SAFETY DATA SHEET

1. Identification

Product identifier: Fungassay® Test Kit

Other means of identification:

Synonyms: Laboratory test kit: Culture medium for confirmation of dermatophyte infections.

Recommended use of the chemical and restrictions on use:

Recommended use: Veterinary product used as diagnostic aid

Restrictions on use: Not for human use

Details of manufacturer or importer:

Company Name (AU): Zoetis Australia Pty Ltd
ABN 94 156 476 425
Level 6, 5 Rider Boulevard
Rhodes NSW 2138 AUSTRALIA

Tel: 1800 814 883
Fax: (02) 8876 0444
Email: australia.animalhealth@zoetis.com
Emergency Phone: 1800 814 883 (all hours)
Police and Fire Brigade: Dial 000
If ineffective: Dial Poisons Information Centre (13 1126 from anywhere in Australia)

2. Hazard(s) identification

Classification of the hazardous chemical:

Physical hazards: Not classified.

Health hazards:
- Sensitization, respiratory: Category 1
- Sensitization, skin: Category 1
- Germ cell mutagenicity: Category 1B
- Carcinogenicity: Category 1B
- Specific target organ toxicity following repeated exposure: Category 2 (bone marrow)

Environmental hazards: Not classified.

Label elements, including precautionary statements:

Hazard symbol(s):

Health hazard signal word: Danger

Hazard Statement(s):
May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause genetic defects. May cause cancer. May cause damage to organs (bone marrow) through prolonged or repeated exposure.

Precautionary Statement(s):
Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapour. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.
Response
IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

Storage
Store locked up.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification
None known.

Supplemental information
Handle as potentially infectious.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Identity of chemical ingredients</th>
<th>CAS number and other unique identifiers</th>
<th>Concentration of ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloramphenicol</td>
<td>56-75-7</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Gentamicin sulfate</td>
<td>1405-41-0</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Dermatophyte Test Medium, Base</td>
<td></td>
<td>Not available</td>
</tr>
</tbody>
</table>

4. First-aid measures

Description of necessary first aid measures

Inhalation
Move to fresh air. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician. If breathing is difficult, trained personnel should give oxygen. Get medical attention if symptoms occur.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact
Rinse with water. Get medical attention if irritation develops and persists.

Ingestion
Handle as potentially infectious. For personal protection, see section 8 of the SDS. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

Personal protection for first-aid responders

Symptoms caused by exposure
Difficulty in breathing. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

Medical attention and special treatment
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire fighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Hazchem Code
None.

General fire hazards
No unusual fire or explosion hazards noted.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.
6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Do not breathe mist or vapour. Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For emergency responders
Handle as potentially infectious. Do not breathe mist or vapour. Wear appropriate protective equipment and clothing during clean-up. Keep unnecessary personnel away. Ventilate the contaminated area. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions
Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up
Ensure adequate ventilation. Avoid inhalation of vapours or mists. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Collect spill with an inert, non-combustible absorbent material and transfer to labeled container for disposal. Clean contaminated surface thoroughly. Prevent release to the environment.

Small Spills: Wipe up with a damp cloth and place in container for disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling
Handle as potentially infectious. Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapour. Do not use in areas without adequate ventilation. Keep away from heat and sources of ignition. When using, do not eat, drink or smoke. Wash thoroughly after handling. Avoid release to the environment. Do not empty into drains. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Store locked up. Store in a well-ventilated place. Store away from direct sunlight.; 2 - 7°C (36 - 45°F). Do not freeze. Keep away from heat and sources of ignition. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children.

8. Exposure controls and personal protection

Control parameters
Follow standard monitoring procedures.

Occupational exposure limits

Zoetis Components
Chloramphenicol (CAS 56-75-7)
Type
TWA
Value
0.5 mg/m³

Biological limit values
No biological exposure limits noted for the ingredient(s).

Exposure guidelines
No exposure standards allocated.

Control banding approach
Gentamicin sulfate - Zoetis OEB 2 (control exposure to the range of 100ug/m³ to < 1000ug/m³)

Appropriate engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
Wear appropriate chemical resistant gloves.

Other
Wear suitable protective clothing. Use protective clothing (uniforms, lab coats, disposable coveralls, etc.) in both production and laboratory areas.
Respiratory protection

No personal respiratory protective equipment normally required. Whenever air contamination (mist, vapor or odor) is generated, respiratory protection is recommended as a precaution to minimize exposure. If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL. If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range. Chemical respirator with organic vapour cartridge and full facepiece.

Thermal hazards

Not applicable.

Hygiene measures

Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Package containing some small bottles of test medium.

Physical state

Liquid.

Form

Liquid.

Colour

Not available.

Odour

Not available.

Odour threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

- Flammability limit - lower (%)
  - Not available.
- Flammability limit - upper (%)
  - Not available.
- Explosive limit - lower (%)
  - Not available.
- Explosive limit – upper (%)
  - Not available.

Vapour pressure

Not available.

Vapour density

Not available.

Relative density

Not available.

Solubility(ies)

- Solubility (water)
  - Not available.

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

Not available.

Other physical and chemical parameters

- Explosive properties
  - Not explosive.
- Oxidising properties
  - Not oxidising.

10. Stability and reactivity

Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability

Material is stable under normal conditions.

Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid

Contact with incompatible materials.
Incompatible materials: Strong oxidising agents.
Hazardous decomposition products: No hazardous decomposition products are known.

11. Toxicological information

Information on possible routes of exposure

**Inhalation**: May cause damage to organs through prolonged or repeated exposure by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin contact**: May cause an allergic skin reaction.

**Eye contact**: Direct contact with eyes may cause temporary irritation.

**Chloramphenicol**

<table>
<thead>
<tr>
<th>Species</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute</strong></td>
<td></td>
</tr>
<tr>
<td>Intravenous</td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
</tr>
<tr>
<td>Oral</td>
<td>Mouse</td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
</tr>
</tbody>
</table>

| **Chronic** |             |
| Oral | Mouse | 33600 mg/kg, 14 days (Target organ(s): Liver) |
| LOAEL | Rat | 500 mg/L/day, 104 weeks (Target organ(s): Lymphatic system, Liver) |
| NOAEL | Dog | 60 mg/kg, 60 days (Target organ(s): None identified) |
| | Mouse | 75 mg/kg/day, 14 days (Target organ(s): Blood) |
| | | 500 mg/L/day, 104 weeks (Target organ(s): Lymphatic system) |

**Gentamicin sulfate** (CAS 1405-41-0)

| **Acute** |             |
| Intramuscular |             |
| LD50 | Rat | 384 mg/kg |

| **Skin corrosion/irritation**: Prolonged skin contact may cause temporary irritation.

| **Serious eye damage/irritation**: Direct contact with eyes may cause temporary irritation.

**Eye contact**: Direct contact with eyes may cause temporary irritation.

**Chloramphenicol**

<table>
<thead>
<tr>
<th>Species</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>Non-irritating</td>
</tr>
</tbody>
</table>

**Respiratory or skin sensitisation**

| **Respiratory sensitisation**: May cause allergy or asthma symptoms or breathing difficulties if inhaled. 
| **Skin sensitisation**: May cause an allergic skin reaction. 
| **Germ cell mutagenicity**: May cause genetic defects. |
### Mutagenicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>Test Type</th>
<th>Result</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloramphenicol</td>
<td>Bacterial Mutagenicity (Ames)</td>
<td>negative</td>
<td>Bacteria</td>
</tr>
<tr>
<td>Gentamicin sulfate</td>
<td>DNA Binding Assay</td>
<td>negative</td>
<td>E. coli</td>
</tr>
<tr>
<td>Chloramphenicol</td>
<td>In Vitro Micronucleus</td>
<td>positive</td>
<td>Mouse Lymphoma</td>
</tr>
</tbody>
</table>

### Chromosome Aberration

- **Species:** Human lymphocytes
- **Result:** positive

### Direct DNA Damage

- **Species:** Rat Hepatocyte
- **Result:** positive

### Carcinogenicity

- **IARC Monographs. Overall Evaluation of Carcinogenicity**
  - Chloramphenicol (CAS 56-75-7)
    - 2A Probably carcinogenic to humans.

### Reproductive toxicity

- **This product is not expected to cause reproductive or developmental effects.**

#### Developmental effects

- **Chloramphenicol**
  - 23 g/kg Embryo / Fetal Development, teratogenic
  - Result: LOEL
  - Species: Rat
  - Organ: Oral

- **Gentamicin sulfate**
  - 375 mg/kg/day Embryo / Fetal Development, Developmental toxicity
  - Result: LOAEL
  - Species: Rat
  - Organ: Intraperitoneal

- **Chloramphenicol**
  - 500 mg/kg/day Embryo / Fetal Development, Fetotoxicity
  - Result: LOAEL
  - Species: Mouse
  - Organ: Oral

  - 500 mg/kg/day Embryo / Fetal Development, Fetotoxicity
  - Result: LOAEL
  - Species: Rabbit
  - Organ: Oral

  - 500 mg/kg/day Embryo / Fetal Development, Fetotoxicity
  - Result: LOAEL
  - Species: Rat
  - Organ: Oral

- **Gentamicin sulfate**
  - 660 mg/kg/day Prenatal & Postnatal Development, Developmental toxicity
  - Result: LOAEL
  - Species: Rat
  - Organ: Subcutaneous

  - 660 mg/kg/day Prenatal & Postnatal Development, Neonatal toxicity
  - Result: LOAEL
  - Species: Rat
  - Organ: Subcutaneous
Reproductivity
Chloramphenicol 100 mg/kg/day Reproductive & Fertility-Males, Fertility
Result: NOAEL
Species: Rat

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
May cause damage to organs (bone marrow) through prolonged or repeated exposure.

Aspiration hazard
Not an aspiration hazard.

Chronic effects
May cause damage to organs through prolonged or repeated exposure.

Other information
Handle as potentially infectious.

12. Ecological information
Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Avoid release to the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloramphenicol (CAS 56-75-7)</td>
<td>Aquatic Crustacea</td>
<td>EC50 Shrimp (Penaeus stylirostris) 55.4 mg/l, 48 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
Bioaccumulative potential
No data available.

Mobility in soil
No data available for this product.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations
Disposal methods
Handle as potentially infectious. Avoid release to the environment. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

Residual waste
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information
ADG
Not regulated as dangerous goods.

RID
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not established.

15. Regulatory information
Safety, health and environmental regulations
National regulations

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011).

This SDS replaces version: Issued July 2016

Poison Schedule (Product) - Not Scheduled

Australia Medicines & Poisons Schedule 3
CHLORAMPHENICOL (CAS 56-75-7)

Australia Medicines & Poisons Schedule 4
CHLORAMPHENICOL (CAS 56-75-7)

High Volume Industrial Chemicals (HVIC)
Not listed.

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)
Not listed.

National Pollutant Inventory (NPI) substance reporting list
Not listed.

Prohibited Carcinogenic Substances
Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)
Not listed.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)
Not listed.

Restricted Carcinogenic Substances
Not regulated.

International regulations

Stockholm Convention
Not applicable.

Rotterdam Convention
Not applicable.

Kyoto protocol
Not applicable.

Montreal Protocol
Not applicable.

Basel Convention
Not applicable.

International Inventories

Country(s) or region | Inventory name | On inventory (yes/no)*
---------------------|---------------|------------------
Australia            | Australian Inventory of Chemical Substances (AICS) | No
Canada               | Domestic Substances List (DSL) | No
Canada               | Non-Domestic Substances List (NDSL) | No
China                | Inventory of Existing Chemical Substances in China (IECSC) | No
Europe               | European Inventory of Existing Commercial Chemical Substances (EINECS) | No
Europe               | European List of Notified Chemical Substances (ELINCS) | No
Japan                | Inventory of Existing and New Chemical Substances (ENCS) | No
Korea                | Existing Chemicals List (ECL) | No
New Zealand          | New Zealand Inventory | No
Philippines          | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No
United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Material name: Fungassay® Test Kit

3330
16. Other information

Issue date 15-December-2016

Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time. The information in the sheet was written based on the best knowledge and experience currently available.