1. Identification

Product identifier: HM5 Reagent Pack

Other means of identification:


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
- Address: Level 6, 5 Rider Boulevard, Rhodes NSW 2138 AUSTRALIA
- Tel: 1800 814 883
- Fax: (02) 8876 0444
- Email: productsupport.au@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: Not classified.
- Environmental hazards: Not classified.

Label elements, including precautionary statements:

- Hazard symbol(s): None.
- Signal word: None.
- Hazard statement(s): The mixture does not meet the criteria for classification.
- Precautionary statement(s):
  - Prevention: Observe good industrial hygiene practices.
  - Response: Wash hands after handling.
  - Storage: Store away from incompatible materials.
  - Disposal: Dispose of waste and residues in accordance with local authority requirements.

Other hazards which do not result in classification: None known.

Supplemental information: Direct contact with eyes may cause temporary irritation.

3. Composition/information on ingredients

Mixture:

<table>
<thead>
<tr>
<th>Concentration of ingredients (%)</th>
<th>CAS number and other unique identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Mixture</td>
</tr>
<tr>
<td>&lt;2*</td>
<td>67-63-0</td>
</tr>
</tbody>
</table>

*Only present in Lyse solution.
4. First-aid measures

**Description of necessary first aid measures**

- **Inhalation**: Move to fresh air. Call a physician if symptoms develop or persist.
- **Skin contact**: Wash off with soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- **Eye contact**: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- **Ingestion**: Rinse mouth. Call a physician or poison control centre immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

**Personal protection for first-aid responders**

- IF exposed or concerned: Get medical advice/attention. You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call. For personal protection, see section 8 of the SDS. 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.

**Symptoms caused by exposure**

- Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort.

**Medical attention and special treatment**

- Provide general supportive measures and treat symptomatically. 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**: Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained.
- **For emergency responders**: Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Avoid contact with eyes, skin, and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection recommended in Section 8 of the SDS.

**Environmental precautions**

- Avoid discharge into drains, water courses or onto the ground.

**Methods and materials for containment and cleaning up**

- Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up.
- Large Spills: Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers. Clean surface thoroughly to remove residual contamination.
- Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). 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**

- Use with adequate ventilation. Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment.

**Conditions for safe storage, including any incompatibilities**

- Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Do not freeze. Store away from incompatible materials (see Section 10 of the SDS).
8. Exposure controls and personal protection

Control parameters
Follow standard monitoring procedures.

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1230 mg/m³</td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>983 mg/m³</td>
<td>400 ppm</td>
</tr>
</tbody>
</table>

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1230 mg/m³</td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>983 mg/m³</td>
<td>400 ppm</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td>STEL</td>
<td>400 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>200 ppm</td>
<td></td>
</tr>
</tbody>
</table>

UK. EH40 Workplace Exposure Limits (WELs)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1250 mg/m³</td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>999 mg/m³</td>
<td>400 ppm</td>
</tr>
</tbody>
</table>

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td>TWA</td>
<td>500 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Biological limit values

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td>25 mg/l</td>
<td>Aceton</td>
<td>Urine</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

ACGIH Biological Exposure Indices

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td>40 mg/l</td>
<td>Acetone</td>
<td>Urine</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.
### 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. In case of insufficient ventilation, wear suitable respiratory equipment.
- **Thermal hazards**: Not applicable.
- **Hygiene measures**: 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.

### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Form</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless.</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>7 - 10</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>-2 °C (28.4 °F)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>102 °C (215.6 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit – upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>23 hPa @ 20°C / 68F</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td></td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>miscible</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Other physical and chemical parameters</strong></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>1.00 g/cm³ @ 20°C / 68F</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive.</td>
</tr>
</tbody>
</table>
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. Sunlight. Protect from freezing. Keep away from heat, sparks and open flame.

Incompatible materials
Strong oxidising agents.

Hazardous decomposition products
No hazardous decomposition products are known.

11. Toxicological information

Information on possible routes of exposure

**Inhalation**
Health injuries are not known or expected under normal use.

**Skin contact**
Prolonged skin contact may cause temporary irritation.

Isopropyl alcohol

Result: Irritation
Species: Rabbit
Severity: Mild

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

Isopropyl alcohol

Result: Irritation
Species: Rabbit
Severity: Severe

**Ingestion**
Health injuries are not known or expected under normal use.

**Symptoms related to exposure**
Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort.

**Acute toxicity**
Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>12800 mg/kg</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>16000 ppm, 8 hours</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td>3600 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOAEL</td>
<td>Rat</td>
<td>4000 ppm, 20 weeks (Liver, Central nervous system)</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>Based on available data, the classification criteria are not met. Prolonged skin contact may cause temporary irritation.</td>
<td></td>
</tr>
</tbody>
</table>

**Corrosivity**

Isopropyl alcohol

Result: Irritation
Species: Rabbit
Severity: Mild

**Serious eye damage/irritation**

Based on available data, the classification criteria are not met. Direct contact with eyes may cause temporary irritation.
Eye contact
Isopropyl alcohol
Result: Irritation
Species: Rabbit
Severity: Severe

Respiratory or skin sensitisation
Respiratory sensitisation
Due to partial or complete lack of data the classification is not possible.
Skin sensitisation
Due to partial or complete lack of data the classification is not possible. This product is not expected to cause skin sensitisation.

Germ cell mutagenicity
Due to partial or complete lack of data the classification is not possible.

Mutagenicity
Isopropyl alcohol
Bacterial Mutagenicity (Ames)
Result: negative
Species: Salmonella
In Vitro Sister Chromatid Exchange
Result: negative
Mammalian Cell Mutagenicity
Result: negative
Species: HGPRT Chinese Hamster Ovary (CHO) cells

Carcinogenicity
Due to partial or complete lack of data the classification is not possible.

ACGIH Carcinogens
Isopropyl alcohol (CAS 67-63-0) A4 Not classifiable as a human carcinogen.

Reproductive toxicity
Due to partial or complete lack of data the classification is not possible.

Developmental effects
Isopropyl alcohol
1200 mg/kg/day Prenatal & Postnatal Development, No effects at maximum dose
Result: NOAEL
Species: Rat
Organ: Oral
7000 ppm Prenatal & Postnatal Development, Maternal toxicity, Fetotoxicity, Embryotoxicity
Result: LOAEL
Species: Rat
Organ: Inhalation

Reproductivity
Isopropyl alcohol
1000 mg/kg/day 2 Generation Reproductive Toxicity, Maternal Toxicity, Fetal mortality
Result: LOAEL
Species: Rat
Organ: Oral

Specific target organ toxicity - single exposure
Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure
Due to partial or complete lack of data the classification is not possible.

Aspiration hazard
Due to partial or complete lack of data the classification is not possible.

12. Ecological information
Ecotoxicity
Environmental properties have not been investigated. Due to partial or complete lack of data the classification for hazardous to the aquatic environment, is not possible. Avoid release to the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td>Aquatic Fish</td>
<td>LC50 Bluegill (Lepomis macrochirus) &gt; 1400 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

Material name: HM5 Reagent Pack

3582

SDS AUSTRALIA

6 / 9
Persistence and degradability  No data available for this product.

Bioaccumulative potential  No data available for this product.

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  Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. 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 the Australia Model Code of Practice for the preparation of safety data sheets for hazardous chemicals.
Australia Medicines & Poisons Schedule 2
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 3
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 5
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 6
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 7
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 8
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 9
Poisons schedule number not allocated.

High Volume Industrial Chemicals (HVIC)
Isopropyl alcohol (CAS 67-63-0) 1000 - 9999 TONNES See the regulation for additional information.

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

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>
Country(s) or region | Inventory name | On inventory (yes/no) *
---|---|---
Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No
Taiwan | Taiwan Chemical Substance Inventory (TCSI) | 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).

16. Other information

Issue date | 27-September-2019
Disclaimer | 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.
Revision information | Product and Company Identification: Synonyms
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties