GPS Safety Summary

Acetoacetanilide

Chemical Identity

Name: Acetoacetanilide
CAS number: 102-01-2
Molecular formula: $C_{10}H_{11}NO_2$

Structure

![Structure of Acetoacetanilide]

Product Uses

Acetoacetanilide is used as an intermediate under strictly controlled and rigorously contained conditions for the manufacture of other chemical products.

Health Information

Human Health Safety Assessment

Note: The information contained in the table below may be useful to someone handling the concentrated substance such as a manufacturer or transporter. Consumers are not likely to come in contact with the concentrated substance. The data, while verifiable, are not intended to be comprehensive nor replace the data found in the (M)SDS.

IUPAC name: 3-oxo-N-phenylbutanamide
BASF brand names: -

For synonyms see end of document

Date of Issue: January 2013
### Effect Assessment

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute Toxicity</strong></td>
<td>Of moderate toxicity after single ingestion, single skin contact and short-term inhalation.</td>
</tr>
<tr>
<td><strong>Irritation</strong></td>
<td>Not irritating to the skin and eyes.</td>
</tr>
<tr>
<td><strong>Sensitization</strong></td>
<td>Skin sensitizing effects were not observed in animal studies.</td>
</tr>
<tr>
<td><strong>Mutagenicity</strong></td>
<td>The substance was not mutagenic in bacteria and in mammalian cell culture.</td>
</tr>
<tr>
<td><strong>Toxicity after repeated exposure</strong></td>
<td>The substance may cause damage to the hematological system even after repeated ingestion of low doses, as shown in animal studies. Danger of serious damage to health by prolonged exposure if swallowed.</td>
</tr>
<tr>
<td><strong>Toxicity for reproduction</strong></td>
<td>The results of screening studies in animals gave no indication of adverse effects on reproduction.</td>
</tr>
</tbody>
</table>

### Environmental Information

**Environment Safety Assessment**

*Note: The information in this chapter is intended to provide brief and general information of this substance’s environmental impact. The results in the table below refer to testing performed with the concentrated substance. The data contained in this section explain the relative effect of the concentrated substance on the environment, as defined by certain tests.*

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aquatic Toxicity</strong></td>
<td>With high probability acutely not harmful to aquatic life.</td>
</tr>
<tr>
<td><strong>Persistence and degradability</strong></td>
<td>Readily biodegradable.</td>
</tr>
<tr>
<td><strong>Bioaccumulation potential</strong></td>
<td>Accumulation in organisms is not expected.</td>
</tr>
</tbody>
</table>

### Physical/Chemical Properties

**Phys/Chem Safety Assessment**

- Acetoacetanilide is a white, odorless powder. The substance is non-flammable and non-explosive.

*Note: The results in the table below refer to testing performed with the concentrated substance. It is not intended to be comprehensive or to replace information found in the (M)SDS.*
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>78 °C at 1013 hPa</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Decomposes at 267 °C before boiling.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non-flammable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non-explosive</td>
</tr>
<tr>
<td>Self-ignition temperature</td>
<td>&gt; 440 °C</td>
</tr>
</tbody>
</table>

**Exposure Potential**

- **Workplace exposure:** Acetoacetanilide is used as an intermediate in industrial settings under strictly controlled and rigorously contained conditions. Therefore, releases and subsequent worker exposure are unlikely. Nevertheless, workers should follow the recommended safety measures in the extended Safety Data Sheet (eSDS).

- **Consumer exposure:** There is no intended use of acetoacetanilide in consumer products. Therefore, a health hazard due to exposure for the consumer is negligible.

- **Environmental exposure:** As described earlier, acetoacetanilide is used as an intermediate in chemical syntheses. It is exclusively used in industrial settings and hence releases to the environment are strictly controlled. A risk for the environment is considered to be negligible, since no significant releases into the environment are expected. Conclusively, all identified uses are safe for the environment based on the scientific facts summarized above and when carried out in compliance with recommended risk management measures and applicable regulations.

**Recommended Handling Measures**

The recommended safety measures generally apply in contact with the concentrated substance. It is NOT intended to replace the comprehensive guidance found in the (M)SDS, only supplement it. Please refer to the (M)SDS for specific safety and first aid measures.

When using concentrated chemicals always make sure that there is adequate ventilation. Always use appropriate chemical resistant gloves to protect your hands and skin and always...
wear eye protection such as chemical goggles. Do not eat, drink, or smoke where chemicals are handled, processed, or stored. Wash hands and skin following contact. If the substance gets into your eyes, rinse eyes thoroughly for at least 15 minutes with tap water and seek medical attention. For specific advice please consult the corresponding (Material) Safety Data Sheet of the substance.

All effluent releases that may include the substance must be directed to a (municipal) waste water treatment plant that removes the substance from the final releases to the receiving water.

**Regulatory Information / Classification and Labeling**

Under GHS substances are classified according to their physical, health, and environmental hazards. The hazards are communicated via specific labels and the (M)SDS. GHS attempts to standardize hazard communication so that the intended audience (workers, consumers, transport workers, and emergency responders) can better understand the hazards of the chemicals in use.

*Note: The hazard statements and symbols presented here refer to the hazard properties of the concentrated substance and are meant to provide a brief overview of the substance’s labeling. It is not intended to be comprehensive or to replace information found in the (M)SDS.*

**Labeling according to UN GHS**

UN GHS is the basis for country specific GHS labeling

![Signal word: Warning](image)

**Hazard statements:**
- **H302:** Harmful if swallowed.
- **H312:** Harmful in contact with skin.
- **H332:** Harmful if inhaled.
- **H373:** May cause damage to organs through prolonged or repeated exposure.

**Date of Issue:** January 2013
Additional information


2. Information on registered substance (ECHA) [http://apps.echa.europa.eu/registered/registered-sub.aspx]


Most commonly used synonyms

» Butanamide, 3-oxo-N-phenyl- (9CI)
» Acetoacetanilide (8CI)
» .alpha.-Acetyl-N-phenylacetamide
» .alpha.-Acety lacetanilide
» .beta.-Ketobutyranilide
» 1-(Phenylamino)-1,3-butanedione
» 1-(Phenylcarbamoyl)-2-propanone
» 3-Oxo-N-phenylbutanamide
» Acetoacetamidobenzene
» Acetoacetic acid anilide
» Acetoacetic anilide
» N-(Acetoacetyl)aniline
» N-Phenyl-3-oxobutanamide
» N-Phenylacetoacetamide

Disclaimer

This Product Safety Summary is intended to provide a general overview of the chemical substance. It contains basic information and is not intended to provide emergency response information, medical information or treatment information. The summary cannot be relied on to provide in-depth safety and health information. In-depth safety and health information must be obtained from the Material Safety Data Sheet ((M)SDS) for the chemical substance.
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Contact

For further information on this substance or GPS safety summaries in general, please contact: info.gps@basf.com