

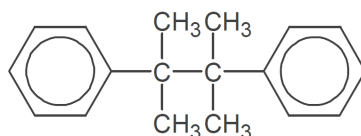
# PERGASAFE FR

## C-C Compound / Polymerization

### Description

2,3-Dimethyl-2,3-diphenylbutane  
95%, Flakes

PERGASAFE FR is used for the (co)polymerization of styrene and as a synergist in fire-retardant polystyrene formulations.



Molecular weight:

**238.4**

CAS No.:

**1889-67-4**

### Technical data

Appearance:

**White to light yellow powder**

Active substance assay:

**min. 95%**

Bulk density at 20°C:

**450 kg/m<sup>3</sup>**

Density at °C:

**1.1 g/cm<sup>3</sup>**

### Half life time

in chlorobenzene:

t <sub>1/2</sub>	10h	1h	1min
bei	<b>237°C</b>	<b>259°C</b>	<b>305°C</b>

### Storage

Maximum storage temperature (Ts max):

**30°C**

Storage stability as from date of delivery:

**3 months**

### Hazardous reactions

C-C Compounds are more or less stable products but will decompose under the influence of heat. To minimize a loss of quality during storage, it is important that the recommended maximum storage temperature is not exceeded. If a minimum storage temperature is given, an undesirable process such as a solidification or phase separation, is known to occur below this temperature.

The SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which a self accelerating decomposition may occur.

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### Application

PERGASAFE FR is used for the (co)polymerization of styrene and as a synergist in fire-retardant polystyrene formulations. Commonly polystyrene and expanded polystyrene (EPS) are made fire-retardant by the use of halogen-containing additives such as hexabromocyclododecane (HBCD). PERGASAFE FR can be used as synergistic coagent to reduce the amount of HBCD required. For this application PERGASAFE FR is well suited because it has sufficient thermal stability at the temperatures used in suspension polymerization. If PERGASAFE FR will be added to styrene monomer immediately before the onset of polymerization it will not have an impact to the polymerization process.

PERGASAFE FR can also be used for the mass polymerization of styrene.

### Packaging

**20kg cardboard box**

### Major decomposition products

### Safety and handling

Please refer to the material safety data sheet (MSDS) for information concerning safe storage, use and handling of PERGASAFE FR. This information should be thoroughly reviewed prior to acceptance of this product. The MSDS is available for downloading at [www.pergan.com](http://www.pergan.com) or through contacting Pergan directly.

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