



1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	PC-KLH (Keyhole Limpet Hemocyanin)
Base Catalog Number:	PC-1013
CAS-No. :	No data available
Identified uses :	For research and development use
Company:	Biosearch Technologies, Inc. 2199 South McDowell Blvd. Petaluma, CA 94954-6904 USA
Telephone:	+1.415.883.8400
Fax:	+1.415.883.8488
Emergency Phone #:	+1.800.424.9300 (US) +1.703.527.3887 (International)

2. HAZARDS IDENTIFICATION

2.1. GHS Hazard Statements

H303: May be harmful if swallowed.
H313: May be harmful in contact with skin.
H320: Causes eye irritation.
H333: May be harmful if inhaled.

2.2. GHS Precautionary Statements

P103: Read label before use.
P232: Protect from moisture.
P233: Keep container tightly closed.
P280: Wear protective gloves / protective clothing / eye protection / face protection.

2.3. GHS Response Statements

P301 + 330: IF SWALLOWED: Rinse mouth with water.
P302 + 350: IF ON SKIN: Gently wash with soap and water.
P304 + 340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + 351 + 338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so - continue rinsing.
P306 + 360: IF ON CLOTHING: Rinse contaminated clothing and skin immediately with plenty of water before removing clothes.
P314: Get medical advice / attention if you feel unwell.
P362: Take off contaminated clothing and wash before use.

2.4. GHS Storage and Disposal Phrases

P401 Store in a cool, dry place
P501: Dispose of contents / container in a safe way in accordance with all federal, state and local regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Synonyms	:	Phosphorylcholine Keyhole Limpet Hemocyanin
Formula	:	C11H17N3O4P-KLH
Molecular Weight	:	286.25

4. FIRST AID MEASURES

4.1. Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

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



The most important known symptoms and effects are described in the labeling in section 2 and/or in section 11

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

No data available

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use a Class A Extinguisher (Dry chemical, carbon dioxide, water or foam).

5.2. Special hazards arising from the substance or mixture

Oxides of nitrogen and carbon.

5.3. Advice for firefighters

Wear self-contained breathing apparatus (SCBA) for firefighting if necessary.

5.4. Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas.

For personal protection, see section 8.

6.2. Environmental precautions

Do not let product enter drains

6.3. Methods and materials for containment and cleaning up

Sweep up and shovel. Finish by wiping with a damp towel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

For disposal, see section 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions, see section 2.2.

7.2. Conditions for safe storage, including any incompatibles.

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: +5°C, desiccated

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

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 glove after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work place. The type of protective equipment must be selected according to the concentration and amount of dangerous substances, and to the specific work place.

Respiratory protection



Respiratory protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

a) Appearance (physical state, color, etc.)	orange powder
b) Odor	No data available
c) Odor threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	No data available
l) Vapor density	No data available
m) Relative density	No data available
n) Solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2. Other safety information

No data available

10. STABILITY AND REACTIVITY**10.1. Reactivity**

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Other decomposition products- no data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Acute toxicity**

No data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available



Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: 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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity- single exposure

No data available

Specific target organ toxicity-repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results and PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product

14. TRANSPORTATION INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components



SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

LGC Biosearch Technologies' laboratory chemicals are for research purposes only and are not intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all-inclusive and should only be used as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we cannot guarantee that those are the only hazards that exist. Our SDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods as the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.

Revision Date: 4 May 2015