1. Chemical Product Identification

Product Name: Diphacinone
Molecular Formula: C\textsubscript{23}H\textsubscript{16}O\textsubscript{3}
Molecular Weight: 340.37
Structural Formula:

![Structural formula of Diphacinone]

Chemical Name: 2-(diphenylacetyl)-1H-indene-1, 3(2H)-dione
Form: Powder
Color: Yellow
Odor: Odorless
CAS No.: 82-66-6

2. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Composition</th>
<th>CAS No.</th>
<th>Content %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphacinone</td>
<td>82-66-6</td>
<td>96.0</td>
</tr>
<tr>
<td>Other ingredients</td>
<td></td>
<td>4.0</td>
</tr>
</tbody>
</table>

3. Hazards Identification
Slightly irritating to the eyes. The active ingredient is designed to cause bleeding after repeated ingestion.

4. **First Aid Measures**
   
   **Eyes:** If this product comes into contact with eyes, hold open and wash with running water for at least 15 minutes.
   
   **Skin:** If product gets on skin, immediately remove contaminated clothing and wash skin thoroughly with soap and water to remove material. If you begin to feel unwell, or if irritation persists, seek medical attention.
   
   **Inhalation:** If vapors or mists have been inhaled, and irritation or unusual symptoms have developed, remove to fresh air and observe until recovered. If irritation or symptoms persists more than about 30 minutes, seek medical advice.
   
   **Swallowed:** If swallowed, do not induce vomiting. Wash mouth with water and give a glass of water to drink. Seek medical attention.

5. **Fire-Fighting Measures**
   
   **Extinguishing media:** Extinguish with water, foam or inert gas.
   
   **Measures unsuitable for safety reasons:** None
   
   **Protective equipment:** Firefighters should be equipped with protective clothing and self-contained breathing apparatus.

6. **Accidental Release Measures**
   
   **Personal protection:** Gloves should be worn during clean up.
   
   **Environmental protection:** Avoid entry to watercourses.
   
   **Clean up and disposal:** Sweep up spilled material, place in properly labeled container for disposal or re-use. Dispose of all wastes in accordance with all local, regional and national regulations.

7. **Handling And Storage**
   
   **Handling:** Keep product in the original container. Do not handle the product near food, animal foodstuffs or drinking water. Keep out of reach of children. Do not use near heat sources, open flame, or hot surfaces. Wash thoroughly with soap and water after handling.
   
   **Storage:** Store in a cool, dry place inaccessible to children, pets and wildlife. Keep container tightly closed when not in use. Avoid contamination of lakes, streams and ponds by use, storage and disposal.
8. **Exposure Controls/Personal Protection**
   Tightly woven long-sleeve shirt and long pants, rubber gloves, boots, face shield. Wear clean clothing each day, launder before reusing. Remove contaminated clothing immediately. Wash eyes with water. Wash other affected parts of body with soap and water. If the extent of contamination is unknown, bathe body thoroughly, change clothing.

9. **Physical and Chemical Properties**
   Appearance: Yellow powder
   Melting point: 146°C
   Octanol-water partition coefficient at pH 7 & 20°C: LogP<sub>OW</sub>=4.85
   Vapour pressure at 25°C: 1.37 X 10<sup>-05</sup> mPa
   Henry's law constant at 20°C: 6.38 X 10<sup>-09</sup>
   Specific gravity: 1.28g/cm<sup>3</sup>
   Solubility: In water at 20°C 0.3 mg/l; In organic solvents at 20°C 22.9g/l in Acetone, 16.8 g/l in Ethanol, 1224 mg/l in Heptane, 43 g/l in Xylene.

10. **Stability and Reactivity**
    **Stability**: Stable if stored in original container in a cool, dry location
    **Incompatibility/conditions to avoid**: Strongly alkaline materials.
    **Hazardous decomposition products**: Oxides of carbon

11. **Toxicological Information**
    Acute oral LD<sub>50</sub> for rats: 2.3mg/kg,
    Acute dermal LD<sub>50</sub> for rats: <200mg/kg
    Inhalation for rat (4h): 0.1mg/l
    Not irritant to rabbit eyes and skins
    No sensitizing

12. **Ecological And Ecotoxicological Information**
    **Environmental behavior**: Solid, non-volatile. Material is essentially insoluble in water.
    **Environmental toxicology**: Prevent access to non-target animals and birds.
    LC<sub>50</sub> for mallard: 3258mg/kg
    LC<sub>50</sub> for blugill: 7.6mg/l
    LC<sub>50</sub> for rainbow trout: 2.8mg/l
LC₅₀ for channel catfish: 2.1mg/l

**Effects on wastewater treatment:** Unlikely to have any effect on wastewater treatment.

13. **Disposal Considerations**

Waste disposal method: Wastes resulting from use may be disposed of on-site or at an approved waste disposal facility. Dispose of all wastes in accordance with all local, state and national regulations.

14. **Transport Information**

UN No.: 2588

**Classification:** Not regulated or not classified as dangerous by DOT (USA), IATA (Air), or IMDG (Vessel).

**Shipping name:** Rodenticide containing Diphacinone.

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.