# MHS-10

Methyl Hydrogen Polysiloxane Resin



Methyl Hydrogen Polysiloxane MHS-10 is nontoxic and insipid. As there are fair quantity of relatively active Si-H bonds in the molecule, under the action of catalysts it can react with chemicals containing active groups, such as double bonds or hydroxyl groups.

This product can be converted into film and used to produce a resilient waterproof coating on various materials by using metal salt catalyst at low temperature. It equips itself with outstanding water repellent property which prevents damage due to moisture, as well as mildew and rust development. Besides, its high vapor permeability allows the material to breathe and let water, vapor escape to the outside without causing damage.

**Special features**

- essentially non-toxic
- solvent-free
- cures to give a durable film

**Technical information**

- delivery form liquid
- appearance yellowish clear liquid
- active matter content 100 %
- viscosity at 25 °C approx. 5 - mPa s
- SIH AS H 1.40 -1.75 %

**Application**

- Hydrophobing treatment of hardwood
- Treatment for hardwood to make them water repellent

**Processing instructions**

- Suitable catalysts in order of increasing activity include zinc octoate (22% zinc), iron octoate (6% iron), dibutyl tin dilaurate, and tin octoates (28% tin).
- A typical catalyst concentration is 0.5% to 3%. Concentrations of the more active catalyst must not be increased to the point that bath life becomes too short.
- Forced drying, e.g., in a convection oven, is only possible in presence of air humidity. The cross-linking proceeds via a hydrolysis/condensation reaction.
- The actual curing time will vary with the surface being treated as well as with the catalyst

**Dilution**

Dilution is possible with organic solvents, e.g. aromatic (xylene), esters (methoxypropyl acetate, butyl acetate) and ketones.

**Baking conditions**

- dust-dry at ambient temperature (23 °C) after 1 - 2 hours
- reaches full cure and full mechanical strength after 5 - 7 days

**Registration status**

MHS-10 respectively its ingredients are listed in the following chemical inventories: AICS, ECL, EINECS, ENCS, IECSC, NDSL, PICCS, TSCA, NZIOC, TCSI.
All intentional ingredients are listed on the TSCA inventory or comply with the TSCA Polymer Exemption criteria according 40 CFR 723.
All intentional ingredients are listed on the ECL inventory or comply with the Polymer Exemption criteria.
All intentional ingredients are listed on the PICCS inventory or comply with the Polymer Exemption criteria.

**Storage stability**

When stored in an original unopened packaging between -10 and +25°C, the product has a shelf life of at least 24 months from the date of manufacture.
However, contact with tin (e.g. with metal containers) will shorten storage stability.

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