

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 04.07.2016

Version number 2

Revision: 04.07.2016

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

- **1.1 Product identifier**
- **Trade name:** Gefäß-Füller (unbrennbar)
- **Article number:** -
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use**  
SU21 Consumer uses: Private households / general public / consumers  
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Application of the substance / the mixture** Auxiliary
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Klostermann Chemie GmbH & Co. KG  
von-dem-Bussche-Münch-Str. 4  
32339 Espelkamp  
  
Tel.: 05772/6711  
Fax: 05772/6799  
  
www.klostermann-chemie.de  
E-Mail: info@klostermann-chemie.de
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
Poison Control Center Mainz - 24 hour emergency service – phone: +49 (0) 6131/19240

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Aerosol 3 H229 Pressurised container: May burst if heated.
- **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** Void
- **Signal word** Warning
- **Hazard statements**  
H229 Pressurised container: May burst if heated.
- **Precautionary statements**  
P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P251 Do not pierce or burn, even after use.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

(Contd. on page 2)

GB

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**Trade name: Gefäß-Füller (unbrennbar)**

(Contd. of page 1)

· <b>Dangerous components:</b>		
CAS: 811-97-2 EINECS: 212-377-0 Reg.nr.: 01-2119459374-33	1,1,1,2-tetrafluoroethane Press. Gas C, H280	50-100%
CAS: 107-21-1 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28-xxxx	ethanediol STOT RE 2, H373; Acute Tox. 4, H302	2.5-10%

· **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:** No special measures required.
- **After inhalation:**  
Supply fresh air.  
Seek medical treatment in case of complaints.
- **After skin contact:**  
Immediately 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 a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
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.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

#### 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 ground water or surface water.
- **6.3 Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Absorb liquid components with liquid-binding material.
- **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.

GB

(Contd. on page 3)

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Revision: 04.07.2016

Trade name: Gefäß-Füller (unbrennbar)

(Contd. of page 2)

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Use only in well ventilated areas.
- **Information about fire - and explosion protection:**  
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.
- **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:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

811-97-2	1,1,1,2-tetrafluoroethane
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WEL	Long-term value: 4240 mg/m <sup>3</sup> , 1000 ppm
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- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
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:**

Use suitable respiratory protective device in case of insufficient ventilation.

Short term filter device:

Filter A/P2

- **Protection of hands:**



Protective gloves

- **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.4$  mm

- **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 protection:** Safety glasses

- **Body protection:** Protective work clothing

GB

(Contd. on page 4)

**Safety data sheet**  
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Version number 2

Revision: 04.07.2016

Trade name: Gefäß-Füller (unbrennbar)

(Contd. of page 3)

### SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Aerosol
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Not applicable, as aerosol.

· **Flash point:** Not applicable, as aerosol.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 371 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Not determined.

· **Explosion limits:**

· <b>Lower:</b>	2.6 Vol %
· <b>Upper:</b>	12.6 Vol %

· **Oxidising properties:** Not determined.

· **Vapour pressure at 20 °C:** 5500 hPa

· <b>Density at 20 °C:</b>	1.158 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not applicable.

· **Solubility in / Miscibility with water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.
· <b>VOC (EC) %</b>	96.40 %
· <b>VOC (EC) g/l</b>	1116.4 g/l
· <b>VOCV (CH)</b>	0.00 %

· **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.

GB

(Contd. on page 5)

**Safety data sheet**  
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Revision: 04.07.2016

Trade name: Gefäß-Füller (unbrennbar)

(Contd. of page 4)

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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** Based on available data, the classification criteria are not met.
- **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.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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:**  
Containers can be recycled if completely empty; if not, dispose product/containers as dangerous waste. Observe local regulations.
  - **European waste catalogue**
- |          |   |
|----------|---|
| 15 01 04 | metallic packaging  |
| 16 05 05 | gases in pressure containers other than those mentioned in 16 05 04 |
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** UN1950 AEROSOLS
- **IMDG, IATA** AEROSOLS

(Contd. on page 6)

GB

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(Contd. of page 5)

## · 14.3 Transport hazard class(es)

## · ADR



- Class 2 5A Gases.
- Label 2.2

## · IMDG, IATA



- Class 2 Gases.
- Label 2.2

## · 14.4 Packing group

- ADR, IMDG, IATA Void

## · 14.5 Environmental hazards:

- Marine pollutant: No

## · 14.6 Special precautions for user

- EMS Number: Warning: Gases.

- F-D,S-U

## · 14.7 Transport in bulk according to Annex II of

- Marpol and the IBC Code Not applicable.

## · Transport/Additional information:

## · ADR

- Limited quantities (LQ) 1L
- Excepted quantities (EQ) Code: E0  
Not permitted as Excepted Quantity
- Transport category 1
- Tunnel restriction code D

## · IMDG

- Limited quantities (LQ) 1L
- Excepted quantities (EQ) Code: E0  
Not permitted as Excepted Quantity

## · UN "Model Regulation":

UN 1950 AEROSOLS, 2.2

### SECTION 15: Regulatory information

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
- Exposure scenario(s)  
Exposure scenario(s) of ingredients (if present) are available on request at:  
info@klostermann-chemie.de

### 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.

(Contd. on page 7)

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(Contd. of page 6)

**· Relevant phrases***H280 Contains gas under pressure; may explode if heated.**H302 Harmful if swallowed.**H373 May cause damage to organs through prolonged or repeated exposure.***· Department issuing SDS: Product safety department****· Contact: Head of Product Safety Department****· Abbreviations and acronyms:***ADR: Accord européen sur le transport 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)**VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Aerosol 3: Aerosols – Category 3**Press. Gas C: Gases under pressure – Compressed gas**Acute Tox. 4: Acute toxicity – Category 4**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2*

GB