

Revision Date 23-Mar-2012

Revision Number 2

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### Product Identifier

Product Description:

Benzyltriethylammonium borohydride

Cat No.

302470000; 302470010; 302470100

Synonyms

Benzyltriethylammonium tetrahydridoborate

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

Recommended Use

Laboratory chemicals

Uses advised against

No Information available

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

#### Company

Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

E-mail address

begel.sdsdesk@thermofisher.com

### Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300

CHEMTREC Phone Number, Europe: 001-703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Skin Corrosion/irritation	Category 1 B
Substances/mixtures which, in contact with water, emit flammable gases.	Category 3

### Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s)

F - Highly flammable

C - Corrosive

R-phrases(s)

R15 - Contact with water liberates extremely flammable gases

R34 - Causes burns

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## SECTION 2. HAZARDS IDENTIFICATION

### Label Elements



### Signal Word

**Danger**

### Hazard Statements

H314 - Causes severe skin burns and eye damage

H261 - In contact with water releases flammable gases

### Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear eye protection/ face protection

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/ physician

### Other Hazards

No information available.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Benzyltriethylammonium borohydride 85874-45-9		96	85874-45-9	F; 15 C; R34	Water-react. 3 (H261) Skin Corr. 1B (H314)	-

**For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16**

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**SECTION 4. FIRST AID MEASURES****Description of first aid measures****Eye Contact**

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

**Ingestion**

Do not induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician immediately. If possible drink milk afterwards.

**Inhalation**

Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.

**Notes to Physician**

Treat symptomatically

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. chemical foam.

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

No information available.

**Special hazards arising from the substance or mixture**

Contact with water liberates toxic gas. Water reactive. Produce flammable gases on contact with water.

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Sweep up or vacuum up spillage and collect in suitable container for disposal.

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## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe dust. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Use only in area provided with appropriate exhaust ventilation. Contents may develop pressure upon prolonged storage.

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Never allow product to get in contact with water during storage. Keep under nitrogen.

### Specific End Uses

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

#### Derived No Effect Level (DNEL)

No information available.

#### Predicted No Effect Concentration (PNEC)

No information available.

### Exposure controls

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas

#### Personal protective equipment

##### Eye Protection

Goggles

##### Hand Protection

Protective gloves

##### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

##### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

#### Environmental exposure controls

No information available.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Physical State

Powder, Solid

#### Appearance

White

#### pH

No information available.

#### Boiling Point/Range

No information available.

#### Melting Point/Range

146°C / 294.8°F

#### Flash Point

No information available.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Autoignition Temperature</b>	No information available.
<b>Water Solubility</b>	reacts with water
<b>Molecular Formula</b>	C13 H26 B N
<b>Molecular Weight</b>	207.17

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

### Chemical Stability

Stable under normal conditions. Moisture sensitive.

### Possibility of Hazardous Reactions

<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions .</b>	No information available.

### Conditions to Avoid

Avoid dust formation, Excess heat, Incompatible products, Exposure to moist air or water.

### Incompatible Materials

Acids, Strong oxidizing agents, Aldehydes, Ketones.

### Hazardous Decomposition Products

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen. Oxides of boron.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

### Acute Toxicity

<b>Product Information</b>	No acute toxicity information is available for this product
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### Component Information

### Chronic Toxicity

<b>Carcinogenicity</b>	There are no known carcinogenic chemicals in this product
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<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	No information available
<b>Reproductive Effects</b>	No information available.

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## SECTION 11. TOXICOLOGICAL INFORMATION

Developmental Effects	No information available.
Target Organs	No information available.
Other Adverse Effects	The toxicological properties have not been fully investigated.
Endocrine Disruptor Information	None known

## SECTION 12. ECOLOGICAL INFORMATION

### Toxicity

Ecotoxicity effects	Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants
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### Persistence and degradability

No information available

### Bioaccumulative potential

No information available.

### Mobility in soil

No information available.

### Results of PBT and vPvB assessment

### Other adverse effects

No information available

## SECTION 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

Waste from Residues / Unused Products	Dispose of in accordance with local regulations
Contaminated Packaging	Empty containers should be taken to local recyclers for disposal

## SECTION 14. TRANSPORT INFORMATION

### IMDG/IMO

UN-No	3131
Hazard Class	4.3
Subsidiary Hazard Class	8
Packing Group	III

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## SECTION 14. TRANSPORT INFORMATION

**Proper Shipping Name** WATER-REACTIVE SOLID, CORROSIVE, N.O.S.

### ADR

**UN-No** 3131  
**Hazard Class** 4.3  
**Subsidiary Hazard Class** 8  
**Packing Group** III  
**Proper Shipping Name** WATER-REACTIVE SOLID, CORROSIVE, N.O.S.

### IATA

**UN-No** 3131  
**Hazard Class** 4.3  
**Subsidiary Hazard Class** 8  
**Packing Group** III  
**Proper Shipping Name** WATER-REACTIVE SOLID, CORROSIVE, N.O.S.\*

## SECTION 15. REGULATORY INFORMATION

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

#### International Inventories

#### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**CHINA** - China Inventory of Existing Chemical Substances  
**AICS** - Inventory of Chemical Substances  
**KECL** - Existing and Evaluated Chemical Substances

#### Chemical Safety Assessment

## SECTION 16. OTHER INFORMATION

#### **Full text of R-phrases referred to under sections 2 and 3**

R15 - Contact with water liberates extremely flammable gases  
R34 - Causes burns

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23-Mar-2012

**Revision Summary**

Not applicable

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**