:
Carbon dioxide (CO2)

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Take affected persons out of danger area and lay down.

After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact:
If symptoms persist consult doctor.
Immediately wash with water and soap and rinse thoroughly.
Immediately remove all soiled and contaminated clothing

After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:
If symptoms persist consult doctor.

Information for doctor: No further relevant information available.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions
Nausea

Hazards No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.
SECTION 5: Firefighting measures

5.1 Extinguishing media
· Suitable extinguishing agents:
  CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture
Carbon monoxide (CO)
Carbon dioxide (CO2)
Nitrogen oxides (NOx)
Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen cyanide (HCN)

5.3 Advice for firefighters
· Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:
Dispose of contaminated material as waste according to Section 13.
Ensure adequate ventilation.
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
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Information about fire - and explosion protection:
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
The usual precautionary measures are to be adhered to when handling chemicals.

7.2 Conditions for safe storage, including any incompatibilities
· Storage:
  · Requirements to be met by storerooms and receptacles:
    Observe official regulations on storing packagings with pressurised containers.
  · Information about storage in one common storage facility: Store away from water.
Trade name: illbruck PU010

- Further information about storage conditions:
  Store in cool, dry conditions in well sealed receptacles.
  Protect from heat and direct sunlight.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters
- 8.2 Additional information about design of technical facilities: No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Sen; as -NCO</td>
</tr>
<tr>
<td>CAS: 115-10-6 dimethyl ether</td>
</tr>
<tr>
<td>WEL</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

PNECs

<table>
<thead>
<tr>
<th>CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEC</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>CAS: 1244733-77-4 tris(2-chloro-1-methylethyl)phosphate</td>
</tr>
<tr>
<td>PNEC</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>PNEC</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>CAS: 115-10-6 dimethyl ether</td>
</tr>
<tr>
<td>PNEC</td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>PNEC</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol, propoxylated

PNEC 10 mg/L (sewage treatment plant)

- Additional Occupational Exposure Limit Values for possible hazards during processing:
  Carbon dioxide (CO2)
- Additional information: The lists valid during the making were used as basis.
· **8.2 Exposure controls**
  · **Personal protective equipment:**
  · **General protective and hygienic measures:**
    The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.
  · **Respiratory protection:**
    In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used. For further guidance, please refer to HSE HSG53 "Respiratory Protective Equipment at work - A Practical Guide".
  · **Protection of hands:**
    - Protective gloves
      
      **Protective gloves**
      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**
        Nitrile rubber, NBR
        Recommended thickness of the material: \( \geq 0.4 \text{ mm} \)
        Butyl rubber, BR
        Recommended thickness of the material: \( \geq 0.7 \text{ mm} \)
      
      **Penetration time of glove material**
      For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 16523-1:2015: Level 6).
  · **Eye protection:**
    - Tightly sealed goggles
      
      **Tightly sealed goggles**
**Body protection:**

Protective work clothing

---

**SECTION 9: Physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9.1 Information on basic physical and chemical properties</strong></td>
<td></td>
</tr>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>According to product specification</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>pH-value:</strong></td>
<td>Mixture reacts violently with water.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not applicable, as aerosol.</td>
</tr>
<tr>
<td></td>
<td>Undetermined.</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>-97 °C</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Explosive properties:</strong></td>
<td>Product is not explosive. However, formation of explosive air/vapour mixtures are possible.</td>
</tr>
<tr>
<td>Explosion limits:</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>3 Vol %</td>
</tr>
<tr>
<td>Upper</td>
<td>18.6 Vol %</td>
</tr>
<tr>
<td><strong>Vapour pressure at 20 °C:</strong></td>
<td>0 hPa</td>
</tr>
<tr>
<td><strong>Density at 20 °C:</strong></td>
<td>1.03 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with water:</strong></td>
<td>Immiscible / difficult to mix.</td>
</tr>
<tr>
<td><strong>Partition coefficient:</strong></td>
<td></td>
</tr>
<tr>
<td>n-octanol/water</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

(Contd. on page 8)
Trade name: illbruck PU010

- Solvent content:
  - VOC (EU): 180.3 g/l
  - VOC (EC): 17.50%

- 9.2 Other information
  No further relevant information available.

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
  No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects

  **Acute toxicity**
  Harmful if inhaled.

  - LD/LC50 values relevant for classification:
    CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues
      Oral | LD50 | >10,000 mg/kg (rat)
      Dermal | LD50 | >10,000 mg/kg (rabbit)
      Inhalative | LC50/4 h | 1.5 mg/L (rat)
    CAS: 1244733-77-4 tris(2-chloro-1-methylethyl)phosphate
      Oral | LD50 | 632 mg/kg (rat)
    CAS: 115-10-6 dimethyl ether
      Inhalative | LC50/4 h | 308 mg/L (rat)
    2,2′,6,6′-tetrabromo-4,4′-isopropylidenediphenol, propoxylated
      Oral | LD50 | 732 mg/kg (rat)
      Dermal | LD50 | >2,000 mg/kg (rat) (OECD 402)

  **Primary irritant effect:**
  Skin corrosion/irritation
  Causes skin irritation.
  Serious eye damage/irritation
  Causes serious eye irritation.
  Respiratory or skin sensitisation
  May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  May cause an allergic skin reaction.
Additional toxicological information:
- CMR effects (cancer, mutagenicity, and toxicity for reproduction)
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: Suspected of causing cancer.
- Reproductive toxicity: Based on available data, the classification criteria are not met.
- STOT-single exposure: May cause respiratory irritation.
- STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.
- Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity
- Aquatic toxicity:
  - CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues
    - LC0/96 h >1,000 mg/L (brachydanio rerio)
    - EC50/24 h >1,000 mg/L (daphnia magna)
  - CAS: 1244733-77-4 tris(2-chloro-1-methylethyl)phosphate
    - LC50/96 h 51 mg/L (pimephales promelas)
- 12.2 Persistence and degradability: No further relevant information available.
- Other information: The product is not easily biodegradable.
- 12.3 Bioaccumulative potential: No further relevant information available.
- 12.4 Mobility in soil: No further relevant information available.

Ecotoxic effects:
- CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues
  - NOEC/21 d >10 mg/L (daphnia magna)
- Other information: This product contains no substances in Annex I to Directive EC 1005/2009 concerning ozone depleting substances.

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

12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system. Cured product can be deposited together with domestic waste. Observe the specific related regulations of local authorities.
Disposal must be made according to official regulations.

**European waste catalogue**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 05 04*</td>
<td>gases in pressure containers (including halons) containing hazardous substances</td>
</tr>
<tr>
<td>08 05 01*</td>
<td>waste isocyanates</td>
</tr>
<tr>
<td>HP3</td>
<td>Flammable</td>
</tr>
<tr>
<td>HP4</td>
<td>Irritant - skin irritation and eye damage</td>
</tr>
<tr>
<td>HP5</td>
<td>Specific Target Organ Toxicity (STOT)/Aspiration Toxicity</td>
</tr>
<tr>
<td>HP7</td>
<td>Carcinogenic</td>
</tr>
<tr>
<td>HP13</td>
<td>Sensitising</td>
</tr>
</tbody>
</table>

**Uncleaned packaging:**

**Recommendation:**

Packagings that may not be cleansed are to be disposed of in the same manner as the product. Disposal must be made according to official regulations.

### SECTION 14: Transport information

**14.1 UN-Number**

ADR, IMDG, IATA: UN1950

**14.2 UN proper shipping name**

ADR: 1950 AEROSOLS

IMDG: AEROSOLS

IATA: AEROSOLS, flammable

**14.3 Transport hazard class(es)**

**ADR**

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5F Gases.</td>
<td>2.1</td>
</tr>
</tbody>
</table>

**IMDG, IATA**

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>2.1</td>
</tr>
</tbody>
</table>
### 14.4 Packing group
- ADR, IMDG, IATA
  - Void

### 14.5 Environmental hazards:
- Marine pollutant:
  - No

### 14.6 Special precautions for user
- **Hazard identification number (Kemler code):** Warning: Gases.
- **EMS Number:** F-D,S-U
- **Stowage Code**
  - SW1 Protected from sources of heat.
  - SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
- **Segregation Code**
  - SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.
  - For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2.
  - For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- **Transport category:** 2
- **Tunnel restriction code:** D

### Transport/Additional information:
- **ADR**
  - Limited quantities (LQ): 1L
  - Excepted quantities (EQ): Code: E0 Not permitted as Excepted Quantity
- **IMDG**
  - Limited quantities (LQ): 1L
  - Excepted quantities (EQ): Code: E0 Not permitted as Excepted Quantity

### UN "Model Regulation":
- UN 1950 AEROSOLS, 2.1

---

**SECTION 15: Regulatory information**

Trade name: illbruck PU010

75/324/EEC relating to aerosol dispensers
HSE EH40/2005 Workplace Exposure Limits (as amended)
"GB-CLP" The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)
(Amendment etc.) (EU Exit) Regulations 2019
"UK-REACH" The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020

· Directive 2012/18/EU
· Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

· National regulations:

· Information about limitation of use:
  Employment restrictions concerning juveniles must be observed.
  Employment restrictions concerning pregnant and lactating women must be observed.

· Other regulations, limitations and prohibitive regulations No further relevant information available.
· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for
any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases
  H220 Extremely flammable gas.
  H280 Contains gas under pressure; may explode if heated.
  H302 Harmful if swallowed.
  H315 Causes skin irritation.
  H317 May cause an allergic skin reaction.
  H319 Causes serious eye irritation.
  H332 Harmful if inhaled.
  H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  H335 May cause respiratory irritation.
  H351 Suspected of causing cancer.
  H373 May cause damage to organs through prolonged or repeated exposure.

· Department issuing SDS:
  Prepared and verified in accordance with "REACH" Regulation (EC) No 1907/2006, Annex II, Part A, 0.2.3.

· 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

(Contd. on page 13)
Trade name: illbruck PU010

CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
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. Gas 1A: Flammable gases – Category 1A
Aerosol 1: Aerosols – Category 1
Press. Gas (Comp.): Gases under pressure – Compressed gas
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

* Data compared to the previous version altered.