

The World of Bookbinding.



"EC Safety data sheet"

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1. Name of substance/preparation and company

Product information (Trade name):

PLAKAL 371

Main application: Adhesive for mechanical bookcase production and laminating files

2. Potential hazards

- No special hazards for human beings or the environment.
- Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS): Not classified.

3. Composition/Ingredient Information

Chemical characteristics of the preparation.

- Description: Water-based modified hot setting glue. - The main ingredients are water and glutine. Glutine is a protein which belongs to the scleroproteins. Its composition is similar to that of gelatine, but it is of inferior purity. It also contains unobjectionable additives.
- Hazardous ingredients: None.

4. First aid measures

- General information: The preparation is used in the molten state on special machinery at temperatures of approximately 60°C.
- After inhalation: If used according to directions, there will be no development of harmful fumes.
- After skin contact without burning (scalding): For hygienic reasons, we recommend washing the affected area with water and soap. In the case of a burn proceed as when treating a burn caused by harmless fluids.
- After eye contact in the molten state: Wash with water. - Consult medical practitioner!
- After swallowing: Ingestion of large amounts can cause health trouble. Consult medical practitioner!
- Directions for the medical practitioner: The main ingredients are readily digestible or inert.

5. Fire fighting measures

- Directions: The preparation has self-extinguishing properties and does not pose a fire hazard. Use fire fighting measures according to the surroundings.
- Suitable fire extinguishing substances: See 'directions'.
- Fire extinguishing substances that are not suitable for safety reasons: See 'directions'.
- Special risks associated with the preparation, its combustion products or gas emissions: Not known.
- Special protection equipment for fire fighting: See 'directions'.

6. Measures to be taken if the substance was inadvertently released

- Personal precautionary measures: The solid preparation does not pose any handling hazards in the delivery state and at ambient temperature. However it is intended for use in the molten state at 60°C. Therefore avoid skin and eye contact of the molten preparation.
- Environmental protection measures: The preparation is solid at ambient temperatures. In this state no special environmental protection measures have to be taken. At elevated temperatures e.g. during fire, it forms a molten mass which then solidifies to a jelly when ambient temperature drops below 35°C.
- Measures for cleaning and removal: After cooling, the preparation may be removed mechanically. In the molten state it can be absorbed by means of sand.
- Additional directions: The preparation shows moisture expansion in cold water. In warm water (>35°C) it dissolves. It readily degrades in adapted biological purification plants.

7. Handling and storage

- Directions for safe handling: No special directions.
- Directions for fire and explosion protection: No fire or explosion hazard.
- Requirements for storage rooms and containers: Store in a cool and dry place for best storage stability.
- Directions for joint storage: No special directions.
- Further directions for storage conditions: No further directions.
- Storage classification: No hazardous material.

8. Exposure limits and personal protection equipment

- Additional directions for the design of technical plant: None.
- Ingredients subject to workplace-specific limit values: None.
- General protection and hygienic measures: None.
- Protection against inhalation: None.
- Protection of hands: Use of protective gloves, for example thermally insulated rubber gloves, is recommended when directly handling the preparation in the molten state.
- Protection of eyes: Use of protective goggles is recommended when directly handling the preparation in the molten state.
- Protection of body: No special protection of body required.

9. Physical and chemical properties

Appearance:

- Consistency: Stable jelly.
- Colour: Light brown.
- Smell: Typical/mild.

Safety data:

- Change of state solid/fluid: Approximately 30-40°C.
- Flash point: Not applicable (water-based preparation).
- Inflammability: Not applicable (self-extinguishing).
- Ignition point: > 200°C.
- Spontaneous Ignition: None.
- Fire propagating properties: None.
- Explosion hazard: None.
- Explosibility limit: Not applicable (water-based preparation).
- Vapour pressure at 20°C: Not established (water-based preparation).

- Density at 20°C: approximately 1,15 g/cm³
- Solubility in water: Unlimited miscibility. (Insoluble in organic solvents and grease)
- pH-Value at 60°C: 6 - 7
- Distribution coefficient n-octanol/water: Not known.
- Viscosity (Haake rotation viscometer) at 60°C:
approx. 2650 mPa*s
- Solvent separation test: Not applicable (No organic solvent content).
- Solvent content: 0%
- Other information: None.

10. Stability and reactivity

- Conditions to be avoided: Long-term exposure to temperatures above 65°C will lead to thermal degradation of the glutine molecule without dangerous reactions.
- Materials to be avoided: Materials which react with water.
- Hazardous decomposition products: Not known.
- Other information: Heating up to 200-300°C will cause carbonization and puff-up of the preparation. After removing the heating source the preparation shows self-extinguishing properties.

11. Toxicological data

- Acute toxicity: No ingredients with compulsory identification.
- Subacute to chronic toxicity: No research results.
- Experiences in terms of human toxicology: No negative experiences.
- Other information: None.

12. Environment related data

Elimination information (Persistence and degradation)

- Valuation text: According to our experience completely biodegradable.
- Other information: None.

Further ecology directions

- AOX-related directions: Contains negligibly small amounts of halogen-organic compounds.
- Formulations contain neither heavy metals nor heavy metal compounds, and comply with EN 71-3 (Safety of toys, Part 3: Migration of specific elements).
- General directions: None.

13. Directions for disposal of waste

Product:

- Direction: The preparation is degradable and compostable, washing water may be discharged to communal purification plant.
- Waste code number under European Catalog of Wastes: 080403
Wastes of water-miscible adhesives and packing compound (not subject to monitoring).

Uncleaned packaging:

- Material is removable from PE-packaging foil without any residues.
- Recommended cleaning agent: If at all necessary, warm water.

14. Transport data

- No hazardous goods.

15. Regulations

- No compulsory identification under EC directives and national regulations.
- Classification: Water-hazard rating 1 (Self-classification).

16. Other information

- This information is based on our present knowledge. However it is not to be understood as a legally binding assurance of product properties.