

## SAFETY DATA SHEET

### Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

|                                    |  |
|------------------------------------|--|
| <b>Product Name:</b>               | <b>TOPAS® 100 EC Systemic Fungicide</b>  |
| <b>Other Names:</b>                | <b>Product code:</b> A6209Q  |
| <b>Recommended Use:</b>            | For control of black spot (scab) of apples and pears, powdery mildew of apples and grapes and ring spot of Brussels sprouts. |
| <b>Company Details:</b>            | <b>Syngenta Crop Protection Pty Limited</b><br>ABN 33 002 933 717  |
| <b>Address:</b>                    | <b>Level 1, 2-4 Lyonpark Road</b><br><b>MACQUARIE PARK NSW 2113</b><br><b>AUSTRALIA</b>                                      |
| <b>Telephone Number:</b>           | <b>(02) 8876 8444</b>  |
| <b>Emergency Telephone Number:</b> | <b>24 hours - 1800 033 111</b>   |

### Section 2: HAZARDS IDENTIFICATION

|                               |   |
|-------------------------------|---|
| <b>Hazard Classification:</b> | Classified as a hazardous chemical according to the Australian criteria for the classification of chemicals |
| <b>Risk Phrases:</b>          | R36/38 Irritating to eyes and skin  |
| <b>Safety Phrases:</b>        | –   |

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

|   |             |
|---|-------------|
| <b>SUBSTANCE</b>                            |             |
| <b>Chemical Identity of Pure Substance:</b> | Penconazole |
| <b>Synonym:</b>                             | CGA71818    |
| <b>CAS Number:</b>                          | 66246-88-6  |

|  |               |                          |
|--|---------------|--------------------------|
| <b>MIXTURE</b>                                   |               |                          |
| <b>Chemical Identity of Ingredients</b>          | <b>CAS No</b> | <b>Proportion (%w/v)</b> |
| Penconazole                                      | 66246-88-6    | 10                       |
| Calcium alkyl benzene sulphonate                 | 26264-06-2    | <10                      |
| Aromatic petroleum hydrocarbon liquid mixture    | 64742-94-5    | >60                      |
| Other ingredients determined to be non hazardous | -             | to 100                   |

## Section 4: FIRST AID MEASURES

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| <p><b>Description of Necessary First Aid Measures:</b></p>   | <p>In case of poisoning by any exposure route contact a doctor or Poisons Information Centre on 131 126.<br/>Have the product label or SDS with you when calling or going for treatment.</p> <p><b>Ingestion:</b> If swallowed, seek medical advice immediately and show this container or label. DO NOT induce vomiting.</p> <p><b>Eye contact:</b> Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.</p> <p><b>Skin contact:</b> Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.</p> <p><b>Inhalation:</b> Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Information Centre immediately.</p> |
| <p><b>Poisoning Symptoms:</b><br/><b>Medical Advice:</b></p> | <p>Poisoning symptoms in laboratory animals were non-specific<br/>Treat symptomatically.</p>  |

## Section 5: FIRE FIGHTING MEASURES

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| <p><b>Suitable Extinguishing Media:</b></p>                                   | <p><i>Extinguishing media - small fires</i><br/>Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide extinguisher. DO NOT use direct jet of water.</p> <p><i>Extinguishing media - large fires</i><br/>Use alcohol-resistant foam</p>   |
| <p><b>Hazards from Combustion Products:</b></p>                               | <p>This product contains combustible organic components that may burn and decompose during a fire producing dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health.<br/>Flash back possible over considerable distance.</p> |
| <p><b>Special Protective Precautions and Equipment for Fire Fighters:</b></p> | <p>Wear full protective clothing and self-contained breathing apparatus.</p>   |

## Section 6: ACCIDENTAL RELEASE MEASURES

|                                     |  |
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| <p><b>Emergency Procedures:</b></p> | <p>In case of spillage it is important to take all steps necessary to</p> <ul style="list-style-type: none"> <li>• Avoid eye and skin contact</li> <li>• Avoid contamination of waterways</li> </ul> |
|-------------------------------------|--|

|  |   |
|--|---|
| <b>Methods and Materials for Containment and Clean Up:</b> | <p><b>Procedure for spill</b></p> <ol style="list-style-type: none"> <li>(1) Keep all bystanders away</li> <li>(2) Wear full length clothing and PVC gloves</li> <li>(3) Reposition any leaking containers so as to minimise further leakage</li> <li>(4) Dam and absorb spill with an absorbent material (eg sand or soil)</li> <li>(5) Shovel the absorbed spill into drums</li> <li>(6) Disposal of the absorbed material will depend upon the extent of the spill             <ul style="list-style-type: none"> <li>• For quantities up to 50 L of product bury in a secure landfill site</li> <li>• For quantities greater than 50 L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established</li> </ul> </li> <li>(7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable</li> </ol> |
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## Section 7: HANDLING AND STORAGE

|                                       |  |
|---------------------------------------|--|
| <b>Precautions for Safe Handling:</b> | <p>Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale spray mist. When preparing the spray wear:</p> <ul style="list-style-type: none"> <li>• cotton overalls buttoned to the neck and wrist,</li> <li>• a washable hat,</li> <li>• elbow-length PVC gloves,</li> <li>• a face shield or goggles.</li> </ul> <p>If product gets on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each days use wash gloves, face shield, or goggles and contaminated clothing.</p> |
| <b>Conditions for Safe Storage:</b>   | <p>Store in closed original container in a dry, well ventilated place cool as possible out of direct sunlight.</p>   |

## Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

|                                       | <i>Component</i>   | <i>Exposure limit</i> | <i>Value type</i> |
|---------------------------------------|--|-----------------------|-------------------|
| <b>National Exposure Standards:</b>   | No exposure standard allocated   |                       |                   |
| <b>Syngenta Exposure Standards:</b>   | Penconazole  | 7 mg/m <sup>3</sup>   |                   |
| <b>Biological Limit Values:</b>       | No biological limits allocated   |                       |                   |
| <b>Engineering Controls:</b>          | No special requirements. Product is used outdoors.   |                       |                   |
| <b>Personal Protective Equipment:</b> | <p>Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale spray mist. When preparing the spray wear:</p> <ul style="list-style-type: none"> <li>• cotton overalls buttoned to the neck and wrist,</li> <li>• a washable hat,</li> <li>• elbow-length PVC gloves,</li> <li>• a face shield or goggles.</li> </ul> <p>If product gets on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each days use wash gloves, face shield, or goggles and contaminated clothing.</p> |                       |                   |

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

|                         |                                 |                                     |                     |
|-------------------------|---------------------------------|-------------------------------------|---------------------|
| <b>Appearance:</b>      | light yellow to brownish liquid | <b>Boiling Point/Range:</b>         | > 186°C             |
| <b>Odour:</b>           | Solvent smell                   | <b>Freezing/Melting Point:</b>      | Not available       |
| <b>pH:</b>              | 4 - 8 at 1 % w/v                | <b>Solubility in water:</b>         | Miscible            |
| <b>Vapour Pressure:</b> | Not available                   | <b>Specific Gravity or Density:</b> | 0.91 – 1.01 at 20°C |
| <b>Vapour Density:</b>  | Not available                   |                                     |                     |

|   |                        |                              |                |
|---|------------------------|------------------------------|----------------|
| <b>Flash Point:</b>   | 68 - 70°C (closed cup) | <b>Explosive Properties:</b> | Not explosive  |
| <b>Upper and Lower Flammable (Explosive) Limits in Air:</b> | Not available          | <b>Oxidising Properties:</b> | Not oxidising  |
| <b>Ignition Temperature:</b>                                | Not available          | <b>Combustibility:</b>       | Combustible C1 |
|   |                        | <b>Corrosiveness:</b>        | Not corrosive  |

## Section 10: STABILITY AND REACTIVITY

|  |   |
|--|---|
| <b>Chemical Stability:</b>               | Stable under standard conditions.   |
| <b>Conditions to Avoid:</b>              | None known.   |
| <b>Incompatible Materials:</b>           | None known.   |
| <b>Hazardous Decomposition Products:</b> | Combustion or thermal decomposition will evolve toxic and irritant vapours. |
| <b>Hazardous Reactions:</b>              | None known. Hazardous polymerization does not occur.                        |

## Section 11: TOXICOLOGICAL INFORMATION

|   |   |   |
|---|---|---|
| <b>Health Effects from Likely Routes of Exposure:</b> |   |   |
| <b>Acute:</b>   | <b>Oral toxicity:</b>   | <b>LOW TOXICITY</b><br>Tests on rats indicate this product has a low toxicity following single doses of a similar formulation.<br>(LD <sub>50</sub> = 2,574 mg/kg)      |
|   | <b>Dermal toxicity:</b>   | <b>LOW TOXICITY</b><br>Tests on rabbits indicate this product has a low toxicity following skin contact with a similar formulation.<br>(LC <sub>50</sub> = >4000 mg/kg) |
|   | <b>Inhalation:</b>  | <b>LOW TOXICITY</b><br>Tests on rats indicate this product is not harmful due to inhalation of a similar formulation.<br>(LC <sub>50</sub> (4h) = >5.294 mg/L air)      |
|   | <b>Skin irritation:</b>   | <b>SLIGHT IRRITANT</b>  |
|   | <b>Eye irritation:</b>  | <b>MODERATE IRRITANT</b>  |
|   | <b>Sensitisation:</b>   | <b>NOT A SENSITISER</b>   |
| <b>Chronic:</b>                                       | <b>Penconazole technical</b> has been extensively tested on laboratory mammals and in test-tube systems. No evidence was obtained of mutagenic, carcinogenic, teratogenic neurotoxic or reproductive effects. |   |

## Section 12: ECOLOGICAL INFORMATION

|                                       |   |
|---------------------------------------|---|
| <b>Ecotoxicity:</b>                   | <p><i>Toxicity to fish:</i> <b>Moderately toxic to fish</b><br/><i>Oncorhynchus mykiss</i> (rainbow trout):<br/>LC<sub>50</sub> = 4.6 - 6.8 mg/L, 96 h<br/>(Based on studies with a similar formulation)</p> <p><i>Toxicity to daphnia and other aquatic invertebrates:</i> <b>Slightly toxic to aquatic invertebrates</b><br/><i>Daphnia magna</i> (Water flea):<br/>EC<sub>50</sub> = 36 mg/L, 48 h<br/>(Based on studies with a similar formulation)</p> <p><i>Toxicity to algae:</i> <b>Practically non-toxic to algae</b><br/><i>Pseudokirchneriella subcapitata</i> (green algae):<br/>EC<sub>50</sub> = 3.9 mg/L, 72 h<br/>(Based on studies with a similar formulation)</p> <p><i>Toxicity to soil dwelling organisms:</i> <b>Slightly toxic to earthworms</b><br/><i>Eisenia foetida</i> (earthworm):<br/>LC<sub>50</sub> &gt;1000 mg/kg, 14 d<br/>(Based on studies with a similar formulation)</p> <p><i>Bees:</i> <b>Slightly toxic to bees</b><br/><i>Apis mellifera</i> (honey bee):<br/>LC<sub>50</sub> oral = approx 7 µg/bee<br/>(Based on studies with a similar formulation)</p> |
| <b>Persistence and Degradability:</b> | Penconazole is persistent in water, but not in soil   |
| <b>Mobility</b>                       | Penconazole has very high mobility in soil  |
| <b>Environmental Fate (Exposure):</b> | Fully degraded and incorporated into organic molecules  |
| <b>Bioaccumulative Potential:</b>     | Penconazole does not bioaccumulate  |

## Section 13: DISPOSAL CONSIDERATIONS

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|--|---|
| <b>Disposal Methods and Containers:</b>                  | Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. |
| <b>Special Precautions for Landfill or Incineration:</b> | Not applicable  |

## Section 14: TRANSPORT INFORMATION

|                                 |                                   |                                      |                |
|---------------------------------|-----------------------------------|--------------------------------------|----------------|
| <b>LAND TRANSPORT ADG</b>       | Not a dangerous good in Australia |                                      |                |
| <b>UN Number:</b>               | None allocated                    | <b>Packing Group:</b>                | None allocated |
| <b>UN Proper Shipping Name:</b> | None allocated                    | <b>Special Precautions for User:</b> | None allocated |
| <b>Class:</b>                   | None allocated                    | <b>Hazchem Code:</b>                 | None allocated |
| <b>Subsidiary Risk:</b>         | None allocated                    |                                      |                |

**SEA TRANSPORT**

|                                 |                |                          |                |
|---------------------------------|----------------|--------------------------|----------------|
| IMDG                            |                |                          |                |
| <b>UN Number:</b>               | None allocated | <b>Subsidiary Risk:</b>  | None allocated |
| <b>UN Proper Shipping Name:</b> | None allocated | <b>Packing Group:</b>    | None allocated |
| <b>Class:</b>                   | None allocated | <b>Marine Pollutant:</b> | No             |

|                                    |                |                         |                |
|------------------------------------|----------------|-------------------------|----------------|
| <b>AIR TRANSPORT</b><br>IATA - DGR |                |                         |                |
| <b>UN Number:</b>                  | None allocated | <b>Subsidiary Risk:</b> | None allocated |
| <b>UN Proper Shipping Name:</b>    | None allocated | <b>Packing Group:</b>   | None allocated |
| <b>Class:</b>                      | None allocated |                         |                |

### Section 15: REGULATORY INFORMATION

|                                  |       |
|----------------------------------|-------|
| <b>APVMA Product Number:</b>     | 30476 |
| <b>Poisons Schedule (SUSDP):</b> | 5     |

### Section 16: OTHER INFORMATION

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| <b>Date of preparation or last revision:</b> May 2010   |
| <b>Source of Data:</b> The information provided in this SDS is sourced from Syngenta internal studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.   |
| <b>Note:</b> This product is a registered agricultural chemical and must, therefore, be used in accordance with the container label directions  |
| <b>CONTACT POINT:</b> Regulatory Affairs Manager, Syngenta Crop Protection Pty Limited<br>(02) 8876 8444<br><b>24 HOURS EMERGENCY CONTACT: 1800 033 111</b>   |
| This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.<br>If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. |

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