Technical Data Sheet

Product name: UV-770
Chemical name: Bis(2,2,6,6-tetramethyl-4-piperidine)sebacate
Synonym: Tinuvin@770
CAS No: 52829-07-9
EC No: 258-207-9
Chemical formula: C_{22}H_{29}N_{3}O
Formula weight: 481

Quality norm: technical grade

Specification:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White with light yellow powder or pellet</td>
</tr>
<tr>
<td>Assay</td>
<td>99.0% min.</td>
</tr>
<tr>
<td>Melting point</td>
<td>81.0 ~ 85.0 °C</td>
</tr>
<tr>
<td>Volatile matter</td>
<td>0.5% max.</td>
</tr>
<tr>
<td>Ash content</td>
<td>0.1% max.</td>
</tr>
<tr>
<td>Light transmittance (425 nm)</td>
<td>98.0% min.</td>
</tr>
<tr>
<td>Light transmittance (500 nm)</td>
<td>99.0% min.</td>
</tr>
</tbody>
</table>

Characterization:
UV-770 is a hindered amine light stabilizer (HALS) for applications demanding particularly high light stability. It provides excellent light stability for thick sections but can also be used for articles with a high surface area such as films and tapes.

Application:
UV-770 is recommended to be used in polypropylene, impact modified PP (TPO), EPDM, polystyrene, impact poystyrene, ABS, SAN, ASA and polyurethanes and is also effective in polyamides and polyacetals.

Features:
UV-770 is a low molecular weight hindered amine light stabilizer that provides excellent light stability for thick sections and films in the recommended substrates. Benefit of using UV-770 is
the high light-stabilizing performance, particularly in PP thick sections. It has broad compatibility and can be easily dispersed.

Compared to conventional UV-absorbers, the effectiveness of UV-770 is less dependent on the polymer’s thickness. For this reason the use of UV-770 also provides good light stability in articles with higher specific surface, e.g. films and tapes. Combined with other HALS UV-770 is part of other synergistic blends, e.g. UV-791.

Guidelines:
The recommended concentrations range between 0.1% and 0.5%, depending on the substrate, processing conditions and application. The optimum level is substrate and application specific. Extensive performance data of UV-770 in various substrates and for various applications is available upon request.

Physical Properties:
- **Melting Range**: 81-85 °C
- **Flashpoint**: > 150 °C DIN 51584
- **Specific Gravity (20 °C)**: 1.05 g/cm³
- **Vapor Pressure (20 °C)**: 1.3 E-8 Pa
- **Bulk density**: 470 - 510 g/l

**Solubility (20 °C)** % w/w
- Acetone: 19
- Chloroform: 45
- Ethanol: -
- Ethyl acetate: 24
- n-Hexane: 5
- Methanol: 38
- Methylene Chloride: 56
- Toluene: -
- Water: < 0.01

**Volatile**
- Weight Loss (%)
- Temperature °C
- 0.7: 150
- 0.7: 175
- 1.0: 200
- 2.1: 225
- 7.2: 250
- 19.8: 275

Handling and Safety:
In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid continuous or repetitive breathing of dust. Use only with adequate ventilation. Avoid contact with eyes. Avoid release to the environment. Avoid dust formation and ignition sources.

For more detailed information please refer to the material safety data sheet.

Registration:
UV-770 is listed on the following Inventories:
- **Australia**: AICS
- **Canada**: DSL
China  Draft Inventory
Europe   EINECS
Japan    ENCS
Korea    ECL
Philippines PICS
USA      TSCA

Packing:
In 25kg net pp cartons on pallets or 20kg bags, 500kg (carton) per pallet or 500kg (bags) per pallet or as required or 110pound fibre drum on pallet with shrink film. Palletizing is wrapped and film shrunk
Loading capacity: 10mt per 20’FCL.

IMPORTANT:
The following supersedes Buyer’s documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer’s sole remedy and Seller’s sole liability for any claims shall be Buyer’s purchase price. Data and results are based on controlled or lab work and must be confirmed by Buyer by testing for the intended conditions of use. The product(s) has (have) not been tested for, and is (are) therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.
Please note that products may differ from country to country. If you have any queries, please kindly contact us.