

# Material Safety Data Sheet

## According to 2001/58/EC

Printing date 22.09.2006

Reviewed on 22.09.2006

### 1 Identification of the substance/preparation and of the company/undertaking

· **Product details**

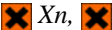






- **Trade name:** Den Braven Purfoam-2-K B2
- **Application of the substance / the preparation**  
2 component polyurethane montage foam in aerosol cans  
B2 quality
- **Manufacturer/Supplier:**  
BÜKA-Chemie GmbH  
Industriestraße 1-7  
D-01936 Schwepnitz
- **Further information obtainable from:** Abteilung Umweltschutz

### 2 Composition/information on ingredients

· **Chemical characterization**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues  Xn,  Xi; R 20-36/37/38-42/43	25-50%
CAS: 13674-84-5	tris(2-chlorisopropyl)-phosphate R 52/53	10-25%
CAS: 75-28-5 EINECS: 200-857-2	isobutane  F+; R 12	2.5-10%
CAS: 107-21-1 EINECS: 203-473-3	ethanediol  Xn; R 22	2.5-10%
CAS: 115-10-6 EINECS: 204-065-8	dimethyl ether  F+; R 12	2.5-10%
CAS: 86675-46-9	halogenated polyether polyol  Xn; R 22	2.5-10%
CAS: 74-98-6 EINECS: 200-827-9	propane  F+; R 12	2.5-10%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 3 Hazards identification

· **Hazard description:**



Xn Harmful  
F+ Extremely flammable

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

R 12 Extremely flammable.

R 20 Harmful by inhalation.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 42/43 May cause sensitisation by inhalation and skin contact.

Contains isocyanates. See information supplied by the manufacturer

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

(Contd. on page 2)

# Material Safety Data Sheet

## According to 2001/58/EC

Printing date 22.09.2006

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**Trade name: Den Braven Purfoam-2-K B2**

(Contd. of page 1)

*Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.*

*Buildup of explosive mixtures possible without sufficient ventilation.*

*Keep out of the reach of children*

**· Classification system:**

*The classification is according to the latest editions of the EU-lists, and extended by company and literature data.*

**· Additional information:**

*When transported by motorcar or truck cans have to stand upright in the boot or on the loading space - not in car interior.*

*Do not use if the temperature of the can exceeds +25°C - danger of bursting- If necessary cans have to cool in a water bath.*

*When both components are mixed heat will develop. After activation empty the can completely within the period of time given by the manufacturer.*

*The blowing agent is extremely flammable.*

*Only unreacted formulation or fresh foam is harmful.*

### 4 First-aid measures

**· General information:** *Immediately remove any clothing soiled by the product.*

**· 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:** *Immediately wash with water and soap and rinse thoroughly.*

**· After eye contact:**

*Rinse opened eye for several minutes under running water. Then consult a doctor.*

*Fresh foam remove or scrape carefully.*

**· After swallowing:** *Call for a doctor immediately.*

### 5 Fire-fighting measures

**· 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*

**· Special hazards caused by the substance, its products of combustion or resulting gases:**

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

*Can form explosive gas-air mixtures.*

*Danger of bursting by heating.*

**· Protective equipment:** *Mouth respiratory protective device.*

**· Additional information** *Cool endangered receptacles with water spray.*

### 6 Accidental release measures

**· Person-related safety precautions:** *Wear protective equipment. Keep unprotected persons away.*

**· Measures for environmental protection:**

*Do not allow product to reach sewage system or any water course.*

*Do not allow to enter sewers/ surface or ground water.*

**· Measures for cleaning/collecting:**

*Dispose contaminated material as waste according to item 13.*

*Ensure adequate ventilation.*

*Do not flush with water or aqueous cleansing agents*

(Contd. on page 3)

# Material Safety Data Sheet

## According to 2001/58/EC

Printing date 22.09.2006

Reviewed on 22.09.2006

**Trade name: Den Braven Purfoam-2-K B2**

(Contd. of page 2)

Foamed out fresh material should be wetted or covered with moisture absorbing materials (sand, wood shavings, absorbing chemicals) for curing

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:**
  - Ensure good ventilation/exhaustion at the workplace.
  - Open and handle receptacle with care.
  - Use up the activated can immediately within the period of time specified by the manufacturer
- **Information about fire - and explosion protection:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
  - Pressurized 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.
  - Do not spray onto a naked flame or any incandescent material.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
  - Store in a cool location.
  - Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
  - Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

### 8 Exposure controls/personal protection

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

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

#### 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

MEL	Short-term value: 0.07 mg/m <sup>3</sup>
	Long-term value: 0.02 mg/m <sup>3</sup>
	Sen; as -NCO

#### 811-97-2 1,1,1,2-Tetrafluorethan

OES	Long-term value: 4240 mg/m <sup>3</sup> , 1000 ppm
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#### 107-21-1 ethanediol

OES	Short-term value: 104** mg/m <sup>3</sup>
	Long-term value: 10* 52** mg/m <sup>3</sup>
	*particulate, IOELV, Sk **vapour, New, IOELV, Sk

#### 115-10-6 dimethyl ether

OES	Short-term value: 958 mg/m <sup>3</sup> , 500 ppm
	Long-term value: 766 mg/m <sup>3</sup> , 400 ppm
	IOELV

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

- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes and skin.
- **Respiratory protection:**
  - Use suitable respiratory protective device in case of insufficient ventilation.
  - Not necessary if room is well-ventilated.

(Contd. on page 4)

# Material Safety Data Sheet

## According to 2001/58/EC

Printing date 22.09.2006

Reviewed on 22.09.2006

Trade name: Den Braven Purfoam-2-K B2

(Contd. of page 3)

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

Nitrile rubber, NBR

Chloroprene rubber, CR

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

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.

· **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:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Aerosol
<b>Colour:</b>	beige or coloured
<b>Odour:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** Not applicable, as aerosol.

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

· **Ignition temperature:** 235°C

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

· **Danger of explosion:** In use, may form flammable/explosive vapour-air mixture.

· **Vapour pressure at 20°C:** 6 bar

· **Density at 20°C:** 1.03 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

## 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

Danger of bursting by heating.

(Contd. on page 5)

# Material Safety Data Sheet

## According to 2001/58/EC

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(Contd. of page 4)

- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**

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

#### 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50/4 h	0,49 mg/l (rat)
<b>13674-84-5 tris(2-chlorisopropyl)-phosphate</b>		
Oral	LD50	3600 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

### 12 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.

### 13 Disposal considerations

- **Product:**

- **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Taking back and recycling of empty cans free of charge in Germany :

PDR Recycling GmbH & Co KG

Am -Alten-Sägewerk 3

D-95349 Thurnau

Free call 0800 783 67 36

Fax 0800 783 67 37

- **Waste disposal key:**

Cured material: 170603

Empty cans: 160504

(Contd. on page 6)

# Material Safety Data Sheet

## According to 2001/58/EC

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Trade name: Den Braven Purfoam-2-K B2

(Contd. of page 5)

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

### 14 Transport information

#### · Land transport ADR/RID (cross-border)



- **ADR/RID class:** 2 5F Gases.
- **Danger code (Kemler):** 23
- **UN-Number:** 1950
- **Packaging group:** -
- **Hazard label** 2.1
- **Description of goods:** 1950 AEROSOLS
- **Remarks:** LQ2

#### · Maritime transport IMDG:



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** No
- **Proper shipping name:** AEROSOLS

#### · Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **Proper shipping name:** AEROSOLS, flammable

### 15 Regulatory information

- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**  
Xn Harmful  
F+ Extremely flammable

(Contd. on page 7)

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(Contd. of page 6)

· **Hazard-determining components of labelling:**

*diphenylmethanediisocyanate, isomeres and homologues*

· **Risk phrases:**

12 *Extremely flammable.*

20 *Harmful by inhalation.*

36/37/38 *Irritating to eyes, respiratory system and skin.*

42/43 *May cause sensitisation by inhalation and skin contact.*

· **Safety phrases:**

2 *Keep out of the reach of children.*

9 *Keep container in a well-ventilated place.*

16 *Keep away from sources of ignition - No smoking.*

24/25 *Avoid contact with skin and eyes.*

26 *In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.*

37/39 *Wear suitable gloves and eye/face protection.*

45 *In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).*

51 *Use only in well-ventilated areas.*

56 *Dispose of this material and its container to hazardous or special waste collection point.*

· **Special labelling of certain preparations:**

*Contains isocyanates. See information supplied by the manufacturer*

*Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.*

*Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.*

*Buildup of explosive mixtures possible without sufficient ventilation.*

*Keep out of the reach of children*

· **National regulations:**

· **Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*

### 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 R-phrases**

12 *Extremely flammable.*

20 *Harmful by inhalation.*

22 *Harmful if swallowed.*

36/37/38 *Irritating to eyes, respiratory system and skin.*

42/43 *May cause sensitisation by inhalation and skin contact.*

52/53 *Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*