



# Safety Data Sheet

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

- 1.1. **Product Identifiers**  
**Product Code(s)** HB6040  
**Product Name** 70% Z-4-hydroxytamoxifen
- 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

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 (0)1179 811 601

For further information, please contact: [technicalsupport@hellobio.com](mailto: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**
- |                                       |             |
|---------------------------------------|-------------|
| Acute Oral toxicity                   | Category 4  |
| Acute Dermal toxicity                 | Category 4  |
| Acute inhalation toxicity – dust/mist | Category 4  |
| Skin Irritation                       | Category 2  |
| Eye irritation                        | Category 2A |
| Reproductive toxicity                 | Category 2  |
- 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. GHS Label elements, including precautionary statements



### Signal Word

Warning

### Hazard Statements

H302 – Harmful if swallowed

H312 – Harmful in contact with skin

H332 – Harmful if inhaled

H361 – Suspected of damaging fertility or the unborn child

### Precautionary Statements

P301 + P312 – IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell

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

P308 + P313 - If Exposed or concerned: 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

P501 - Dispose of contents/ container to an approved waste disposal plant

P405 - Store locked up

P362 - Take off contaminated clothing and wash before reuse

## 2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

Caution – substance not yet completely tested

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Product Name: 70% Z-hydroxytamoxifen

Synonyms:

Formula:  $C_{26}H_{29}NO_2$

Molecular Weight: 387.52

CAS Number 68392-35-8

EC-N 627-097-8

Component	Classification	Concentration
4-Hydroxytamoxifen	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; Repr. 2;	< 100%

## 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.

<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Ingestion</b>	Rinse mouth. If symptoms persist, call a physician
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
<b>4.3. Indication of immediate medical attention and special treatment needed</b>	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 -20°C
- 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

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### 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

Appearance	Off-white solid	Vapour pressure	No data available
Odour	No data available	Vapour density	No data available
Odour threshold	No data available	Relative density	No data available
pH	No data available	Solubility(ies)	Dimethylsulfoxide Ethanol
Melting/freezing point	No data available	Partition coefficient	No data available
Boiling point/range	No data available	Auto-ignition temperature	No data available
Flash Point	No data available	Decomposition temperature	No data available
Evaporation rate	No data available	Viscosity	No data available
Flammability (solid, gas)	No data available	Explosive properties	No data available
Upper/lower flammability or explosive limits	No data available	Oxidising properties	No data available

### 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 (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>).

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute Toxicity

##### Inhalation

Irritating to respiratory system (Inhalation - 4 h - 1.5 mg/l - dust/mist)

##### Eye contact

Causes serious eye irritation

##### Skin contact

estimate 1,100 mg/kg

##### Ingestion

estimate 500.1 mg/kg

#### Chronic toxicity

##### Corrosivity

No Information available

##### Sensitization

No Information available

##### Neurological effects

No Information available

##### Reproductive toxicity

Suspected of damaging the unborn child.

Suspected of damaging fertility.

##### Mutagenic effects

No Information available

##### Target Organ Effects

No Information available

## 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

SARA 302 Components This material does not contain any components with a section 302 EHS TPQ.

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 Acute Health Hazard, Chronic Health Hazard

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

### 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.