

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 27.01.2026

Version 4

Revision: 15.03.2024

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

#### 1.1 Product identifier

**Trade name:** INSEBO FoamTec Brandschutz 459**UFI:** 0XEA-3XVM-6U1N-HCV1**1.2 Relevant identified uses of the substance or mixture and uses advised against** Application of the substance / mixture Polyurethane-sealant

#### 1.3 Details of the supplier of the safety data sheet

**Manufacturer/Supplier:**

WS INSEBO GmbH

Industriestraße 24, A-2325 Himberg bei Wien

Tel.: +43 (0) 2235/86227-0

e-mail: office@insebo.com

**1.4 Emergency telephone number** Call local emergency information.

### 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.         |
| Aquatic Chronic 3 | H412      | Harmful to aquatic life with long lasting effects.                         |

**Additional information:**

Pressurized container: Protect from sunlight. Do not expose to temperatures exceeding 50 °C. Formation of explosive mixtures possible without sufficient ventilation.

Persons with high respiratory sensitivity (e.g. asthma, chronic bronchitis) must not come into contact with the product.

Respiratory symptoms in case of overexposure may still occur after several hours. Dust, vapours and aerosols are particularly harmful to the respiratory tract.

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#### 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 GHS07 GHS08

**Signal word** Danger**Hazard-determining components of labelling:**

diphenylmethanediisocyanate, isomeres and homologues

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**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.  
 H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P102 Keep out of reach of children.  
 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.  
 P261 Avoid breathing vapours/spray.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves, eye protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water and soap.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P314 Get medical advice/attention if you feel unwell.  
 P405 Store locked up.  
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
 P501 Dispose of contents/container to hazardous or special waste collection point.

**Additional safetyphrases according to Annex XVII of the Commission Regulation No.1907/2006:**

As from 24 August 2023 adequate training is required before industrial or professional use.

**2.3 Other hazards**
**Results of PBT and vPvB assessment**

This mixture does not meet the PBT- or vPvB-criteria according to Regulation (EC) No 1907/2006.

**Determination of endocrine-disrupting properties**

The product contains no components considered to have endocrine disrupting properties according to REACH Article 57(f), Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

**3.2 Mixture**
**Description:** Prepolymer (mixed polyol and polymeric isocyanate) with freon-free low-boiling propellant

**Dangerous components:**

|                                        |                                                                                                                                                                                                                                                                                                                                                                                      |          |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| CAS: 9016-87-9<br>EC number: 618-498-9 | diphenylmethanediisocyanate, isomeres and homologues<br>Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204<br>Specific concentration limits:<br>Eye Irrit. 2; H319: C ≥ 5 %<br>Skin Irrit. 2; H315: C ≥ 5 %<br>Resp. Sens. 1; H334: C ≥ 0.1 %<br>STOT SE 3; H335: C ≥ 5 % | 30 - 60% |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|

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**Trade name: INSEBO FoamTec Brandschutz 459**

|                                                                                               |                                                                                                                                               |          |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|
| CAS: 1244733-77-4<br>EC number: 807-935-0<br>Reg.No.: 01-2119486772-26                        | reaction products of phosphoryl trichloride and 2-methyloxirane<br>Acute Tox. 4, H302; Aquatic Chronic 3, H412<br>ATE:<br>ATE oral: 632 mg/kg | 25 - 30% |
| CAS: 75-28-5<br>EINECS: 200-857-2<br>Index number: 601-004-00-0                               | isobutane (< 0.1% butadiene)<br>Flam. Gas 1A, H220; Press. Gas (Comp.), H280                                                                  | 5 - 10%  |
| CAS: 115-10-6<br>EINECS: 204-065-8<br>Index number: 603-019-00-8<br>Reg.No.: 01-2119472128-37 | dimethyl ether<br>Flam. Gas 1A, H220; Press. Gas (Comp.), H280                                                                                | 5 - 10%  |
| CAS: 74-98-6<br>EINECS: 200-827-9<br>Index number: 601-003-00-5                               | propane<br>Flam. Gas 1A, H220; Press. Gas (Comp.), H280                                                                                       | 1 - 5%   |

**Additional information:**

Reaction products of phosphoryl trichloride and 2-methyloxirane (TCPP): UVCB-substance (Unknown or Variable composition, Complex reaction products or Biological materials)  
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:**

In case of accident or if you feel unwell seek medical advice (show label where possible).

In case of unconsciousness place patient stably in side position for transportation.

**After inhalation:** Supply fresh air, keep warm and at rest. If symptoms persist seek medical advice.

**After skin contact:**

Remove contaminated clothes. Rinse skin thoroughly with water and soap. In case of irritation seek medical treatment.

**After eye contact:**

Remove contact lenses, if present and easy to do. Rinse opened eyes for at least 15 minutes with plenty of water. If irritation persists seek medical advice.

**After swallowing:**

Not anticipated as this is an aerosol spray.

Keep affected person warm and at rest.

Seek immediate medical advice in case of complaints.

### 4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation irritation of mucous membranes of the airways can occur in sensitive people.

Local skin irritation (redness, itchiness). Degreases and dries skin.

Local eye conjunctiva irritation (redness, burning eyes, eye watering)

May cause irritation to the gastrointestinal tract accompanied by abdominal pain and nausea, even vomiting and diarrhoea can occur.

### 4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing agents:** CO<sub>2</sub>, extinguishing powder, sand, soil

**For safety reasons unsuitable extinguishing agents:** Water

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

Product contains highly flammable vapours and liquids. Formation of smoke in case of fire; carbon oxides, soot, hydrocarbons and aldehydes can be released due to incomplete combustion and thermolysis.

Risk of bursting due to heat. Formation of explosive air/vapour mixtures are possible. Vapors are heavier than air. By distribution at ground level flash back to distant ignition sources is possible.

#### 5.3 Advice for firefighters

##### **Protective equipment:**

In case of fire wear self-contained respiratory equipment and full protective suit.

Do not inhale explosion gases or combustion gases.

##### **Additional information**

Cool endangered receptacles with water spray. Contain runoff to prevent entry into water or drainage systems.

Dispose of fire debris and contaminated firefighting water according to the regulations.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Please notice instructions for person-related safety precautions, wear protective equipment (see 8.)

Avoid contact with skin and eyes.

Do not breathe vapour/spray.

Keep unprotected persons away. Ensure adequate ventilation.

Keep away from ignition sources.

#### 6.2 Environmental precautions:

Do not allow to enter sewers, surface or ground water.

Advise water authority in case of seepage into water course or sewage system.

#### 6.3 Methods and material for containment and cleaning up:

Cover with sand or damp soil.

Allow to solidify and remove mechanically.

Dispose contaminated material as waste according to section 13.

Remove residues using PU foam cleaner.

**Additional information:** Material automatically cures when exposed to air.

#### 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

While handling pay attention to the usual precaution for chemicals. Comply with instructions for use.

Avoid any contact with skin, eyes and clothes.

Do not breathe gas/vapours/spray.

Provide good ventilation/exhaustion at the workplace.

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Wash hands before break and at the end of work.

**Information about fire - and explosion protection:**


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.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Do not spray on an open flame or glowing objects.

**7.2 Conditions for safe storage, including any incompatibilities**
**Requirements to be met by storerooms and receptacles:**

Store in cool, dry place in tightly closed original containers.

Storage regulations for pressurized gas receptacles must be observed.

Suitable material for receptacles: FE (40) or ALU (41)

**Information about storage in one common storage facility:**

Do not store food, beverages and animal feeding stuff in the storage area.

**Further information about storage conditions:**

Keep out of the reach of children and domestic animals.

Protect from heat and direct sunlight.

**7.3 Specific end use(s) Sealant**

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**
**Ingredients with limit values that require monitoring at the workplace:**
**CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

|                                          |                                                                                                         |
|------------------------------------------|---------------------------------------------------------------------------------------------------------|
| MAK (Austria)                            | Short-term value: 0.1 mg/m <sup>3</sup> , 0.01 ppm; Long-term value: 0.05 mg/m <sup>3</sup> , 0.005 ppm |
| Group entry diphenylmethane diisocyanate |                                                                                                         |

|               |                                                                         |
|---------------|-------------------------------------------------------------------------|
| AGW (Germany) | Long-term value: 0.05 E mg/m <sup>3</sup> ; 1;=2=(I);DFG, H, Sah, Y, 12 |
|---------------|-------------------------------------------------------------------------|

**CAS: 75-28-5 isobutane (< 0.1% butadiene)**

|               |                                                                                                        |
|---------------|--------------------------------------------------------------------------------------------------------|
| MAK (Austria) | Short-term value: 3800 mg/m <sup>3</sup> , 1600 ppm; Long-term value: 1900 mg/m <sup>3</sup> , 800 ppm |
|---------------|--------------------------------------------------------------------------------------------------------|

|               |                                                               |
|---------------|---------------------------------------------------------------|
| AGW (Germany) | Long-term value: 2400 mg/m <sup>3</sup> , 1000 ppm; 4(II);DFG |
|---------------|---------------------------------------------------------------|

**CAS: 115-10-6 dimethyl ether**

|            |                                                    |
|------------|----------------------------------------------------|
| IOELV (EU) | Long-term value: 1920 mg/m <sup>3</sup> , 1000 ppm |
|------------|----------------------------------------------------|

|               |                                                                                                         |
|---------------|---------------------------------------------------------------------------------------------------------|
| MAK (Austria) | Short-term value: 3820 mg/m <sup>3</sup> , 2000 ppm; Long-term value: 1910 mg/m <sup>3</sup> , 1000 ppm |
|---------------|---------------------------------------------------------------------------------------------------------|

|               |                                                                   |
|---------------|-------------------------------------------------------------------|
| AGW (Germany) | Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm; 8(II);DFG, EU |
|---------------|-------------------------------------------------------------------|

**CAS: 74-98-6 propane**

|               |                                                                                                         |
|---------------|---------------------------------------------------------------------------------------------------------|
| MAK (Austria) | Short-term value: 3600 mg/m <sup>3</sup> , 2000 ppm; Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm |
|---------------|---------------------------------------------------------------------------------------------------------|

|               |                                                               |
|---------------|---------------------------------------------------------------|
| AGW (Germany) | Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm; 4(II);DFG |
|---------------|---------------------------------------------------------------|

**Regulatory information**

IOELV (European Union): (EU) 2019/1831

MAK (Austria): GKV 2020, 156. Verordnung, 09.04.2021, Teil II

AGW (Germany): TRGS 900

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**Trade name: INSEBO FoamTec Brandschutz 459****DNELs:**

Methylenediphenyl diisocyanate (CAS 101-68-8):

worker, short-term exposure - local and systemic effects, inhalation 0.1 mg/m<sup>3</sup>worker, long-term exposure - local and systemic effects, inhalation 0.05 mg/m<sup>3</sup>worker, short-term exposure - local effects, dermal 28.7 mg/cm<sup>2</sup>

worker, short-term exposure - systemic effects, dermal 50 mg/kg bw/day

consumer, short-term exposure - systemic effects, oral 20 mg/kg bw/day

consumer, short-term exposure - local and systemic effects, inhalation 0.05 mg/m<sup>3</sup>consumer, long-term exposure - local and systemic effects, inhalation 0.025 mg/m<sup>3</sup>consumer, short-term exposure - local effects, dermal 17.2 mg/cm<sup>2</sup>

consumer, short-term exposure - systemic effects, dermal 25 mg/kg bw/day

Reaction products of phosphoryl trichloride and 2-methyloxirane (CAS 1244733-77-4):

worker, short-term exposure - systemic effects, inhalation 22.6 mg/m<sup>3</sup>worker, long-term exposure - systemic effects, dermal 8.2 mg/cm<sup>2</sup>

consumer, short-term exposure - systemic effects, oral 2 mg/kg bw/day

consumer, long-term exposure - systemic effects, oral 0.52 mg/kg bw/day

consumer, long-term exposure - systemic effects, inhalation 1.45 mg/m<sup>3</sup>

consumer, long-term exposure - systemic effects, dermal 1.04 mg/kg bw/day

**PNECs:**

Methylenediphenyl diisocyanate (CAS 101-68-8):

freshwater 1 mg/l, marine water 0.1 mg/l;

intermittent releases 10 mg/l; STP 1 mg/l; soil 1 mg/kg

sediment (freshwater, marine water): exposure of sediment is not expected.

Reaction products of phosphoryl trichloride and 2-methyloxirane (CAS 1244733-77-4):

freshwater 0.32 mg/l, marine water 0.032 mg/l

sediment freshwater 11.5 mg/kg, marine water 11.15 mg/kg

soil 0.34 mg/kg, STP 19.1 mg/l, secondary poisoning 11.6 mg/kg

**8.2 Exposure controls****Appropriate engineering controls** Provide good ventilation or exhaust at work.**Individual protection measures, such as personal protective equipment****General protective and hygienic measures:**

Avoid unnecessary contact with the product. Do not eat, drink or smoke at workplace and keep it tidy.

Avoid inhalation and contact with skin and eyes.

Remove contaminated clothing immediately and wash carefully before reuse.

After use, ensure thorough cleansing of the skin.

Pregnant women should strictly avoid inhalation or skin contact.

**Respiratory protection:**

Use protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) in case of insufficient ventilation.

**Hand protection**

Chemical resistant gloves (EN 374)

Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed.

**Material of gloves**

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

Butyl rubber (thickness ≥ 0.5 mm), fluorinated elastomer (thickness ≥ 0.4 mm), chlorinated polyethylene, ethylene vinyl alcohol (EVOH), neoprene (thickness ≥ 0.5 mm), nitrile/butadiene rubber (NBR, thickness ≥ 0.35 mm), polyvinyl chloride (PVC)

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 Rate of permeability:  $\geq 480$  minutes

**Penetration time of glove material**

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

**Eye/face protection**


Safety glasses (EN 166)

**Body protection**

Protective work clothing

Protective clothing should be professionally laundered regularly.

**Environmental exposure controls**

Do not allow to enter sewers or surface water. Advise water authority if spillage has entered water course or drainage system.

### SECTION 9: Physical and chemical properties

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

|                                                                  |                                                                                                  |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Form:</b>                                                     | Liquid in aerosol containers                                                                     |
| <b>Colour:</b>                                                   | According to product specification                                                               |
| <b>Odour:</b>                                                    | Characteristic                                                                                   |
| <b>Melting point/freezing point:</b>                             | $< 0\text{ }^{\circ}\text{C}$ (MDI, ISO 3016)                                                    |
| <b>Boiling point or initial boiling point and boiling range:</b> | Not applicable, as aerosol.                                                                      |
| <b>Flammability:</b>                                             | Extremely flammable.                                                                             |
| <b>Lower and upper explosion limit:</b>                          |                                                                                                  |
| <b>Lower:</b>                                                    | 1.5 Vol % (propellant)                                                                           |
| <b>Upper:</b>                                                    | 16 Vol% (propellant)                                                                             |
| <b>Flash point:</b>                                              | $> 200\text{ }^{\circ}\text{C}$ (MDI, DIN 53171)                                                 |
| <b>Auto-ignition temperature:</b>                                | $> 350\text{ }^{\circ}\text{C}$ (propellant)<br>$> 500\text{ }^{\circ}\text{C}$ (MDI, DIN 51794) |
| <b>Decomposition temperature:</b>                                | To avoid thermal decomposition do not overheat.                                                  |
| <b>pH:</b>                                                       | Not determined.                                                                                  |
| <b>Viscosity</b>                                                 |                                                                                                  |
| <b>dynamic:</b>                                                  | $\geq 200\text{ mPas}$ (MDI, DIN 53019, $20\text{ }^{\circ}\text{C}$ )                           |
| <b>Solubility</b>                                                |                                                                                                  |
| <b>water:</b>                                                    | Insoluble; reacts with water                                                                     |
| <b>organic solvents:</b>                                         | Soluble before curing                                                                            |
| <b>Partition coefficient, n-octanol/water:</b>                   | Not determined.                                                                                  |
| <b>Vapour pressure:</b>                                          | $< 0.00001\text{ hPa}$ (MDI)<br>$< 0.7\text{ mPa}$ (propellant, $20\text{ }^{\circ}\text{C}$ )   |
| <b>Density at <math>20\text{ }^{\circ}\text{C}</math>:</b>       | $1.3\text{ g/cm}^3$                                                                              |
| <b>Relative gas density</b>                                      | No data available.                                                                               |

**9.2 Other information**

|                              |                                                                                             |
|------------------------------|---------------------------------------------------------------------------------------------|
| <b>Explosive properties:</b> | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| <b>VOC (EC):</b>             | $0.3\text{ kg/kg}$                                                                          |
| <b>Oxidising properties:</b> | No data available.                                                                          |

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**Trade name: INSEBO FoamTec Brandschutz 459**
**Information with regard to physical hazard classes**
**Aerosols**

Extremely flammable aerosol. Pressurised container: May burst if heated.

### SECTION 10: Stability and reactivity

**10.1 Reactivity** Stable in standard stocking and use conditions.

**10.2 Chemical stability** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Carbon dioxide is produced by the reaction with substances containing active oxygen, incl. water. This leads to an increase in pressure and temperature in closed containers.

**10.4 Conditions to avoid**

 Heat, open flames, ignition sources, electrostatic charge  
 Heating causes rise in pressure with risk of bursting.

**10.5 Incompatible materials** Avoid contact with strong oxidising agents and strong acids. Reacts with water.

**10.6 Hazardous decomposition products**

None under normal conditions of storage and use.

In the case of fire can be formed: carbon oxides, nitrogen oxides hydrogen cyanide, toxic pyrolysis products

### SECTION 11: Toxicological information

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**Acute toxicity**

Harmful if inhaled.

**LD/LC50 values relevant for classification:**

There are no product specific data on toxicology available.

**CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

|            |         |                                   |
|------------|---------|-----------------------------------|
| oral       | LD50    | > 2,000 mg/kg (rat) (OECD 401)    |
| dermal     | LD50    | > 9,400 mg/kg (rabbit) (OECD 402) |
| inhalative | LC50/4h | 0.31 mg/l (rat) (OECD 403)        |

**CAS: 1244733-77-4 reaction products of phosphoryl trichloride and 2-methyloxirane**

|            |         |                         |
|------------|---------|-------------------------|
| oral       | LD50    | 632 mg/kg (rat, female) |
| dermal     | LD50    | > 2,000 mg/kg (rat)     |
| inhalative | LC50/4h | > 4.6 mg/l (rat)        |

**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.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.



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**Trade name: INSEBO FoamTec Brandschutz 459**
**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.

**Subacute to chronic toxicity:**
**CAS: 1244733-77-4 reaction products of phosphoryl trichloride and 2-methyloxirane**

oral | LOAEL/13w | 52 mg/kg (rat)

**Additional toxicological information:**

pMDI:

In case of exposure to high levels, danger of irritating effects on eyes, nose, throat and respiratory tract irrespective of the concentration arises. Symptoms (breathing difficulties, cough, asthma) may even occur after several hours; Persons already sensitised to diisocyanates may develop allergic reactions even at very low concentrations of the substance. Long-term exposure may cause skin dryness or skin degreasing.

**11.2 Information on other hazards**
**Endocrine disrupting properties**

The mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f), Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 12: Ecological information

**12.1 Toxicity**
**Aquatic toxicity:**

For the product there are no ecotoxicological data available.

**CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

|           |                                                         |
|-----------|---------------------------------------------------------|
| LC50/96h  | > 1,000 mg/l (zebrafish, Danio rerio) (OECD 203)        |
| EC50/24h  | > 1,000 mg/l (water flea, Daphnia magna) (OECD 202)     |
| EC50/3h   | > 100 mg/l (activated sludge) (OECD 209)                |
| ErC50/72h | > 1,640 mg/l (alga, Desmodesmus subspicatus) (OECD 201) |
| NOEC/21d  | > 10 mg/l (water flea, Daphnia magna) (OECD 202)        |

**CAS: 1244733-77-4 reaction products of phosphoryl trichloride and 2-methyloxirane**

|          |                                                 |
|----------|-------------------------------------------------|
| LC50/96h | 51 mg/l (flathead minnow, Pimephales promelas)  |
| EC10/3h  | 191 mg/l (activated sludge)                     |
| EC50/48h | 131 mg/l (water flea, Daphnia magna)            |
| EC50/72h | 82 mg/l (alga, Pseudokirchneriella subcapitata) |
| EC50/3h  | 784 mg/l (activated sludge)                     |
| NOEC/72h | 13 mg/l (alga, Pseudokirchneriella subcapitata) |
| NOEC/21d | 32 mg/l (water flea, Daphnia magna)             |

**Additional information:** Insoluble in water, the PU foam spreads on the water surface.

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#### 12.2 Persistence and degradability

pMDI: not readily biodegradable.

test: aerobic, inoculum: activated sludge; degradability: 0 %, 28 days (OECD 302 C)

Reaction products of phosphoryl trichloride and 2-methyloxirane (TCPP):

Method OECD 302A 95 % - Inherent - 64 days; Method OECD 301E 14 % - not readily - 28 days

TCPP can be considered as inherently biodegradable under aerobic conditions. Nevertheless, for risk assessment purposes the substance is evaluated as "inherently biodegradable not fulfilling the criteria".

Half-life in water: fresh water > 365 days (pH 4, pH 7, pH 9; 50 °C).

Decomposition by light: 50 %; 0.358 days; Biodegradability: inherent.

#### 12.3 Bioaccumulative potential

pMDI: No significant accumulation in organisms, the substance hydrolyses violently in water.

bioconcentration factor (BCF): <14 (OECD 305)

(Cyprinus carpio, exposure time 42 d, concentration 0.2 mg/l)

Reaction products of phosphoryl trichloride and 2-methyloxirane (TCPP): low potential for bioaccumulation

octanol-water partition coefficient (log Pow): 2.68; bioconcentration factor (BCF): 0.8 - 14 days

#### 12.4 Mobility in soil Very limited due to chemical reaction with water to form an insoluble product (PU foam).

#### 12.5 Results of PBT and vPvB assessment Not applicable.

#### 12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.

#### 12.7 Other adverse effects

Isocyanate reacts with water at the interface forming CO<sub>2</sub> and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by water-soluble solvents. Previous experience shows that polyurea is inert and non-degradable.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Recommendation

Do not dispose waste or remains together with domestic waste, do not empty into sink or toilet, hand over to hazardous waste disposers.

##### European waste catalogue

15 01 10 : Packaging containing residues of or contaminated by dangerous substances

15 01 04: metallic packaging

17 02 03: plastic

##### Uncleaned packaging

##### Recommendation:

Cans should be emptied completely and should preferably be recycled or reused in compliance with the local / national regulations. Cans not emptied completely or remains have to be disposed as hazardous waste.

### SECTION 14: Transport information

#### 14.1 UN number or ID number

ADR, IMDG, IATA

UN1950

#### 14.2 UN proper shipping name

ADR

1950 AEROSOLS

IMDG

AEROSOLS

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|                                                                                   |                       |
|-----------------------------------------------------------------------------------|-----------------------|
| <b>IATA</b>                                                                       | AEROSOLS, flammable   |
| <b>14.3 Transport hazard class(es)</b>                                            |                       |
| <b>ADR</b>                                                                        |                       |
|  |                       |
| <b>Class</b>                                                                      | 2 5F Gases.           |
| <b>Label</b>                                                                      | 2.1                   |
| <b>IMDG, IATA</b>                                                                 |                       |
|  |                       |
| <b>Class</b>                                                                      | 2.1 Gases.            |
| <b>Label</b>                                                                      | 2.1                   |
| <b>14.4 Packing group</b>                                                         |                       |
| <b>ADR, IMDG, IATA</b>                                                            | void                  |
| <b>14.5 Environmental hazards:</b>                                                | not applicable        |
| <b>14.6 Special precautions for user</b>                                          | Warning: Gases.       |
| <b>Hazard identification number (Kemler code):</b>                                | -                     |
| <b>14.7 Maritime transport in bulk according to IMO instruments</b>               | not applicable        |
| <b>UN "Model Regulation":</b>                                                     | UN 1950 AEROSOLS, 2.1 |

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**Seveso category** P3a FLAMMABLE AEROSOLS

#### Restrictions according to Annex XVII of the Regulation (EC) No 1907/2006:

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

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.

Methylenediphenyl diisocyanate (MDI), including some specific monomers, was included in Annex XVII (entry 56) of REACH by Regulation (EC) No 552/2009.

Diisocyanates,  $O = C = NR - N = C = O$ , were included in Annex XVII (entry 74) of REACH by Regulation (EU) 2020/1149.

**VOC (EC):** 0.3 kg/kg

**Water hazard class:** Water hazard class (German Regulation) 1 (self-assessment): slightly hazardous for water.

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

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#### 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.  
H412 Harmful to aquatic life with long lasting effects.  
EUH204 Contains isocyanates. May produce an allergic reaction.

##### Further information:

The classification of the mixture is in accordance with point 1.1.3.7, Annex I, Part 1 of the CLP Regulation.

**Date of previous version:** 01.03.2023

##### Abbreviations and acronyms:

UFI: Unique Formula Identifier  
CLP: REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
EC-Number: European Community number  
EINECS: European Inventory of Existing Commercial Chemical Substances  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
IOELV: indicative occupational exposure limit values (EU)  
MAK: maximum concentration of a chemical substance in the workplace  
AGW: occupational exposure limit  
DNEL: Derived No-Effect Level  
PNEC: Predicted No-Effect Concentration  
EC50: maximal effective concentration, 50%  
ErC50: median effective concentration for growth rate (algae)  
LC50: lethal concentration, 50%  
LD50: lethal dose, 50%  
LOAEL: Lowest observed adverse effect level  
NOEC: no observed effect concentration  
OECD: Organisation for Economic Co-operation and Development  
log Pow, Kow: partition coefficient (n-octanol/water)  
PBT: persistent, bioaccumulative and toxic properties  
vPvB: very persistent and very bioaccumulative properties  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
VOC: Volatile Organic Compounds  
ATE: Acute toxicity estimate values  
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

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STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

**Data compared to the previous version altered:** Section 1,2,3,4,11,12,16