

TECHNICAL DATA SHEET



Trade name : PIPERONYL BUTOXIDE PRIME

This material complies with the WHO Specification 33/TC (September 2018)
and FAO Specification 33/TC (September 2018) for Piperonyl Butoxide

CHEMICAL IDENTIFICATION

Nomenclature

Common name : Piperonyl Butoxide
IUPAC : 5-[[2-(2-butoxyethoxy)ethoxy)methyl]-6-propyl-1,3-benzodioxole
CA name : 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy)methyl]-6-propyl-
Others : (Butylcarbityl) (6-propyl-piperonyl) ether
PBO

CAS number : 51-03-6

EC number : 200-076-7

Molecular formula : $C_{19}H_{30}O_5$

Molecular weight : 338.40

Structural formula : The chemical structure of Piperonyl Butoxide (PBO) is shown. It consists of a 1,3-benzodioxole ring system. At the 5-position of the benzene ring, there is a methyl group and a butoxy chain (CH₃CH₂CH₂CH₂O-). At the 6-position, there is a propyl group (CH₂CH₂CH₃). The dioxole ring is fused to the benzene ring at positions 1 and 3.

PRODUCT SPECIFICATIONS

Chemical assay (ENDQC-3 method by HRGC) :

Piperonyl Butoxide	: 97.0 % w/w min.
Butyl Carbitol [®]	: < 0.5 % w/w
Dipiperonyl methane (DPM)	: < 0.1 % w/w
Dipiperonyl ether (DPE)	: < 0.1 % w/w

Acidity number (ENDQC-6 method) : 0.1 mg KOH/g max.

Density (ENDQC-4 method) : 1.060 ($\pm$ 0.005) g/cm³ at 20°C

Colour (ENDQC-7 method) : 2.5 max (Gardner scale)

Appearance (visual method) : Pale yellow oily liquid

*NOTE: Endura reserves the right to make amendments to the data reported in this sheet either in compliance to any official body's updating or in agreement with Internal Company decisions.
The reported information is, to the best of our knowledge, as accurate and complete as possible and is given in good faith but without warranty from our part. Any use for Registration purposes must be authorised by Endura in advance.*

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ADDITIONAL INFORMATION

Odour : Mildly aromatic

Refractive index : 1.502 (± 0.005)

Boiling point : 203 °C at 278 Pa

Vapour pressure : 2.11×10^{-7} hPa at 60°C

Flash point : 179.2 °C

Solubility : Practically insoluble in water
Soluble in all common organic solvents including mineral oils and petroleum distillates

Partition coefficient
(Log Pow) : 4.8

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