

SAFETY DATA SHEET

This Safety Data Sheet (SDS) complies with the requirements of OSHA hazard communication standard 1910.1200 2015.

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

1.1 Product Identifier

Product Name

Aflatoxin B1 Low Matrix ELISA

Catalogue Number

KIT5005

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

Components:

- Coated plates
- Standards
- Conjugate
- Assay diluent
- Stop solution
- Substrate buffer
- Wash buffer

1.2 Use of the substance/preparation

A competitive enzyme-linked immunoassay for the quantitative detection of Aflatoxin B1 in grains, nuts, cottonseed, cereals, and all commodities which are difficult to measure due to high matrix effects such as silage and most spices.

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 1910.1200 2015:

Flam Liq 3: H226; Acute Tox Oral 3: H301; Acute Tox Dermal 3: H311; Skin Irr 2: H315; Skin Sens 1A: H317; Eye Irr 2: H319; Acute Tox Inhal 3: H331; STOT-SE 1: H370

Most important adverse effects:

Flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
Toxic if swallowed.
Toxic in contact with skin.
Toxic if inhaled.
Causes damage to organs (optic nerve, CNS).
May cause an allergic skin reaction.

Coated plate and conjugate

Classification according to 1910.1200 2015:

Skin Sens 1A: H317

Most important adverse effects:

May cause an allergic skin reaction.

Assay diluent

Classification according to 1910.1200 2015:

Skin Irr 2: H315; Skin Sens 1A: H317; Eye Irr 2: H319

Most important adverse effects:

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.

Standards

Classification according to 1910.1200 2015:

Flam Liq 3: H226; Acute Tox Oral 3: H301; Acute Tox Dermal 3: H311; Acute Tox Inhal 3: H331; STOT-SE 1: H370

Most important adverse effects:

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 1910.1200 2015:

Not classified.

Most important adverse effects:

Not applicable.

2.2 Label Elements

Label elements according to 1910.1200 2015

Outer kit

Pictogram:

GHS02, GHS06, GHS07, GHS08



Signal word:

Danger

Hazard statement(s):

H226 Flammable liquid and vapour.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H370 Causes damage to organs (optic nerve, CNS).

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.

Coated plate and conjugate

Pictogram:

GHS07



Signal word:

Warning

Hazard statement(s):

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Assay diluent

Pictogram:

GHS07, GHS09



Signal word:

Warning

Hazard statement(s):

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

Standards

Pictogram:

GHS02, GHS06, GHS08



Signal word:

Danger

Hazard statement(s):

H226 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).

Substrate buffer, wash buffer and stop solution

None.

2.3 Other hazards

None reasonably foreseeable.

2.4 NFPA ratings (scale 0-4)

Health = 3

Fire = 3

Reactivity = 0

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); H302, H310, H314, H317, H318, H330 |
| 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 | 25 – 50% | 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); H302, H310, H314, H317, H318, H330 |

Assay diluent

| Component | CAS-No. | EC-No. | Concentration | Classification |
|---|------------|-----------|---------------|---|
| 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); H302, H310, H314, H317, H318, H330 |

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°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 | Blue | 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 | 29°C | 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

Assay diluent

Prolonged contact may cause skin irritation with local redness. Symptoms may include pain, severe local redness and swelling. May cause more severe response if skin is abraded (scratched or cut).

Serious eye damage/eye irritation

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

No data available

Assay diluent

May cause eye irritation. May cause corneal injury.

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, Assay diluent, 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

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 accordance with 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 OSHA hazard communication standard 1910.1200 2015.

This product is subject to SARA Section 313.

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).

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"