MATERIAL SAFETY DATA SHEET

1. Chemical product and company identification

A. Product name: ApepAHP-5(0.05%)

B. Manufacturer/Supplier/Distributor Information

Manufacturer Name : A&PEP Inc.
Section : Institute of Research Center

Address: 13, Oksansandan 1-ro, Oksan-myeon, Heungdeok-gu,

Cheongju-si, Chungcheongbuk-do, Republic of Korea

Telephone number: 82-43-241-3360~2

Fax number: 82-43-241-3365

2. Hazards identification

A. Additional safety information for humans and the environment :Not applicable

B. Allocation label elements

a.Symbol: Not applicable

b.Signal word: Not applicable

c.Hazard statements: Not applicable

d.Precautionary statements-Prevention: Not applicable

-Response : Not applicable

-Storage : Not applicable

-Disposal: Not applicable

3. Composition and Information on Ingredients

A. Trade Name: ApepAHP-5(0.05%)

B. Single product or mixture: Mixture

C. All Ingredient information(INCI & CAS no.)

Total	Cas No.	100.00(%)
Water	7732-18-5	87.45
Butylene Glycol	107-88-0	12.00
Acetyl Hexapeptide-8	616204-22-9	0.05
Caprylyl glycol	1117-86-8	0.25
1,2-Hexanediol	6920-22-5	0.25

4. First aid measures

A. Eye Contact

-If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.

B. Skin Contact

- Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before re-use.

C. Inhalation

- If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if breathing dificulty continues.

D. Ingestion

- If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or MSDS with the victim to the health professional.

5. Fire fighting measures

- A. Suitable(and unsuitable) extinguishing media
- Not considered to be a fire hazard.
- B. Specific hazards arising from the chemical
- Oxides of nitrogen, oxides of carbon
- C. Special protective equipment and precautions for fire-fighters
 - Move containers from fire area if you can do it without risk.
 - Do not distribute the spilled material using high-pressure water stream.
 - Keep using the appropriate fire suppression material.
 - Make standing downwind to avoid the inhalation of harmful vapors.

6. Accidental release measures

- If eye exposure to powder is likely, use tight fitting chemical safety goggles.
 Maintain eye wash fountain and quick-drench facilities in work area. Boots, aprons or chemical suits should be used when necessary to prevent skin contact.
- -Sweep up or washing with warm water.

7. Handling and Storage

- A. Handling: Wash hands after use. Avoid storage near feed or food stuffs.
- B. Storage: Don't expose to high temperature, sunlight and ultraviolet rays.

 Keep in the place where an infant does not reach.

8. Exposure controls and personal protection

- A. Exposure standard of chemical substance, Biology Exposure standard etc
- Not applicable
- B. Appropriate Engineering Controls
- C. Personal protection
 - a. Respiratory Protections
 - Use of wear appropriate respirator.
 - b. Eye protection
 - Use of goggle.
 - c. Hands protection
 - Use of gloves
 - d. Body protection
 - Boots, aprons or chemical suits should be used when necessary to prevent skin contact.

9. Physical and chemical properties

- A. Appearance(physical state, colour etc.)
- Clear to Slightly Hazy Liquid
- B. Odor Odorless
- Characteristic odor
- C. Odor threshold
- No information found.
- D. pH
- 4.0~6.0
- E. Melting/Freezing Point
 - No information found.
- F. Initial boiling point/freezing point
 - No information found.
- G. Flash point
 - No information found.
- H. Evaporation rate
 - No information found.
- I. Flammability(Solid, Liquid)
 - No information found.
- J. Upper/lower flammability or explosive limits
 - No information found.
- K. Vapor pressure
 - No information found.
- L. Solubility
 - No information found.
- M. Vapor density

- No information found.
- N. Relative density
 - 0.98~1.10
- O. N-octanol/Water partition coefficient
 - No information found.
- P. Autoignition temperature
 - No information found.
- Q. Decomposition temperature
 - No information found.
- R. Viscosity
 - No information found.

10. Stability and Reactivity

- A. Chemical stability, and the possibility of adverse reactions.
 - No information found.
- B. Conditions to avoid (electrostatic discharge, shock, vibration, etc.).
 - Avoid contact with heat, sparks, open flame or other sources of ignition.
- C. Substances to be avoided.
 - No information found.
- D. Hazardous decomposition products.
 - Oxides of nitrogen, oxides of carbon.

11. Toxicological Information

- A. Information on the Likely Routes of Exposure
- a. Inhalation through the respiratory organs
- -No information found.
- b. Ingestion through the mouth
- -No information found.
- B. Health hazard information.
- a. Acute toxicity(including all likely routes of exposure)
- Oral: No information found.
- Skin: No information found.
- Inhalation: No information found.
- Skin corrosiveness/sensitiveness: No information found.
- Serious eye damage/sensitiveness: No information found.
- Respiratory sensitiveness: No information found.
- Skin sensitiveness: No information found.
- Carcinogenicity: No information found.
- Germ cell mutagenicity: No information found.
- Medical conditions Aggravates: No information found.

12. Ecological Information

- A. Aquatic, Terrestrial Ecological Toxicity
 - No information found.
- B. Remaining/Resolvability
 - No information found.
- C. Bioconcentration factor
 - No information found.
- D. Mobility in Soil
 - No information found.
- E. Other Adverse Effects
 - No information found.

13. Disposal considerations

- A. Disposal methods
 - incineration
- B. Disposal considerations
 - Use caution considerations set forth in the regulations specified in the Waste Management Act.

14. Transport Information

- A. UN Number
 - No information found.
- B. UN Proper Shipping Name
 - No information found.
- C. Transport hazard class
 - No information found.
- D. Hazardous Chemicals Rating in Shipment
 - No information found.
- E. Environmental hazards
 - No information found.
- F. Special Safety Measures Which a User Needs to Know in Relation to Transport or its Means.
 - No information found.
- G. IATA Regulation
 - No information found.

15. Regulatory information

- A. Regulations by Industrial Safety and Health
 - Not applicable.
- B. Regulations by Toxic Chemicals Control
 - No information found.
- C. Regulations by Hazards Safety Control

- No information found.
- D. Regulations by Wastes Control
 - No information found.
- E. Regulations by Other Domestic and International Law
 - No information found.

16. Other information.

- A. Reference
- A&PEP Inc. Institute of Research Center
- B. Date of the first preparation: 2013-03-05
- $\ensuremath{\text{C.}}$ Number of revision and the final revised date
 - The final revised date 2018-03-01
- D. Other No information found.
 - This MSDS document is prepared by A&PEP Inc. and official authentication is pending. Therefore you may contact our lab. staff for the further information.