

**MATERIAL SAFETY DATA SHEET****CHEMICAL IDENTITY** sodium tetrahydroborate**1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER**

PRODUCT NAME: Peptide immobilizing kit (BCL-PIK-01)  
PRODUCT CODE: BCL-RSA-01  
CHEMICAL IDENTIFICATION: sodium tetrahydroborate  
CONTENT IN THE PRODUCT: 3mg  
RECOMMENDED USE: ELISA  
MANUFACTURER : Beacle Inc.  
SUPPLIER : Beacle Inc.  
Address: 14-1 Yoshida-Kawaracho, Sakyo-ku, Kyoto, Japan  
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**(THE BELOW DESCRIPTION IS APPLIED FOR THE IDENTIFIED CHEMICAL AT 100%)****2. HAZARDS IDENTIFICATION**

CLASSIFICATION: according to Regulation (EC) No 1272/2008

GHS CLASSIFICATION : PHYSICAL HAZARDS  
Substances and mixtures which, in contact with water, emit flammable gases  
Category 1  
HEALTH HAZARDS  
Acute toxicity (Oral) Category 3  
Acute toxicity (Dermal) Category 3  
Acute toxicity (Inhalation) Category 1  
Skin corrosion/irritation Category 1B  
Serious eye damage/eye irritation Category 1  
ENVIRONMENTAL HAZARDS Not classified

HAZARD SYMBOL :



SIGNAL WORD

danger

HAZARD STATEMENTS :

In contact with water releases flammable gases which may ignite spontaneously.  
Toxic if swallowed.  
Toxic in contact with skin.

PRECAUTIONARY STATEMENTS :

Causes severe skin burns and eye damage.  
Keep away from any possible contact with water, because of violent reaction and possible flash fire.  
Handle under inert gas. Protect from moisture.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
Store contents under inert gas.

HAZARD STATEMENTS

R-phrase(s)

R15 Contact with water liberates extremely flammable gases.  
R24/25 Toxic in contact with skin and if swallowed.  
R34 Causes burns.

S-phrase(s)

S22 Do not breathe dust.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S43 In case of fire, use sand.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

CHEMICAL IDENTITY : Sodium tetrahydridoborate  
FORMULA : H4BNa  
MOLECULAR WEIGHT : 37,83

CAS NUMBER :	16940-66-2
EC, INDEX NUMBER :	EC-No. 241-004-4
<b>4. FIRST AID MEASURES</b>	
GENERAL ADVICE :	Consult a physician. Show this safety data sheet to the doctor in attendance.
INHALATION :	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
SKIN CONTACT :	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
EYE CONTACT :	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
INGESTION :	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
<b>5. FIRE FIGHTING MEASURES</b>	
EXTINGUISHING MEDIA :	Dry powder Carbon dioxide (CO <sub>2</sub> )
Special hazards arising from the substance or mixture :	no data available
SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS :	Wear self contained breathing apparatus for fire fighting if necessary.
<b>6. ACCIDENTAL RELEASE MEASURES</b>	
PERSONAL PRECAUTIONS :	Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
ENVIRONMENTAL PRECAUTIONS :	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
METHODS FOR CLEANING UP :	Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. Keep in suitable, closed containers for disposal.
<b>7. HANDLING AND STORAGE</b>	
PRECAUTION FOR SAFE HANDLING :	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.
CONDITIONS FOR SAFE STORAGE :	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Air and moisture sensitive. Store under inert gas.
<b>8. EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	
ENGINEERING MEASURES :	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
INDIVIDUAL PROTECTION MEASURES ;	
Respiratory protection :	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Body Protection	Complete suit protecting against chemicals, Flame retardant protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Eye protection :	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection :	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
CONTROL PARAMETER :	Do not let product enter drains.
<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>	
APPEARANCE :	Powder(white)
ODOUR :	no data available
pH :	no data available
Melting point/freezing point :	no data available
INITIAL BOILING POINT :	no data available
FLASH POINT :	no data available
FLAMMABILITY (solid, gas) :	no data available
EXPLOSIVE LIMITS :	no data available
VAPOR PRESSURE :	no data available
SPECIFIC GRAVITY :	no data available
WATER SOLUBILITY:	55 g/l at 25 °C - soluble
PARTITION COEFFICIENT :	no data available
AUTOIGNITION TEMPERATURE :	no data available
DECOMPOSITION TEMPERATURE :	no data available
OXIDATIVE PROPERTY	no data available
EXPLOSIVE PROPERTY	no data available

**10. STABILITY AND REACTIVITY**

CHEMICAL STABILITY :	no data available
POSSIBILITY OF HAZARDOUS CONDITIONS TO AVOID :	Reacts violently with water. Exposure to moisture.
INCOMPATIBLE MATERIALS :	Oxidizing agents, Chemically active metals, acids, Reacts violently with water
HAZARDOUS DECOMPOSITION	Reacts with water to form: - Hydrogen gas

**11. TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY(oral/dermal/inhalation) :	LD50 Oral - rat - 162 mg/kg LD50 Dermal - rabbit - 230 mg/kg
SKIN CORROSION/IRRITATION :	Corrosive to skin (human)
EYE DAMAGE/EYE IRRITATION :	Corrosive to eyes (human)
RESPIRATORY OR SKIN SENSITIZATION :	no data available
GERM CELL MUTAGENICITY :	no data available
TOXIC TO REPRODUCTION :	no data available
CARCINOGENICITY :	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
ADDITIONAL INFORMATION ; RTECS:	ED3325000

**12. ECOLOGICAL INFORMATION**

ECOTOXICITY :	Toxicity to fish mortality LC50 - Gambusia affinis (Mosquito fish) - 5.600 mg/l - 96 h
PERSISTENCE AND DEGRADABILITY :	no data available
BIOACCUMULATION POTENTIAL :	no data available
MOBILITY IN SOIL :	no data available
OTHER ADVERSE EFFECTS :	no data available

**13. DISPOSAL CONSIDERATION (INCLUDING CONTAINER)**

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.  
Contaminated packaging: Dispose of as unused product.

**14. TRANSPORT INFORMATION**

UN NUMBER :	ADR/RID: 1426 IMDG: 1426 IATA: 1426
UN PROPER SHIPPING NAME :	ADR/RID: SODIUM BOROHYDRIDE IMDG: SODIUM BOROHYDRIDE IATA: Sodium borohydride Passenger Aircraft: Not permitted for transport
CLASS or DIVISION :	ADR/RID: 4.3 IMDG: 4.3 IATA: 4.3
PACKING GROUP :	ADR/RID: I IMDG: I IATA: I
ENVIRONMENTAL HAZARDS :	ADR/RID: no IMDG Marine pollutant: no IATA: no

**15. REGULATORY INFORMATION**

## EU REGULATIONS:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

Chemical Safety Assessment

no data available

**16. OTHER INFORMATION INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS**

No specific notes

The information described above is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. The product should be used by expert persons having knowledge and skill with their own risk. Beacle shall not be held liable for any damageresulting from handling or from contact with the above material.