1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers
- **Product name**: L-α-phosphatidylinositol-4,5-bisphosphate (Brain, Porcine) (ammonium salt)
- **Product Number**: 840046P
- **Brand**: AVANTI

1.2 Relevant identified uses of the substance or mixture and uses advised against
- **Identified uses**: Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet
- **Company**: Avanti Polar Lipids, INC
  700 Industrial Park Drive
  Alabaster, AL 35007
  United States of America
- **Telephone**: (205) 663-2494
- **Fax**: (205) 663-0756

1.4 Emergency telephone number
- **Emergency Phone #**: +1 703-741-5970 / 1800-424-9300(CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
- Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements
- Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
- **Synonyms**: Brain PI(4,5)P2
- **Molecular weight**: 1,098.2 g/mol

No components need to be disclosed according to the applicable regulations.
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 labelling (see section 2.2) 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 water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
No data available

5.3 Advice for firefighters
Wear self-contained breathing apparatus 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 vapours, mist or gas.
For personal protection see section 8.

6.2 Environmental precautions
No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. 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
Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature -25 - -15 °C
Keep in a dry place.
Storage class (TRGS 510): 13: Non Combustible Solids
7.3 **Specific end use(s)**
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. **EXPOSURE CONTROLS/PERSOANL 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 gloves 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 the dangerous substance at the specific workplace.

*Respiratory protection*
Respiratory protection is not required. Where protection from nuisance levels of dusts 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*
No special environmental precautions required.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 **Information on basic physical and chemical properties**

a) **Appearance**
Form: powder
Colour: off-white

b) **Odour**
No data available

c) **Odour 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) **Vapour pressure**
No data available

l) **Vapour density**
No data available

m) **Relative density**
No data available
n) Water solubility 10 g/l - soluble
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
No data available

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity
Skin corrosion/irritation
Serious eye damage/eye irritation
Respiratory or skin sensitisation
Germ cell mutagenicity
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.

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

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

Reproductive toxicity
Specific target organ toxicity - single exposure
Specific target organ toxicity - repeated exposure

Aspiration hazard
Additional Information
RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.2 Persistence and degradability

12.3 Bioaccumulative potential

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment
    PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

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. TRANSPORT INFORMATION

    DOT (US)
    Not dangerous goods

    IMDG
    Not dangerous goods

    IATA
    Not dangerous goods

15. REGULATORY INFORMATION

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

    SARA 313 Components
    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.

    SARA 311/312 Hazards
    No SARA Hazards

    Massachusetts Right To Know Components
    No components are subject to the Massachusetts Right to Know Act.

    Pennsylvania Right To Know Components

        L-alpha-Phosphatidyl-D-myo-inositol-4,5-bisphosphate, Triammonium Salt, Bovine Brain
        CAS-No. 383907-42-4
        Revision Date

    New Jersey Right To Know Components

        L-alpha-Phosphatidyl-D-myo-inositol-4,5-bisphosphate, Triammonium Salt, Bovine Brain
        CAS-No. 383907-42-4
        Revision Date

    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

HMIS Rating
Health hazard: 0
Chronic Health Hazard:
Flammability: 0
Physical Hazard 0

NFPA Rating
Health hazard: 0
Fire Hazard: 0
Reactivity Hazard: 0

Further information
Copyright 2016 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information
Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 5.1 Revision Date: 11/28/2017 Print Date: 11/15/2018