## INSTRUCTIONS

**HMDS**
(hexamethyldisilazane)

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>TS-84769</td>
<td>HMDS (hexamethyldisilazane), 100 g</td>
</tr>
<tr>
<td>TS-84770</td>
<td>HMDS (hexamethyldisilazane), 25 g</td>
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Molecular Weight: 161.4

Storage: Store product at room temperature.

*This product is guaranteed for one year from the date of purchase when handled and stored properly.*

### Introduction

HMDS is used for deactivating HPLC or GC packings and glass wool. HMDS is also used to treat GC injection port glass inserts. Several methods are available for deactivating surfaces with HMDS. The item(s) to be deactivated may be dipped in a 5-10% solution of the reagent in a non-reactive solvent. Vapor phase deactivation may be performed by pulling straight vapor into an evacuated container containing the item to be deactivated. To deactivate glass wool, a few milliliters of HMDS may be added to a beaker along with the item and a watch glass placed on top of the beaker.

In addition to deactivation of glass surfaces, HMDS is a popular choice for silylation of sugars and related substances. HMDS greatly extends the practical range of GC, improving chromatographic results in the silylation of sugars and related substances.

### Procedure for Trimethylsilylation of Sugars and Related Substances

1. Combine 510 mg carbohydrate sample, 1.0 ml anhydrous pyridine, 0.2 ml HMDS and 0.1 ml TMCS in a 3.0 ml Reacti-Vial ⇔ Small Reaction Vial.
2. Cap vial and shake vigorously for 30 seconds.
3. Incubate at room temperature for 5 minutes or until derivatization is complete.
4. Analyze by GC.

**Note:** When TMCS is added, the solution may become cloudy from fine precipitate of ammonium chloride. Precipitate will not interfere with gas chromatography. Carbohydrates may be warmed for 10-20 minutes at 75-85°C to hasten dissolution.

### Procedure for Silylating Syrups and Starch Hydrolyzates

**CAUTION:** Considerable heat, ammonia gas and pressure are emitted during the reaction. Do not pre-mix.

1. Place 60-70 mg of 80% solids syrup in a 3.0 ml Reacti-Vial ⇔ Small Reaction Vial.
2. Add 1.0 ml pyridine and dissolve.
3. Add 0.9 ml HMDS and mix.
4. Add 0.1 ml trifluoroacetic acid.
5. Shake vigorously for 30 seconds.
6. Incubate at room temperature for 15 minutes.
7. Analyze by GC.
Related Thermo Scientific Products

TS-13222          Reacti-Vial® Small Reaction Vial, 3.0 ml, 12/pkg
TS-28904          Trifluoroacetic acid, 10 x 1 ml
TS-27530          Pyridine, 50 ml
TS-88530          TMCS (Trimethylchlorosilane), 25 g

References


Current versions of product instructions are available at [www.thermo.com/columns](http://www.thermo.com/columns).

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