

## Technical Information

---

### Diphyl

---

**Article No.:**  
00033200

**Form supplied:**  
---

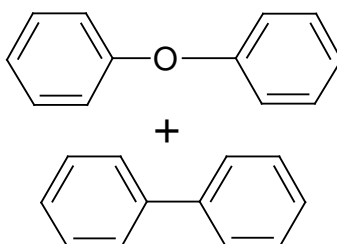
**CAS-No.** 000101-84-8 (Diphenyl oxide)  
000092-52-4 (Diphenyl)

**mm =** ---

**NET**

**Empirical formula:**  $C_{12}H_{10}O + C_{12}H_{10}$

**Structural formula:**



---

**Germ.** : Diphyl

**Fr.** : Diphyl

**Span.** : Diphyl

**Port.** : Diphyl

---

**Description :** Colourless to yellowish, clear liquid with characteristic odour (geranium).

---

Valid from: 2003-12-12  
Cancels edition dated: 2000-01-01  
Reason for issue: General overhaul

Specification No.: 00033200-1-02

Page 1 of 3

---

LANXESS Deutschland GmbH  
Business Unit Basic Chemicals  
D-51369 Leverkusen

## Diphyl

---

### Specification :

Assay of diphenyl oxide (gas chromatography):	72-75 %
Assay of diphenyl (gas chromatography):	25-28 %
Chlorine:	max. 10 mg/kg
Solidification point:	min. 12.2 °C
Water (K. Fischer):	max. 200 mg/kg

*Specification values are subject to constant monitoring.*

---

### Characteristic data :

Kin. Viscosity (DIN 51561):	approx. 4.05 mm <sup>2</sup> /s
Density (DIN 51757):	approx. 1062 kg/cm <sup>3</sup>
Neutralization number (acid) (DIN 51558 part 1):	approx. 0.01 mg KOH/g
Boiling temperature:	257 °C
Flash point (DIN 51758):	approx. 115 °C
Ignition temperature (DIN 51794):	approx. 615 °C
Lower explosion limit (132 °C):	approx. 1.01 % by vol.
Upper explosion limit (138.5 °C):	approx. 3.47 % by vol.
Solubility in water (20 °C) (Quentin methode):	
-Diphenyl oxide:	approx. 11.3 mg/l
Diphenyl:	approx. 3.9 mg/l
Surface tension (OECD-ring method):	approx. 0.04 N/m
Thermal conductivity (20 °C):	approx. 0.138 W/m k
Mean spec. heat (20 °C):	approx. 1.55 kJ/kg k

*Characteristic data provide further information about the product and are not subject to constant monitoring. They are therefore not binding (see notes in last section).*

## Diphyl

---

### Uses :

High-boiling, organic heat transfer fluid with a low viscosity and excellent thermal stability for cooling and heating in liquid and vapour phase applications (under N<sub>2</sub> pressure).

Range of use: +13 °C- +400 °C.

Typical applications: Fibre, plastics and chemical industries, solar process heat.

---

### Standard packing and storage :

Rail tanker/road tanker.

If correctly stored the shelf life is at least 2 years.

Rolling channel drum, contents approx. 215 kg.

If correctly stored and kept in the original sealed package, the shelf life is at least 2 years

---

### Shipping, toxicity and hazards :

Please note our EU-safety data sheet No. 013033.

---

This information, with the exception of the data given in the section „Specification“, and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with our General Conditions of Sale and Delivery.

---

Valid from: 2003-12-12

Cancels edition dated: 2000-01-01

Reason for issue: General overhaul

Specification No.: 00033200-1-02

Page 3 of 3