


## Safety Data Sheet

### Botrynil L8271 (Act 36 of 1947) Namibian Reg. No. N-AR 1552

<b>1) PRODUCT AND COMPANY IDENTIFICATION</b>	
<b>Product name:</b>	BOTRYNIL
<b>Other means of identification:</b>	Pyrimethanil 400 g/L SC
<b>Chemical Name:</b>	4,6-dimethyl-N-phenyl-2-pyrimidinamine
<b>Recommended use:</b>	Fungicide
<b>Restrictions on use:</b>	Agriculture
<b>UN No:</b>	NA
<b>Distributed by:</b>	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
<b>Emergency Number:</b>	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 TYGERBERG:021 931 6129 RED CROSS 021 689 5227 GRIFFON POISON CENTRE: 082 446 8946.
<b>2) HAZARDS IDENTIFICATION:</b>	
<b>Classification of the substance / mixture:</b>	GHS: Oral Category: 5 Dermal Category: 5 Aquatic Chronic Category 2
<b>Label Elements: Globally Harmonized System, EU (GHS):</b>	<p><b>Pictogram:</b></p>  <p><b>Hazard Statements:</b> <b>H411:</b> Toxic to aquatic life with long-lasting effects.</p> <p><b>Precautionary Statements:</b> <b>P273:</b> Avoid release to the environment.</p> <p><b>Hazard symbols:</b> <b>N:</b> Dangerous for the environment</p> <p><b>R-phrases(s):</b> <b>R51/53:</b> Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p><b>S-phrases(s):</b> <b>S2:</b> Keep out of reach of children. <b>S7:</b> Keep container tightly closed. <b>S13:</b> Keep away from food, drink and animal feeding stuffs. <b>S20/21:</b> When using, do not eat, drink or smoke.</p>
According to Directive 67/548/EEC No. 1272/2008 [CLP]	

**3) COMPOSITION / INFORMATION ON INGREDIENTS:****3.1 Substances:**

Not applicable

**3.2 Mixtures:**

Chemical Name	Concentration	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)
Pyrimethanil	400 g/L	53112-28-0	610-963-4	Aquatic Chronic Cat. 2 (H411)

**4) FIRST AID MEASURES:**

<b>Inhalation:</b>	Remove patient to fresh air. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance if at all worried.
<b>Skin contact:</b>	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. Do not rub skin. Seek medical assistance should irritation persist.
<b>Eye contact:</b>	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance.
<b>Ingestion</b>	Wash out mouth with water if the patient is conscious. Never give anything by mouth to an unconscious person. Do not induce vomiting. Keep patient at rest and seek medical advice as above
<b>Most important symptoms and effects, both acute and delayed:</b>	No symptoms, local or systemic, have been reported with this product.
<b>Indication of any immediate medical attention and special treatment needed:</b>	For local contamination, treatment should be symptomatic after decontamination. In case of skin or eye contamination, treat as instructed under "First Aid". For systemic poisoning initial treatment should be symptomatic and supportive. Anticonvulsant therapy is not appropriate. There is no antidote for poisoning with pyrimethanil.

**5) FIRE-FIGHTING MEASURES:**

<b>Extinguishing Media:</b>	As this product is not flammable, use extinguishing agent suitable for the surrounding fire. Use alcohol-resistant foam, carbon dioxide, dry powder, or water. For large fires, use alcohol-resistant foam or water-fog.
<b>Unsuitable Extinguishing Media:</b>	Do not use high volume water jet, due to contamination risk.
<b>Fire Fighting:</b>	Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Do not scatter the material. Avoid pollution of waterways. Contain firefighting water by bunding the area with sand or earth to prevent it from entering any bodies of water.
<b>Protective clothing:</b>	Full protective clothing and self-contained breathing apparatus

**6) ACCIDENTAL RELEASE MEASURES:**

<p><b>Personal precautions, protective equipment and emergency procedures:</b></p>	<p>Avoid contact with skin and eyes. For personal protection see Section 8. Do not breathe in spray or fumes.</p>
<p><b>Environmental Precautions:</b></p>	<p>Do not contaminate waterways, drains and groundwater. If contamination of waterways, drains, rivers, or lakes is unavoidable, warn the local authorities (Police and Department of Water/Environmental affairs) immediately.</p>
<p><b>Methods and material for containment and cleaning up:</b></p>	<p>Avoid contact with the spilled material or contaminated surfaces. When dealing with spills do not eat, drink or smoke and wear personal protective clothing and equipment as described in the PERSONAL PROTECTION section above. Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.</p>
<b>7) HANDLING &amp; STORAGE:</b>	
<p><b>Precautions for Safe Handling:</b></p>	<p>Avoid skin and eye contact and inhalation of spray mist.</p>
<p><b>Conditions for Safe Storage, including any incompatibilities:</b></p>	<p>Store in original container tightly closed and in a locked, dry, cool, well-ventilated area away from foodstuffs, fertilisers and seeds and animals. Do not store for prolonged periods in direct sunlight. Store below 28 °C. Protect from frost Keep away from children or uninformed persons.</p> <p>After use and before eating, drinking, smoking, or using the toilet, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles and contaminated clothing.</p>
<b>8) EXPOSURE CONTROL / PERSONAL PROTECTION:</b>	
<p><b>Appropriate Engineering Controls:</b></p>	<p>It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.</p>
<p><b>Control Parameters: Occupational Exposure Limits:</b></p>	<p>No data available</p>
<p><b><u>PERSONAL PROTECTIVE EQUIPMENT:</u></b> <b>Clothing:</b></p>	<p>Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance. Such as cotton overalls buttoned to the neck and wrist.</p>
<p><b>Respiratory:</b></p>	<p>Respiratory protection is not normally required. If aerosol or mist is formed and airborne concentrations are likely to exceed the exposure standard above, an approved respirator should be worn.</p>
<p><b>Gloves:</b></p>	<p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance (e.g. PVC)</p>
<p><b>Eye protection:</b></p>	<p>Safety goggles with side shields.</p>
<p><b>Emergency eye wash:</b></p>	<p>Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.</p>
<b>9) PHYSICAL &amp; CHEMICAL PROPERTIES:</b>	
<p><b>Form:</b></p>	<p>Liquid</p>
<p><b>Colour:</b></p>	<p>Beige</p>

<b>Odour:</b>	Nearly odourless
<b>Solubility:</b>	Forms a suspension
<b>pH:</b>	7.62 at 20 °C (100 g/L suspension)
<b>Odour threshold:</b>	Not available
<b>Melting point / Freezing point</b>	96.3 (Pyrimethanil)
<b>Initial boiling point and boiling range</b>	Not available
<b>Flash point:</b>	Not flammable
<b>Evaporation rate:</b>	Not available
<b>Flammability (solid, gas)</b>	Not flammable
<b>Upper/ lower flammability or explosive limits:</b>	Not available
<b>Vapour pressure:</b>	2.2 mPa, 25°C (Pyrimethanil)
<b>Vapour density:</b>	Not available
<b>Relative density:</b>	1.08 g/L
<b>Partition coefficient: n-octanol/water</b>	Log K <sub>ow</sub> 2.84, pH 6.1 (Pyrimethanil)
<b>Auto-ignition temperature:</b>	Not available
<b>Viscosity:</b>	799 cPs, 25°C
<b>10) STABILITY &amp; REACTIVITY:</b>	
<b>Reactivity:</b>	No hazardous reactions if stored and handled as indicated.
<b>Chemical Stability:</b>	No decomposition if stored (up to 2 years) and applied as directed. Store in the closed, original container in a cool, well-ventilated area. Store below 28°C. Keep out of reach of children.
<b>Possibility of hazardous reactions:</b>	Not available
<b>Conditions to avoid:</b>	Avoid prolonged periods of storage in direct sunlight.
<b>Incompatible materials:</b>	Oxidizing agents
<b>Hazardous decomposition product(s):</b>	Toxic fumes may be given off if heated.
<b>11) TOXICOLOGICAL INFORMATION:</b>	
<b>Acute Toxicity:</b>	
<b>Oral:</b>	LD50 (mg/kg) > 5000 (Rat)
<b>Dermal:</b>	LD50 (mg/kg) > 4000 (Rat)
<b>Inhalation:</b>	LC50 (mg/L) > 1.26 (Rat)
<b>Skin Corrosion/Irritation:</b>	Reversibly irritating.
<b>Serious Eye Damage/Irritation:</b>	Not an irritant.
<b>Respiratory or Skin Sensitization:</b>	Not a sensitizer.
<b>Germ Cell Mutagenicity:</b>	No data available
<b>Carcinogenicity:</b>	No data available
<b>Reproductive Toxicity:</b>	No data available
<b>STOT-SE:</b>	No data available
<b>STOT-RE:</b>	No data available
<b>Aspiration Hazard:</b>	No data available
<b>12) ECOLOGICAL INFORMATION:</b>	
<b>Ecotoxicity:</b>	
<b>Birds:</b>	Acute oral LD50 for bobwhite quail > 2000 mg/kg. Acute oral LD50 for mallard duck > 2000 mg/kg.
<b>Fish:</b>	LC50 (96 h) for rainbow trout 10.6 mg/L. LC50 (96 h) for mirror carp 35.4 mg/L.
<b>Daphnia:</b>	EC50 (48 h) for <i>Daphnia magna</i> 2.9 mg/L.
<b>Algae:</b>	EC50 (96 h) for algae, <i>Selenastrum capricornutum</i> , 1.2 mg/L.
<b>Worms:</b>	LC50 (14 d) for earthworms 625 mg/kg dry soil.
<b>Bees:</b>	LD50 (oral and contact) >100 µg/bee.
<b>Other:</b>	Not available.
<b>Persistence and Degradability:</b>	DT <sub>50</sub> in laboratory studies 27–82 d; field studies indicate rapid degradation, DT <sub>50</sub> 7–54 d; 2-amino-4,6-dimethylpyrimidine is the main soil metabolite. Pyrimethanil disappears rapidly from surface water and moderately adsorbs to the sediment, from which it is further degraded.
<b>Bio accumulative Potential:</b>	No evidence of accumulation.
<b>Mobility in Soil:</b>	K <sub>oc</sub> 265–751. Low potential for leaching to groundwater; field studies show minimal movement of pyrimethanil into deeper soil layers.
<b>13) DISPOSAL CONSIDERATIONS:</b>	

<b>Waste Disposal:</b>	In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate water, food, or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
<b>Container Disposal:</b>	Refer to the product label for instructions. Container Refilling and Disposal: If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. <b>DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.</b> Do not transport if this container is damaged or leaking.
<b>14) TRANSPORTATION INFORMATION:</b>	
<b>Road Transport ADR / IRD:</b>	UN Number: Not applicable UN Proper Shipping Name: Not applicable Transport Hazard Class: Not applicable Packing Group: Not applicable EPG: Not applicable Poisons Schedule Number: Exempt from scheduling Dangerous Goods Class and Subsidiary Risk: Not classified as dangerous goods for transport by road or rail Hazchem Code
<b>Maritime Transport IMDG / IMO:</b>	UN Number: Not applicable UN Proper Shipping Name: Not applicable Transport Hazard Class: Not applicable Packing Group: Not applicable EPG: Not applicable Poisons Schedule Number: Exempt from scheduling Dangerous Goods Class and Subsidiary Risk: Not classified as dangerous goods for transport by road or rail Hazchem Code
<b>Air Transport ICAO / IATA:</b>	Not applicable
<b>Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</b>	Not applicable
<b>15) REGULATORY INFORMATION:</b>	
<b>Safety, health and environmental regulations/legislation specific for the substance/mixture:</b>	For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)
<b>Chemical Safety Assessment:</b>	Advice on product handling can be found in sections 7 and 8 of this safety data sheet.
<b>16) OTHER INFORMATION:</b>	
<p>All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.</p> <p>It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS.</p> <p>The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.</p> <p>MERIDIAN AGRITECH MAKES NO REPRESENTATION OR WARRANTIES, EITHER EXPRESSES OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANT ABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MERIDIAN AGRITECH (PTY) LTD WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.</p> <p>Date of issue: 30/07/2010 Date of revision: 25/04/2016, 05/01/2021</p> <p><b>Abbreviations and acronyms:</b></p> <ol style="list-style-type: none"> <li>1. CAS number: Chemical Abstracts Service number.</li> <li>2. CLP: Classification, Labelling, Packaging.</li> <li>3. LD<sub>50</sub>: Lethal Dose for 50% of the test population.</li> <li>4. LC<sub>50</sub>: Lethal Concentration for 50% of the test population.</li> </ol>	

5. DT<sub>50</sub>: Half-life.
6. GHS: Globally Harmonised System (of Classification and Labelling of Chemicals).
7. STOT: Specific Target Organ Toxicity
8. SE: Single exposure
9. RE: Repeated exposure

**Literature References:**

- GHS: [www.ccohs.ca/oshanswers/chemicals/ghs.html](http://www.ccohs.ca/oshanswers/chemicals/ghs.html)
- ECHA: <https://echa.europa.eu/search-chemicals>