Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCES/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifiers

Product Code(s)  HB0225

Product Name  D-AP5

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use  For research use only – Not for human use

Uses advised against  No information available

1.3. Details of the supplier of the safety data sheet

Supplier

HelloBio Ltd
Unit 3 IO Centre
Cabot Park
Moorend Farm Avenue
Avonmouth
Bristol
BS11 0QL
UK
Tel: +44 (0)117 318 0505
Fax: +44 (01179 811 601

For further information, please contact: technicalsupport@hellobio.com

1.4. Emergency Telephone number

Emergency telephone  - Tel: +44 (0)117 318 0505

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

GHS/CLP – REGULATION (EC) No 1272/2008

Skin corrosion/irritation  Category 2
Serious eye damage/eye irritation  Category 2
Specific target organ systemic toxicity (single exposure)  Category 3

DSD/DPD – Classification according to EU Directives 67/548/EEC or 1999/45/EC

Xi – Irritant

R36/37/38 – Irritating to eyes, respiratory system and skin

2.2. Label Elements
Signal Word
Warning

Hazard Statements
H315 – Causes skin irritation
H319 – Causes serious eye irritation
H355 – May cause respiratory irritation

Precautionary Statements
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P332 + P313 - If skin irritation occurs: Get medical advice/ attention
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P280 - Wear protective gloves/ eye protection/ face protection
P264 - Wash face, hands and any exposed skin thoroughly after handling
P312 - Call a POISON CENTER or doctor/ physician if you feel unwell
P271 - Use only outdoors or in a well-ventilated area
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P362 - Take off contaminated clothing and wash before reuse

2.3. Other hazards
Caution – substance not yet completely tested

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances
Product Name: D-AP5
Synonyms: D-APV, 2-APV, D(-)-2-Amino-5-phosphopentanoic acid
Formula: $\text{C}_5\text{H}_{12}\text{NO}_5\text{P}$ Molecular Weight: 197.13
CAS Number 79055-68-8

4. FIRST AID MEASURES

4.1. Description of first aid measures
General advice If symptoms persist, call a physician.
Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.
Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Ingestion Rinse mouth. If symptoms persist, call a physician
Inhalation Move to fresh air. If symptoms persist, call a physician.

4.2. Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

4.3. Indication of immediate medical attention and special treatment needed
Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
5. FIRE-FIGHTING 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

In combustion, may emit toxic fumes.

5.3. Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Do not take action without suitable protective clothing – see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapours, mist, dust or gas.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and materials for containment and cleaning up

Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

6.4. Reference to other sections

For required PPE see section 8. For disposal see section 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Recommended storage temperature: Store at RT

7.3. Specific end uses

Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

<table>
<thead>
<tr>
<th>Exposure Limits</th>
<th>Derived No Effect Level</th>
<th>Predicted No Effect Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>National occupational exposure limits</td>
<td>No information available</td>
<td>No information available</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

**Appropriate engineering controls**
Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

**Personal protective equipment**

**Eye/face protection**
Use appropriate safety glasses.

**Skin protection**
Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

**Body protection**
Wear appropriate protective clothing.

**Respiratory protection**
If risk assessment indicates necessary, use a suitable respirator.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White Solid</td>
</tr>
<tr>
<td>Odour</td>
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</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other safety information
No data available

10. **STABILITY AND REACTIVITY**

10.1. Reactivity
Stable under recommended transport or storage conditions.

10.2. Chemical Stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
Hazardous reactions will not occur under normal transport or storage conditions.

10.4. Conditions to avoid
Heat, moisture

10.5. Incompatible materials
Strong acids/alkalis, strong oxidising/reducing agents.

10.6. Hazardous decomposition products
Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NOx), Phosphorous oxides.

11. **TOXICOLOGICAL INFORMATION**

11.1. Information on toxicological effects

**Acute Toxicity**

**Product Information**
Irritating to skin, eyes and / or respiratory tract.

**Inhalation**
May cause irritation of respiratory tract.

**Eye contact**
May cause irritation

**Skin contact**
May cause irritation

**Ingestion**
Ingestion may cause irritation to mucous membranes
**12. ECOLOGICAL INFORMATION**

12.1. Toxicity

Ecotoxicity effects
As supplied, the preparation is not expected to present significant adverse environmental effects

12.2. Persistence and degradability
No Information available

12.3. Bioaccumulative potential
No Information available

12.4. Mobility in soil
No Information available

12.5. Results of PBT and vPvB assessment
No Information available

12.6. Other adverse effects
No Information available

**13. DISPOSAL CONSIDERATIONS**

13.1. Waste treatment methods

Waste from residues/unused products
Dispose of in accordance with local regulations

Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal.

Other information
According to the European Waste Catalogue. Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

**14. TRANSPORT INFORMATION**

ADR
Not dangerous goods

IATA
Not dangerous goods

DOT
Not dangerous goods

**15. REGULATORY INFORMATION**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
No information available

15.2. Chemical Safety Assessment
No information available
16. OTHER INFORMATION

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

Disclaimer
The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless stated in the text.