

## Material Safety Data Sheet

According to 91/155 EEC(2001/58 EC)

Printing date: 01.12.2006

Reviewed on: 01.12.2006

### 1 Identification of substance:

- **Product details:**
- **Trade name:** Melamine
- **Application of the substance / the preparation**  
Adhesives  
Glue/ Sizing agent
- **Supplier/Manufacturer:**  
Penpet Petrochemical Trading GmbH  
Merkur-Park  
Sieker Landstrasse 126  
22143 Hamburg  
Germany  
Tel: +49 40 675 799 0  
Fax: +49 40 675 799 99 / 88
- **Information department:** see above
- **Emergency information:** National Poisons Information Centre      Tel.: +44 (0)870 6006266

### 2 Composition/Data on components:

- **Chemical characterization:**
- **CAS No. Description:**  
108-78-1 melamine
- **Identification number(s):**
- **EINECS Number:** 203-615-4

### 3 Hazards identification

- **Hazard description:** not applicable
- **Information pertaining to particular dangers for man and environment:**  
No hazards to be particularly mentioned. Please note the information of this Material Safety Data Sheet.
- **Classification system:**  
The classification was made according to the latest editions of the EU-lists, and expanded using company data and specialized literature.

### 4 First aid measures

- **General information:** If symptoms persist or in case of doubt seek medical advice.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Wash with water and soap and rinse with plenty of water.  
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Do not induce vomiting.  
Rinse out mouth and then drink plenty of water.  
Call a doctor immediately.

### 5 Fire fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
Dangerous decomposition product see chapter 10: stability and reactivity

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- **Protective equipment:**

- Wear self-contained respiratory protective device.
- Do not inhale combustion vapours.

- **Additional information:**

- Collect contaminated fire fighting water separately. It must not enter the sewage system.
- Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **Person-related safety precautions:**

- Ensure adequate ventilation
- Wear protective clothing.
- Use respiratory protective device against the effects of fumes/dust/aerosol.

- **Measures for environmental protection:**

- Do not allow product to reach sewage system or any water course.
- Do not allow to penetrate the ground/soil.

- **Measures for cleaning/collecting:**

- Avoid dust formation absolutely. If necessary pick up with a tested and approved industrial vacuum cleaner.
- Send for recovery or disposal in suitable receptacles.

### 7 Handling and storage

- **Handling**

- **Information for safe handling:**

- Ensure good ventilation/exhaustion at the workplace.
- Prevent formation of dust.
- Any deposit of dust which cannot be avoided must be regularly removed.
- Avoid inhalation of dust.
- Avoid contact with eyes and skin.
- Avoid inhalation of vapours formed by heated product.

- **Information about protection against explosions and fires:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges

- **Storage**

- **Requirements to be met by storerooms and receptacles:** Store at ambient temperatures and at dry conditions.

- **Information about storage in one common storage facility:**

- Store away from foodstuffs.
- Store away from feed.
- Do not store together with acids.
- Store away from oxidizing agents.

- **Further information about storage conditions:** None.

- **Storage class** 11 Combustible solids

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:**

- Install appropriate mechanical ventilation.
- Keep away from open flames and other ignition sources.
- Protect against electrostatic charges.

- **Components with limit values that require monitoring at the workplace:** Not required.

- **Additional Occupational Exposure Limit Values for possible hazards during processing:**

- Observe general threshold limit for dust.

- **Additional information:** The lists that were valid during the creation were used as basis.

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- **Personal protective equipment**
- **General protective and hygienic measures:**  
 The usual precautionary measures should be adhered to when handling chemicals.  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Vacuum clean contaminated clothing. Do not blow or brush off contamination.  
 Use skin protection cream for skin protection.
- **Breathing equipment:**  
 Not necessary if room is well-ventilated.  
 Short term filter device:  
 Filter P1.  
 If vapors are formed use suitable respiratory protective device
- **Protection of hands:**  
 Protective gloves.  
 To avoid skin problems reduce the wearing of gloves to the required minimum.  
 Preventive skin protection by use of skin-protecting agents is recommended.  
 After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves:**  
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.  
 Adjust selection of glove material to the other substances used.  
 For undissolved solid substances following materials may be suitable:  
 Nitrile rubber, NBR  
 Butyl rubber, BR  
 Polychloroprene rubber (CR)  
 Fluorocarbon rubber (FKM)
- **Penetration time of glove material:**  
 The exact break-through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** At formation of dust or insufficient ventilation: Tightly sealed goggles.
- **Body protection:** Protective work clothing.

## 9 Physical and chemical properties:

### · General Information

- |  |  |
|--|--|
| <b>Form:</b>   | Crystalline powder   |
| <b>Colour:</b>   | White<br>Colourless  |
| <b>Odour:</b>  | Weak, characteristic   |
| <b>· Change in condition:</b>                            |  |
| <b>Melting point/Melting range:</b>                      | ~ 360°C  |
| <b>Boiling point/Boiling range:</b>                      | > 280°C<br>sublimates<br>Decomposition   |
| <b>· Flash point:</b>                                    | > 280°C  |
| <b>· Flammability (solid, gaseous)</b>                   | Product is not flammable.  |
| <b>· Danger of explosion:</b>                            | Product is not explosive. However, formation of explosive air/dust mixtures is possible. |
| <b>· Density at 20°C:</b>                                | 1.57 g/cm <sup>3</sup>   |
| <b>· Solubility in / Miscibility with Water at 20°C:</b> | 3.1 g/l  |
| <b>· Segregation coefficient (n-octanol/water):</b>      | -1.14 log POW  |

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### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
 No decomposition if used and stored according to specifications.  
 To avoid thermal decomposition do not overheat.  
 At temperatures above 280° C ammonia is formed.
- **Materials to be avoided:**  
 Strong acids  
 Strong oxidants
- **Dangerous reactions:** Strong exothermic reaction with above-mentioned substances.
- **Dangerous products of decomposition:**  
 In the case of fire or at high temperatures the formation of the following decomposition products is possible.  
 Carbon monoxide and carbon dioxide  
 Nitrogen oxides (NO<sub>x</sub>)  
 Ammonia  
 Hydrogen cyanide (prussic acid)

### 11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**  
**108-78-1 melamine**  
 Oral LD<sub>50</sub> 3161 mg/kg (rat)
- **Primary irritant effect:**
- **on the skin:** No irritation, but slight irritation or redness is possible after long or repeatedly mechanical contact.
- **on the eye:** Eye irritation is possible after mechanical influence (dust).
- **Sensitization:** No sensitizing effects known.
- **Other information (about experimental toxicology):** Mutagenicity (mammalian cell test): micronucleus negative
- **Additional toxicological information:**  
 When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.  
 The substance is not subject to classification according to the latest version of the EU lists.

### 12 Ecological information

- **Information about elimination (persistence and degradability):**
- **Other information:** Not biodegradable
- **Behaviour in environmental systems:**
- **Mobility and bioaccumulation potential:** Log POW < 0 - not lipophilic, no bioaccumulation.
- **Ecotoxicological effects:**
- **Aquatic toxicity:**  
**108-78-1 melamine**  
 EC<sub>50</sub>/48h > 2000 mg/l (daphnia magna)  
 EC<sub>50</sub>/96h 940 mg/l (algae)  
 LC<sub>50</sub>/96h > 3000 mg/l (poecilia reticulata)
- **Other information:** Can be degraded effectively in adapted sewage treatment plants
- **General notes:**  
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
 According to appendix 3 of VwVwS dated 17.05.1999 (German regulation)  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
 Danger to drinking water is possible if large quantities leak into the ground or into water course.

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### 13 Disposal considerations

- **Product:**
- **Recommendation:**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal according to instructions of local authorities.

- **European waste catalogue:**

16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

- **Uncleaned packagings:**

- **Recommendation:**

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.  
Disposal must be made according to official regulations.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**

- **ADR/RID class:** -

No hazardous good according to the regulation.

- **Maritime transport IMDG:**

- **IMDG Class:** No hazardous good according to the regulation.

- **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** No hazardous good according to the regulation.

### 15 Regulations

- **Markings according to EC guidelines:**

The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).  
Observe the general safety regulations when handling chemicals

- **National regulations**

- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Replaces version dated:** 15.11.2002

- **Department issuing MSDS:**

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