GPS Safety Summary
Urea, reaction products with formaldehyde and glyoxal

Chemical Identity

Name: Urea, reaction products with formaldehyde and glyoxal

CAS number: 92908-35-5

Molecular formula: ingredient: C₂H₂O₂.CH₄N₂O.CH₂O

Structure: not applicable, substance is a mixture (UVCB)

IUPAC name: Urea, reaction products with formaldehyde and glyoxal

BASF brand names: <confidential>

Product Uses

92908-35-5 is used in industrial settings as textile chemical. As crosslinking agent it is employed for easy-care resin finishing of woven and knitted fabrics composed of cellulosic fibers and their blends with synthetic fibers.

It is in use as intermediate

Benefits

The advantages of the use of 92908-35-5 in resin finishing of textiles based on easy care effects resistant to repeated washing and dry cleaning are the improved dimensional stability and shape retention, the fewer tendencies to creasing, a higher durability and that they are easier to iron. Fabrics are softer and smoother, show less change in shade and fewer tendencies to pilling, especially of fiber blends.

Date of Issue: 01. July 2011
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.

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute Toxicity</strong></td>
<td>Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Inhalation-risk test (IRT): No mortality within 8 hours as shown in animal studies. The inhalation of a highly saturated vapor-air mixture represents no acute hazard.</td>
</tr>
<tr>
<td><strong>Irritation</strong></td>
<td>Not irritating to the skin.</td>
</tr>
<tr>
<td></td>
<td>Not irritating to the 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. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals.</td>
</tr>
<tr>
<td><strong>Toxicity after repeated exposure</strong></td>
<td>No substance-specific organotoxicity was observed after repeated administration of high doses to animals.</td>
</tr>
<tr>
<td><strong>Toxicity for reproduction</strong></td>
<td>Repeated oral uptake of the substance did not cause damage to the reproductive organs. No indications of a developmental toxic / teratogenic effect were seen in animal studies.</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>Aquatic Toxicity</td>
<td>With high probability not harmful to aquatic life.</td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>Partly biodegradable.</td>
</tr>
<tr>
<td>Bioaccumulation potential</td>
<td>Not bioaccumulative.</td>
</tr>
</tbody>
</table>

Physical/Chemical Properties

Phys/Chem Safety Assessment

- 92908-35-5 in water is a clear, yellowish, homogeneous liquid which is miscible with water. 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>Liquid</td>
</tr>
<tr>
<td>Melting / freezing point</td>
<td>&lt; -100°C at 1013 hPa</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable, substance decomposes at 80°C.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not detectable</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>447°C</td>
</tr>
</tbody>
</table>

Exposure Potential

- **Workplace exposure:** Based on the very low toxicity of 92908-35-5 exposure is considered to be without risk. 92908-35-5 released during manufacturing or handling is of no concern for the health of workers since it does not induce any adverse effects at relevant doses. Nevertheless, workers should follow the recommended safety measures in the Extended Safety Data Sheet (eSDS). 92908-35-5 contains a very small amount of
chemically unbound formaldehyde, and if applied properly allows the legal limits on formaldehyde at the workplace.

- **Consumer exposure:** 92908-35-5is only used in industrial settings. Thus, direct consumer exposure to 92908-35-5is insignificant and a health hazard due to exposure for the consumer is negligible. 92908-35-5contains very small amounts of chemically unbound formaldehyde. Thus, in consumer products and finished goods free formaldehyde may only be present in trace amounts. Therefore, a risk for the consumer is negligible. However, instructions given on product labels for proper use should be carefully read and followed.

- **Environmental exposure:** 92908-35-5is with high probability not harmful to aquatic organisms and hence the substance is not considered to pose an unacceptable risk for the environment. It will be partly removed by biodegradation during waste water treatment processes. Substance that reaches surface water will not exist in the environment for extended time periods due to degradation by microorganisms and abiotic degradation processes. 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 prior to the receiving water.

### Regulatory Information / Classification and Labelling
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 labelling. 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

**Based on the available data, labeling is currently not required.**

**Additional information**

1. IFA GESTIS-database on hazardous substances  

2. 

3. Information on registered substance (ECHA)  

**Most commonly used synonyms**

- DMDHEU (1,3-dimethylol-4,5-dihydroxyethylene urea)

**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:
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