

Revision Date 23-Mar-2012

Revision Number 2

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

Product Identifier

Product Description:
Cat No.

Sodium borodeuteride
194950000; 194950010; 194950050

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

Acute oral toxicity	Category 3
Skin Corrosion/irritation	Category 1 B
Substances/mixtures which, in contact with water, emit flammable gases.	Category 2

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
T - Toxic

R-phrases(s)

R15 - Contact with water liberates extremely flammable gases
R25 - Toxic if swallowed
R34 - Causes burns

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SECTION 2. HAZARDS IDENTIFICATION
Label Elements

Signal Word
Danger
Hazard Statements

H301 - Toxic if swallowed

H314 - Causes severe skin burns and eye damage

H260 - In contact with water releases flammable gases which may ignite spontaneously

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

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician

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

P280 - Wear eye protection/ face protection

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

P223 - Keep away from any possible contact with water, because of violent reaction and possible flash fire

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.
Sodium [2H4]tetrahydroborate(1-) 15681-89-7	EEC No. 239-764-7	98	15681-89-7	F; R15 T; R25 C; R34	Skin Corr. 1B (H314) Acute Tox. 3 (H301) Water-react. 2 (H261)	-

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

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.
Ingestion	Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
Notes to Physician	Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Dry chemical. approved class D extinguishers. clay. sodium carbonate.

Extinguishing media which must not be used for safety reasons

Water. Do not use halon type extinguisher. Carbon dioxide (CO₂). Foam.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

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

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Remove all sources of ignition. Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not flush into surface water or sanitary sewer system.

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. Handle under inert gas, protect from moisture. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from acids. Never allow product to get in contact with water during storage. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep away from oxidizing agents.

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 that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection

Goggles Face-shield

Hand Protection

Protective gloves

Skin and body protection

Long sleeved clothing

Respiratory Protection

A NIOSH/MSHA approved air purifying dust or mist respirator or European Standard EN 149

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

Off-white

Boiling Point/Range

No information available.

Melting Point/Range

300°C / 572°F

Flash Point

No information available.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Autoignition Temperature	400°C / 752°F
Molecular Formula	B D4 Na
Molecular Weight	41.86

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Reacts violently with water, liberating highly flammable gases. Hygroscopic.

Possibility of Hazardous Reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	No information available.

Conditions to Avoid

Burning produces obnoxious and toxic fumes, Protect from water, Excess heat, Incompatible products, Exposure to moist air or water.

Incompatible Materials

Strong oxidizing agents, Strong acids, Alcohols, Powdered metal salts.

Hazardous Decomposition Products

Hydrogen. Oxides of boron.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information	No acute toxicity information is available for this product
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Component Information

Chronic Toxicity

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



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SECTION 11. TOXICOLOGICAL INFORMATION

Developmental Effects	No information available.
Target Organs	No information available.
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	1426
Hazard Class	4.3
Packing Group	I
Proper Shipping Name	SODIUM BOROHYDRIDE

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SECTION 14. TRANSPORT INFORMATION

ADR

UN-No 1426
Hazard Class 4.3
Packing Group I
Proper Shipping Name SODIUM BOROHYDRIDE

IATA

UN-No 1426
Hazard Class 4.3
Packing Group I
Proper Shipping Name SODIUM BOROHYDRIDE

SECTION 15. REGULATORY INFORMATION

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

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Sodium [2H4]tetrahydroborate(1-)	239-764-7	-	-	-	-	-	-	-	-	X	X

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/NDSL - 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

Sodium borodeuteride**Revision Date** 23-Mar-2012**SECTION 16. OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

R15 - Contact with water liberates extremely flammable gases

R25 - Toxic if swallowed

R34 - Causes burns

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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