

# SAFETY DATA SHEET

according to regulation (EC) 1907/2006 (REACH)

## HeBoCoat® 401E

Date of last alteration: 8 March 2016

### SECTION 1: Identification of the Substance or mixture and of the company

- 1.1 Product identifier**  
Trade name: Boron Nitride Spray  
**HeBoCoat® 401E**
- 1.2 Relevant identified uses of the mixture and uses advised against**  
Industrial: High temperature parting agent
- 1.3 Details of the supplier of the Safety Data Sheet**  
Manufacturer/supplier: Henze Boron Nitride Products AG  
Street: Grundweg 1  
Country ID/postal code/city: D-87493 Lauben  
Telephone/Telefax: Tel.: +49/(0)8374-58997-0      Telefax +49/(0)8374-58997-99  
E-mail (competent person): [info@henze-bnp.de](mailto:info@henze-bnp.de)
- 1.4 Contact numbers / emergency telephone number**  
Contact for technical information  
*Mo-Fr: 8 am to 3 pm*      Tel.: +49/(0)8374-58997-0      Telefax +49/(0)8374-58997-99  
Information on the safety data sheet  
*Mo-Fr: 8 am to 3 pm*      Tel.: +49/(0)8374-58997-0      Telefax +49/(0)8374-58997-99  
Emergency telephone number (Germany)  
Toxicological Dept. University of Munich  
*Poison emergency call Munich*      Tel.: +49/(0)89-19240

### SECTION 2: Hazards Identification

- 2.1 Classification of the substance or mixture**  
Classification according to regulation EC 1272/2008 [CLP]  
Flam. Aerosol 1, H222, H229  
This product is a hazardous mixture acc. to regulation 1272/2008/EC.
- 2.2 Label elements**  
Labelling acc. to regulation EC 1272/2008 [CLP], (EWG) 75/324 and (EG) 2008/47  
**Pictograms:**



- Signal word:** Danger
- Hazard statements:**  
H222: Extremely flammable aerosol.  
H229: Pressurised container: May burst if heated.
- 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.  
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
P102: Keep out of reach of children.
- 2.3 Other hazards**  
No classification as SVHC.  
EUH066: Repeated exposure may cause skin dryness or cracking.

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### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

None. The product is no substance.

#### 3.2 Mixtures

Chemical characterisation: Mixture of Boron nitride powder, ethanol, propellant and additives, packed in an aerosol.

To be designated substances:

| Substance | CAS-No.  | EINECS/<br>ELINCS-No. | ECHA/ List-No. | Content % | Classification                        | Labelling (EC) |      |
|-----------|----------|-----------------------|----------------|-----------|---------------------------------------|----------------|------|
| n-Butane  | 106-97-8 | 203-448-7             | 601-004-00-0   | < 60      | Extremely flammable liquid and vapour | GHS 02         | H224 |
| Propane   | 74-98-6  | 200-827-9             | 603-096-00-8   | < 20      | Extremely flammable liquid and vapour | GHS 02         | H224 |
| Ethanol   | 64-17-5  | 200-578-6             | 603-002-00-5   | < 30      | Highly flammable liquid and vapour    | GHS 02         | H225 |

Full wording of the H- EUH- and P-phrases: *please see section 16*

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### After inhalation (aerosol)

Provide person with fresh air. Consult doctor if complaint persists.

##### After skin contact

No special measures necessary. Wash the affected skin with water.

##### After eye contact

Rinse with plenty of water. When problems occur seek medical advice.

##### After ingestion

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

None.

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

None.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Not applicable. Cool down surrounding fire with water spray jet to avoid aerosol explosions.

##### Extinguishing media which must not be used for safety reasons

Not applicable.

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

Not applicable. Combustion products: Water, carbon dioxide.

#### 5.3 Advice for firefighters

In case of surrounding fire all measures should match accordingly. Please see 5.1 - Cooling with water spray jet.

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### SECTION 6: Accidental release measures

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

In case of damaged or leaking aerosol can, don't inhale, avoid skin contact and open fire. Bring the defect aerosol outside to allow outgassing.

#### 6.2 Environmental precautions

Only completely emptied aerosol cans should be disposed.

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

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#### 6.4 Reference to other sections

Consider security advices in section 7, 8 and 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

##### 7.1.1 Recommendations

Ensure adequate ventilation. Keep away from fire. Avoid contact with hot surfaces. Avoid direct contact with eyes, skin and clothes.

##### 7.1.2 Precautions against fire and explosion

Keep the spray containers away from temperatures above 50 °C and do not open them violently. In closed rooms flammable gas mixtures can develop. Keep away from sources of ignition and do not smoke. Vapours are heavier than air, therefore inflammable gas mixtures occur at first near the ground. In case of fire remove the aerosols out of endangered area. Cool endangered containers with water.

##### 7.1.3 Additional handling information

Never open an aerosol violently.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Requirements for storage areas and containers

Protect from temperatures exceeding 50°C. Do not store in passage-ways, thoroughfare, entrance-halls and lofts.

##### Advice for storage of incompatible materials

VCI-storage class: LGK 2B – aerosol cans - see prohibition terms on storing these goods together with chemicals.

##### Additional information concerning storage conditions

Storing in high quantities according to regulation "TRbF 20 Lager".

#### 7.3 Specific end use(s)

Industrial high temperature parting agent.

For additional information see our product information.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Germany

| Name    | CAS-No.  | Type | mg/m3 | ppm   | Excess Factor | Note | Source   |
|---------|----------|------|-------|-------|---------------|------|----------|
| n-Butan | 106-97-8 | AGW  | 2.400 | 1.000 | 4 (II)        | DFG  | TRGS 900 |
| Propan  | 74-98-6  | AGW  | 1.800 | 1.000 | 4 (II)        | DFG  | TRGS 900 |
| Ethanol | 64-17-5  | AGW  | 960   | 500   | 2 (II)        | DFG  | TRGS 900 |

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### 8.2 Exposure controls

#### Technical control equipment

For spray application ensure adequate ventilation or install adequate aspiration system.

#### Spray application (aerosol)

Inhalation protection : Use breathing mask FFP2.  
Eye protection : Use sealed safety glasses.  
Hand protection : None. Eventually use breathable protection gloves against contamination.  
Skin protection : Use water resistant skin protection cream.  
Body protection : Wear protective suit.  
Hygiene : Wash affected skin with water after work.

#### Environmental Exposure limitation and control

See section 6 and 7.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance: Liquid - aerosol  
Colour: White  
Odour: Alcohol and propellant

#### Safety related data

Lower explosion limit (ethanol): 1,5 Vol %  
Upper explosion limit (ethanol): 11,2 Vol %  
Flash point: Not determined, aerosol  
Ignition temperature: Not determined, aerosol  
Oxidizing properties: Not oxidizing  
pH-Value (20 °C): Can not be determined  
Melting point / Melting range: ---  
Boiling point / Boiling range: ---  
Vapour pressure (20 °C): Not determined  
Vapour pressure (50 °C): Not determined  
Density (20 °C): Not determined  
Water solubility / -miscibility: ---  
Vapour density (20 °C): Not determined  
Solvent content: < 30 %

### 9.2 Other Information

Filling pressure 4,3 bar (20 °C)  
Test pressure 12 bar (20 °C)  
Gas range 3.2 (propellant)  
Global warming potential 3 (propellant)  
Ozone-depleting potential 0 (propellant)  
VOC (EC) 343,0 g/l

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

If stored and handled in accordance to standard industrial practices and local regulations - none known.

### 10.4 Conditions to avoid

Heat, open flames and other sources of ignition. Hazard to burst at temperatures exceeding 50 °C.

### 10.5 Incompatible materials

None.

### 10.6 Hazardous decomposition products

If stored and handled in accordance to standard industrial practices and local regulations - none known.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

None. At current state of knowledge no damage is expected.

|                         |      |
|-------------------------|------|
| Acute toxicity:         | None |
| Irritation:             | None |
| Corrosivity:            | None |
| Sensitisation:          | None |
| Repeated dose toxicity: | None |
| Carcinogenicity:        | None |
| Mutagenicity:           | None |
| Reproductive toxicity:  | None |
| Further information:    | None |

### SECTION 12: Ecological information

#### 12.1 Toxicity

None.

#### 12.2 Persistence and degradability

Ethanol is biologically degradable. Propellant is photodegradable.

#### 12.3 Bioaccumulative potential

No bioaccumulation is expected.

#### 12.4 Mobility in soil

None.

#### 12.5 Results of PBT and vPvB assessment:

Negative.

#### 12.6 Other adverse effects

See section 9.2 regarding global warming potential and ozone-depleting potential.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

No hazardous waste according to the directive on the List of Waste Materials (AVV). Waste disposal in accordance with the local regulations.

##### Recommendation

Clarify exact waste code with the local disposal authority. Aerosols have to be disposed separately, not together with household waste.

##### European Waste List

16 05 04: Gases in pressure containers (including halons) containing dangerous substances.

15 01 04: Metallic packaging.

##### Waste Code

14 06 05\*: Waste of organic solvents, refrigerants and propellants: sludges or solid wastes containing other solvents.

##### Packaging

##### Uncleaned packaging

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

##### Cleaned packaging

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### SECTION 14: Transport information

#### Transport by road/ Transport by rail (ADR/RID)

|                            |  |
|----------------------------|--|
| UN number:                 | 1950                                     |
| Proper shipping name:      | pressurized container                    |
| Class:                     | 2  |
| Packing group:             | -  |
| Environmentally dangerous: | No                                       |
| Label(s):                  | No. 2.1 Flammable Gas                    |
| Classification code:       | 5F                                       |
| Special provisions:        | SV 625: set-labelling "UN 1950 AEROSOLS" |

#### Transport by sea-going ships (IMDG-Code)

|                            |                        |
|----------------------------|------------------------|
| UN number:                 | 1950                   |
| Proper shipping name:      | AEROSOLS               |
| Class:                     | 2                      |
| Packing group:             | -                      |
| Environmentally dangerous: | No                     |
| Label(s):                  | No. 2.1, Flammable Gas |
| EmS:                       | F-D, S-U               |

#### Transport by air ICAO-TI/IATA-DGR

|                                |                                    |
|--------------------------------|------------------------------------|
| UN number:                     | 1950                               |
| Proper shipping name:          | Aerosols, flammable                |
| Class:                         | 2.1                                |
| Packing group:                 | -                                  |
| Environmentally dangerous:     | No                                 |
| Label(s):                      | Flammable Gas, Cargo IMP Code: RFG |
| Packing instructions/markings: |                                    |
| PAX (passenger aircraft):      | PI 203 Max Net.: 75 kg             |
| CAO (cargo aircraft only):     | PI 203 Max Net.: 150 kg            |

### SECTION 15: Regulatory information

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

##### EC regulations

No classification necessary acc. to regulation (EC) no. 67/548 and 1999/45.

Restrictions on the marketing of solvent-containing inks and lacquers (ChemVOCFarbV): Not applicable.

Detergents regulation (EC) no. 648/2004: Not applicable.

Restrictions on the emissions of volatile organic compound (regulation 1999/13/EC (VOC)): Applicable.

Regulation 96/82/EC (Seveso II directive): Not applicable.

##### National regulations (Germany)

Water hazard class: 1 (VwVwS annex 3).

TA-Luft (Air): 5.2

Incident Ordinance: Not applicable.

Employment limitations: -

Restrictions on use: Not applicable.

Others: -

#### 15.2 Chemical safety assessment

Acc. to all risk evaluations in section 2., 3., 11. and 12. (no SVHC) and legal regulations, no chemical safety assessment necessary.

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### SECTION 16: Other information

#### H- and P-phrases

H224: Extremely flammable liquid and vapour.  
H280: Contains gas under pressure; may explode if heated.  
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
P211: Do not spray on an open flame or other ignition source.  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271: Use only outdoors or in a well-ventilated area.  
P273: Avoid release to the environment.  
P305: If in eyes: Rinse carefully with plenty of water.  
P337 +P313: If eye irritation persists: Get medical advice/attention.

#### Training advice

No product-specific training in connection with safety measures necessary.

#### Recommended restrictions on use

In case of uses, deviating from the uses mentioned in section 1.2, the manufacturer has to be asked concerning special safety measures.

#### Sources of key data

GESTIS-substance database  
G. Hommel, Heidelberg (Hrsg.), Handbuch der gefährlichen Güter  
Kühn/Birett, „Merkbücher Gefährliche Arbeitsstoffe“  
VCI-concept: collective storage of chemicals

#### Additional Information

The information provided in this safety data sheet describes only the safety requirements of the product and is based on the knowledge at the date of publication. The information is not to be considered as a warranty of quality specification. The properties of the product are described in the product specification.  
In case of uses, deviating from the uses mentioned in section 1.2, or if the product is used in combination with any other material or the product is changed in a process, the information in this safety data sheet may not be valid in parts or totally. The information may not be transferred to products with the same or a similar name.

The safety data sheet has been revised and completed fundamentally.