1. Chemical Product Identification

Product Name: Pyridaben
Molecular Formula: C\textsubscript{19}H\textsubscript{25}ClN\textsubscript{2}OS
Molecular Weight: 364.93
Structural Formula:

Chemical Name: 4-chloro-2-(1, 1-dimethylethyl)-5-[[4-(1, 1-dimethylethyl) phenyl]methyl]thio]-3(2H)-pyridazinone
Form: Solid
Color: Light tan
Odor: Vanilla
CAS No.: 96489-71-3

2. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Composition</th>
<th>CAS No.</th>
<th>Content %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridaben</td>
<td>96489-71-3</td>
<td>95.0</td>
</tr>
<tr>
<td>Other ingredients</td>
<td></td>
<td>5.0</td>
</tr>
</tbody>
</table>

3. Hazards Identification
Emergency Overview: May be fatal if inhaled. Do not breathe dust or spray mist. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Do not get in eyes or on clothing. Wear goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling.

4. First Aid Measures

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Note to physician: This compound does not cause any definitive symptoms that would be diagnostic. No specific antidote is available. Treat the patient symptomatically.

5. Fire-Fighting Measures

Extinguishing Medium: Use water fog, foam, CO\(_2\), or dry chemical extinguishing media.

Special Fire-Fighting Procedures: Firefighters should be equipped with self-contained breathing apparatus and turnout gear. Care should be taken to decontaminate firefighters and equipment.

Unusual Fire Explosion Hazards: Explosive dust/air mixtures can form in atmospheres as low as 9% oxygen. Ignition energy required is as low as 15 millijoules. Typical dust/air mixtures capable of exploding contain 40 g per cubic meter. Exotherm initiation temperature (Grewer oven): 394\(^\circ\) C

6. Accidental Release Measures

General Procedures: Emergency response works should use SCBA with Level B protection if dusts will be generated. Dry material may be recovered and returned to original container for use. Dike and contain spill with inert material and transfer liquid and solid diking material to separate containers for disposal. Keep the spill out of all sewers and open bodies of water.

7. Handling and Storage
Handling: Wash hands with soap and water after handling product. Avoid container breakage. Avoid inhalation or contact with skin, eyes, or clothing. Do not contaminate water sources when disposing of equipment wash waters. Keep out of lakes, streams, or ponds. Keep out of reach of children.

Storage: See Label. Do not contaminate water, food, or feed by storage or disposal. Keep away from children. Store in a cool, dry place away from heat or open flame. Package contains water-soluble bags inside a foil liner. Do not remove the water-soluble bags from the overwrap except for immediate use. If all the water-soluble bags are not used, carefully reseal the overwrap. The water-soluble bags may break if they are exposed to moisture, handled excessively, or handled with wet hands or wet gloves.

8. Exposure Controls/Personal Protection
Respiratory Protection: Operators, maintenance, or any worker potentially exposed to dust/mist must wear supplied air respirators or self-contained breathing apparatus.
Eye Protection: Chemical goggles.
Protective Clothing: Disposable hooded coveralls, such as tyvek, boots, and gloves.
Ventilation: Dust collectors need to be designed to trap and hold the potentially explosive and toxic particles.

9. Physical and Chemical Properties
Melting point: 111-112°C
Relative density: 1.22 @ 20°C
Vapor pressure: 0.25 mPa @ 20°C
PH: 8.7 - 8.8
Solubility In Water: Dispersible

10. Stability and Reactivity
Conditions To Avoid: Heat and open flame.
Stability: Stable under normal conditions; Relatively unstable to light.
Polymerization: Will not occur
Incompatible Materials: Avoid contact with strong oxidizing agents.
Comments: Pyridaben is not an oxidizer and is not corrosive to metal.

11. Toxicological Information
Rat, Acute Oral LD50 = 1930 mg/kg
Rat, Acute Dermal LD50 > 2000 mg/kg
Rat, Acute Inhalation LC50 (4 hour) = 0.09 mg/L
Rat, Acute Inhalation LC50 (1 hour) (calculated) = 0.36 mg/L
Rabbit, Eye Irritation - not irritating
Rabbit, Skin Irritation - Non irritating to skin
Guinea pig, Dermal Sensitizer - Not sensitizing

12. Ecological and Ecotoxicological Information
For the active ingredient:
Bobwhite Quail, Oral LD50 > 2250 mg/kg
Mallard Duck, Oral LD50 > 2500 mg/kg
Carp LC50 : <0.5mg/l (48h)
Bee oral LD50 : 0.55μg/bee (24)

13. Disposal Considerations
All pesticide waste are considered acutely toxic. Dispose of in an approved manner (consult local authority) only as a last resort. Otherwise, apply according to label instructions. Consult label and Directions For Use.

14. Transport Information
Not applicable.

15. Regulatory Information
Not applicable.

16. Other Information
All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS 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. It is the responsibility of persons on receipt of this MSDS 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 the product. If the recipient subsequently produce formulations containing this
product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.