Safety Data Sheet

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

1.1. Product Identifiers
Product Code(s)            HB2494
Product Name               17 β-Estradiol

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

1.1. Details of the supplier of the safety data sheet
Supplier
HelloBio Ltd
Unit 3 IO Centre
Cabot Park
Moorend Farm Avenue
Avonmouth
Bristol
BS 11 0QL
UK
Tel: +44 (0)117 318 0505
Fax: +44 (01179 811 601

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

1.2. Emergency Telephone number
Emergency telephone - Tel: +44 (0)117 318 0505

1.3. HAZARDS IDENTIFICATION

1.4. Classification of the substance or mixture
GHS/CLP – REGULATION (EC) No 1272/2008
Carcinogenicity            Category 1A
Reproductive toxicity      Category 1B
Effects on or via lactation Effects on or via lactation

DSD/DPD – Classification according to EU Directives 67/548/EEC or 1999/45/EC
Xn – Harmful
R22 – Harmful if swallowed
1.5. Label Elements

Signal Word
Danger

Hazard Statements
H350 - May cause cancer
H360 - May damage fertility or the unborn child
H362 - May cause harm to breast-fed children

Precautionary Statements
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P263 - Avoid contact during pregnancy/while nursing
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P281 - Use personal protective equipment as required
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P501 - Dispose of contents/container to an approved waste disposal plant
P405 - Store locked up

1.6. Other hazards
Caution – substance not yet completely tested

2. COMPOSITION/INFORMATION ON INGREDIENTS

2.1. Substances
Product Name: Dexamethasone (water soluble)
Synonyms:
Formula: C\textsubscript{18}H\textsubscript{24}O\textsubscript{2}
CAS Number 50-28-2
Molecular Weight: 272.38

3. FIRST AID MEASURES

3.1. 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.

3.2. 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.
3.3. Indication of immediate medical attention and special treatment needed
Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

4. FIRE-FIGHTING MEASURES
4.1. Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

4.2. Special hazards arising from the substance or mixture
In combustion, may emit toxic fumes.

4.3. Precautions for fire-fighters
Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

5. ACCIDENTAL RELEASE MEASURES
5.1. 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.

5.2. Environmental precautions
Do not let product enter drains.

5.3. 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.

5.4. Reference to other sections
For required PPE see section 8. For disposal see section 13.

6. HANDLING AND STORAGE
6.1. 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.

6.2. 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 -20°C

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

7. EXPOSURE CONTROLS/PERSONAL PROTECTION
7.1. Control parameters
Components with workplace control parameters
Contains no substances with occupational exposure limit values.

7.2. 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.

8. PHYSICAL AND CHEMICAL PROPERTIES
8.1. Information on basic physical and chemical properties

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

8.2. Other safety information
No data available

9. STABILITY AND REACTIVITY
9.1. Reactivity
Stable under recommended transport or storage conditions.

9.2. Chemical Stability
Stable under recommended storage conditions.

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

9.4. Conditions to avoid
Heat, flames and sparks

9.5. Incompatible materials
None in particular

9.6. Hazardous decomposition products
Carbon monoxide (CO), Carbon dioxide (CO₂)

10. TOXICOLOGICAL INFORMATION
10.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Information available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>No Information available</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No Information available</td>
</tr>
<tr>
<td>Eye contact</td>
<td>No Information available</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No Information available</td>
</tr>
<tr>
<td>Property</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No Information available</td>
</tr>
<tr>
<td>Chronic toxicity</td>
<td>May cause cancer. California – Proposition 65 – Carcinogens list</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>No Information available</td>
</tr>
<tr>
<td>Sensitization</td>
<td>No Information available</td>
</tr>
<tr>
<td>Neurological effects</td>
<td>No Information available</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Product is or contains a chemical which is a known or suspected reproductive hazard</td>
</tr>
<tr>
<td>Mutagenic effects</td>
<td>Possible risk of irreversible effects</td>
</tr>
<tr>
<td>Developmental Toxicity</td>
<td>Contains ingredients that have suspected developmental hazards. Possible risk of harm to the unborn child. May cause birth defects</td>
</tr>
<tr>
<td>Target Organ Effects</td>
<td>No Information available</td>
</tr>
</tbody>
</table>

11. ECOLOGICAL INFORMATION

11.1. Toxicity

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

11.2. Persistence and degradability
No Information available

11.3. Bioaccumulative potential
No Information available

11.4. Mobility in soil
No Information available

11.5. Results of PBT and vPvB assessment
No Information available

11.6. Other adverse effects
No Information available

12. DISPOSAL CONSIDERATIONS

12.1. 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.

13. TRANSPORT INFORMATION

ADR                      Not dangerous goods

IATA                     Not dangerous goods
14. REGULATORY INFORMATION

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

14.2. Chemical Safety Assessment
No information available

15. 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.