SAFETY DATA SHEET

This Safety Data Sheet (SDS) has been prepared in accordance with GB/T16483-2008. Classifications of this product and its components are in accordance with GB13690-2009.

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name	**Catalogue Number**
Total Aflatoxin Rapid ELISA	KIT5007

Helica® ELISA kits – Contain various components of low risk to a trained operator.

Components:
Coated plates
Standards
Conjugate
Stop solution
Substrate buffer
Wash buffer

1.2 Use of the substance/preparation

A competitive enzyme-linked immunoassay intended for the rapid quantitative detection of aflatoxin B1, B2, G1, and G2 in grains, nuts, cottonseeds, cereals, and other commodities including animal feeds.

1.3. Details of the supplier of the safety data sheet

BioChek (UK) Limited
Unit 5 Kings Ride Park
Kings Ride
Ascot
Berkshire
SL5 8BP
Tel: +0044 (0)208 893 3000 (operating hours 09.00-17.00 GMT)

1.4. Emergency Telephone

Tel: +0044 (0)208 893 3000 (operating hours 09.00-17.00 GMT)

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

Outer kit

Classification according to GB13690-2009: Flam Liq 2: H225; Acute Tox Oral 3: H301; Acute Tox Dermal 3: H311; Skin Sens 1A: H317; Acute Tox Inhal 3: H331; STOT-SE 1: H370; Aqu Chron 2: H411

Most important adverse effects:
Highly flammable liquid and vapour.
Toxic if swallowed.
Toxic in contact with skin.
Toxic if inhaled.
Causes damage to organs (optic nerve, CNS).
May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

Coated plate and conjugate

Classification according to GB13690-2009: Skin Sens 1A: H317; Aqu Chron 2: H411

Most important adverse effects:
May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

Standards

Classification according to GB13690-2009: Flam Liq 2: H225; Acute Tox Oral 3: H301; Acute Tox Dermal 3: H311; Acute Tox Inhal 3: H331; STOT-SE 1: 370

Most important adverse effects:
Highly flammable liquid and vapour.
Toxic if swallowed.
Toxic in contact with skin.
Toxic if inhaled.
Causes damage to organs (optic nerve, CNS).

Substrate buffer, wash buffer and stop solution

Classification according to GB13690-2009: Not classified.

Most important adverse effects: Not applicable.

2.2 Label Elements
Label elements according to GB13690-2009

Outer kit

GHS02, GHS06, GHS07, GHS08, GHS09

Signal word: Danger

Hazard statement(s):
H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H317 May cause an allergic skin reaction.
H331 Toxic if inhaled.
H370 Causes damage to organs (optic nerve, CNS).
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s):
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 + P242 + P243: Use explosion-proof electrical/ventilating/light equipment. Use only non-sparking tools. Take action to prevent static discharges.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
P391 Collect spillage.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulation.
P301 + P310 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a doctor/ physician.
P302 + P352: IF ON SKIN: Wash with soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a doctor/physician.
P309 + P311: IF exposed or you feel unwell: Call a POISON CENTER or doctor/physician.
P313 + P333: If skin irritation or a rash occurs: Get medical advice/attention.
P370 + P378: In case of fire: Use dry chemical, carbon dioxide, water spray or alcohol-resistant foam to extinguish.
P233 + P403: Store in a well-ventilated place. Keep container tightly closed.

Other Hazards:	This substance/ mixture contains no components considered to be either persistent, bioaccumulative and toxic, or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

<u>Coated plate and conjugate</u>

Pictogram:	GHS07, GHS09

Signal word:	Warning
Hazard statement(s):	H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects.

<u>Standards</u>

Pictogram:	GHS02, GHS06, GHS08

Signal word:	Danger
Hazard statement(s):	H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H311 Toxic in contact with skin. H331 Toxic if inhaled. H370 Causes damage to organs (optic nerve, CNS).

<u>Substrate buffer, wash buffer and stop solution</u>
None.

2.3 Other hazards
None reasonably foreseeable.

SECTION 3: Composition/information on ingredients

Coated plate

Component	CAS-No.	EC-No.	Concentration	Classification
Sodium carbonate	497-19-8	207-838-8	≤1.0%	Eye Dam/Irr (Category 2); H319
Proclin 300 / Isothiazolinone / MIT / Kathon CG	96118-96-6	611-341-5	≤0.1%	Acute tox Oral (Category 4); Acute tox Dermal (Category 2); Acute tox inhal (Category 2); Skin Corr/Irr (Category 1C); Eye Damage (Category 1); Skin Sens (Category 1A); Aqu Acute (Category 1); Aqu Chronic (Category 1); H302, H310, H314, H317, H318, H330, H400 (M-factor 100), H410 (M-factor 100)
Potassium chloride	7440-09-7	231-119-8	≤0.1%	Skin Corr/Irr (Category 1C); Eye Damage (Category 1); Water-React (Category 1); H260, H314, H318

Standards

Component	CAS-No.	EC-No.	Concentration	Classification
Methanol	67-56-1	200-659-6	50 – 75%	Flam Liq (Category 2); Acute tox oral (Category 3); Acute tox Dermal (Category 3); Acute tox inhal (Category 3); STOT-SE (Category 1)

Conjugate

Component	CAS-No.	EC-No.	Concentration	Classification
Green food dye	2353-45-9	219-091-5	<1.0%	STOT-SE 3, resp irrit (Category 3); H335
Proclin 300 / Isothiazolinone / MIT / Kathon CG	96118-96-6	611-341-5	≤0.1%	Acute tox Oral (Category 4); Acute tox Dermal (Category 2); Acute tox inhal (Category 2); Skin Corr/Irr (Category 1C); Eye Damage (Category 1); Skin Sens (Category 1A); Aqu Acute (Category 1); Aqu Chronic (Category 1); H302, H310, H314, H317, H318, H330, H400 (M-factor 100), H410 (M-factor 100)

Stop solution

Component	CAS-No.	EC-No.	Concentration	Classification
Phosphoric acid 85%	7664-38-2	231-633-2	1-5%	Skin Corr/Irr (Category 1B); Eye Damage (Category 1); H314, H318

SECTION 4: First Aid measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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 section 11.

4.3 Indication of immediate medical attention and special treatment needed
No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Use water spray, alcohol-resistant foam, dry powder, or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
During heating or in case of fire poisonous gases are produced.

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment (see section 8).

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter the drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage temperature 2-8^{o}C.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Phosphoric acid 85%	7664-38-2	LTEL	1.0 mg/m^3	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
	Remarks	Identifies the possibility of significant uptake through the skin. Indicative.		
		STEL	2.0 mg/m^3	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
		Identifies the possibility of significant uptake through the skin. Indicative.		
		LT 8h TWA	1.0 mg/m^3	UK. EH40 WEL – Workplace Exposure Limits
		ST 15m ref	2.0 mg/m^3	UK. EH40 WEL – Workplace Exposure Limits

Component	CAS-No.	Value	Control parameters	Basis
Methanol	67-56-1	LTEL	260 mg/m^3 200 ppm	Europe. Commission Directive 98/24/EC establishing a second list of indicative occupational exposure limit values
	Remarks	Identifies the possibility of significant uptake through the skin. Indicative.		
		LT 8h TWA	260 mg/m^3 200 ppm	UK. EH40 WEL – Workplace Exposure Limits
		ST 15m ref	250 mg/m^3 333 ppm	UK. EH40 WEL – Workplace Exposure Limits
	Remarks	Can be absorbed through the skin.		

8.2 Exposure Controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

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 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.
The selected protective gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection
Long sleeved clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

While handling according to the intended use no respiratory protection is necessary.

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

	Coated plates	Standards	Conjugate	Stop solution	Substrate buffer	Wash buffer
Physical State	Plastic plate	Liquid	Liquid	Liquid	Liquid	Liquid
Colour	Clear / white	Clear	Green	Clear	Clear	Clear
Odour	No data available	No data available	No data available	No data available	No data available	No data available
pH	Not applicable	No data available	No data available	No data available	No data available	No data available
Boiling Point	No data available	No data available	No data available	No data available	No data available	No data available
Freezing point	No data available	No data available	No data available	No data available	No data available	No data available
Flammability	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Upper/ lower explosion limit/ flammability limit	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Flash point	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Auto-ignition temperature	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Decomposition temperature	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Viscosity	No data available	No data available	No data available	No data available	No data available	No data available
Solubility	Insoluble	Soluble	Soluble	Soluble	Soluble	Soluble
Partition coefficient n-octanol/ water	No data available	No data available	No data available	No data available	No data available	No data available
Vapour pressure	No data available	No data available	No data available	No data available	No data available	No data available
Density	No data available	No data available	No data available	No data available	No data available	No data available
Relative vapour density	No data available	No data available	No data available	No data available	No data available	No data available
Particle characteristics	No data available	No data available	No data available	No data available	No data available	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable until expiry date under storage conditions detailed on labels.

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
No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

ATE Oral (Category 3):	100 mg/kg bw
ATE Dermal (Category 3):	300 mg/kg bw
ATE Inhalation (Category 3):	700 ppmV (gases) 3 mg/L (vapours) 0.5 mg/L (dusts/mists)

Skin corrosion/irritation

Coated plates, Standards, Conjugate, Substrate buffer, Wash buffer and Stop solution

No data available

Serious eye damage/eye irritation

Coated plates, Standards, Conjugate, Substrate buffer, Wash buffer and Stop solution

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

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.

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure
Coated plates, Conjugate, Substrate buffer, Wash buffer and Stop solution
No data available
Standards
Causes damage to organs (optic nerve, CNS).

Specific target organ toxicity – repeated exposure
No data available

Aspiration hazard
No data available

Additional information
RTECS: Not available

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

SECTION 12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and biodegradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
These substances/mixtures contain no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effect
Coated plates, Standards, Conjugate
Contains Proclin 300/Isothiazolinone/MIT/Kathon CG (CAS 96118-96-6) which is very toxic to aquatic life with long lasting effects.

Stop solution, Substrate buffer and Wash buffer
None reported

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional, or national/federal regulations.

SECTION 14: Transport information

14.1 UN number

UN3316

14.2 UN proper shipping name

Chemical test kit

14.3 Transport hazard classes

9

14.4 Packaging group

III

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Tunnel restriction code E

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of GB/T16483-2008 and GB13690-2009.

15.2 Chemical safety assessment

No Chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations:

ATE Acute toxicity estimate
IARC International Agency for Research on Cancer
LTEL Long-term exposure limit
OEL Occupational exposure limit
PBT Persistent, bioaccumulative and toxic
RTECS The Registry of Toxic Effects of Chemical Substances
STEL Short-term exposure limit
TWA Time-weighted average
vPvB Very persistent and very bioaccumulative

H-statements:

H260 In contact with water releases flammable gases which may ignite spontaneously.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H310 Fatal in contact with skin.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H370 Causes damage to organs (optic nerve, CNS).
H371 May cause damage to organs (optic nerve, CNS).
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long-lasting effects.
H411 Toxic to aquatic life with long-lasting effects.

Additional information

Not applicable.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all-inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"