**Function**

Vulkanol® 88 is a good general purpose plasticizer for natural and synthetic rubber, offering particularly good low temperature flexibility.

**Product description**

**Composition:** methylene bis (thioglycolic acid butyl ester)

**Appearance:** light yellow liquid

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal value</th>
<th>Unit</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractive index (at 20 °C)</td>
<td>1.490 ± 0.005</td>
<td>---</td>
<td>DIN 51 423</td>
</tr>
<tr>
<td>Density (at 20 °C)</td>
<td>1.100 ± 0.020</td>
<td>g/cm³</td>
<td>DIN 51 757 (Method 4)</td>
</tr>
<tr>
<td>Viscosity (at 20 °C)</td>
<td>15 ± 5</td>
<td>mPa.s</td>
<td>DIN 51 562</td>
</tr>
</tbody>
</table>

**Use**

**Mode of action:** Vulkanol® 88 is a good general purpose plasticizer for natural and synthetic rubber. It offers particularly good low temperature flexibility. Vulkanol® 88 is therefore commonly used in those rubbers which require polar plasticizers if they are to be used at low temperature (e.g. nitrile rubber and chloroprene rubber). It is used in roll covers, hose and seals. It is also used in conveyor belting and molded bellows.

**Processing:** Vulkanol® 88 is easy to incorporate and disperses well in rubber compounds. It shortens scorch time slightly in sulfur cured compounds. It is readily compatible up to the loading levels shown below.

**Vulcanizate Properties:** Vulkanol® 88 is an efficient plasticizer in rubber vulcanizates. It reduces hardness and modulus while increasing ultimate elongation. Its use allows the production of vulcanizates with high resilience down to temperatures well below 0 °C.

Vulcanizates incorporating Vulkanol® 88 have good compression set resistance at ambient and low temperature. In a typical sulfur cured nitrile rubber vulcanizate the inclusion of 20 phr of Vulkanol® 88 reduces the brittleness point from -23 to -37 °C.

**Dosage:** Typical levels of Vulkanol® 88 addition based on 100 parts by weight of elastomer are:

- NBR (e.g. Perbunan®, Krynac®) 30 phr
- CR (e.g. Baypren®) 30 phr
- NR 30 phr
- SBR (e.g. Buna® SE, Buna® VSL) < 30 phr
- IIR < 20 phr
Packaging
60 kg plastic bunghole drum on 480 kg skid or 230 kg plastic drum on 920 kg skid.

Storage stability
In original closed containers under cool (approximately 25 °C) and dry conditions 730 days from date of production.

Handling
For additional handling information on Vulkanol® 88 please consult current safety data sheet.

These raw material properties are typical and, unless specifically indicated otherwise, are not to be considered as delivery specification.

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