



BSI Standards Publication

**Automotive fuels – Information on aniline,
N-methyl aniline, N-ethyl aniline, N,N di-methyl
aniline and secondary-butyl acetate when used
as blending components in unleaded petrol**

National foreword

This Published Document is the UK implementation of CEN/TR 17491:2020.

The UK participation in its preparation was entrusted to Technical Committee PTI/2, Liquid Fuels.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2020
Published by BSI Standards Limited 2020

ISBN 978 0 539 12267 1

ICS 75.160.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 April 2020.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

TECHNICAL REPORT

CEN/TR 17491

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

April 2020

ICS 75.160.20

English Version

**Automotive fuels - Information on aniline, N-methyl
aniline, N-ethyl aniline, N,N di-methyl aniline and
secondary-butyl acetate when used as blending
components in unleaded petrol**

Kraftstoffe - Leitfaden zum Mischen von Benzin -
Informationen zu Anilin, Anilinderivaten und
sekundärem Butylacetat

This Technical Report was approved by CEN on 6 April 2020. It has been drawn up by the Technical Committee CEN/TC 19.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents		Page
European foreword		3
1	Scope	4
2	Normative references	4
3	Terms and definitions	4
4	Introduction	5
5	Chemical compounds used as unleaded petrol blending components	5
6	Effects of SBA, aniline, NMA, NEA and DMA on engine and fuel quality	5
6.1	SBA	5
6.2	Aniline, NMA, NEA and DMA	6
7	Field experience	6
8	European specifications for unleaded petrol	7
Bibliography		8

European foreword

This document (CEN/TR 17491:2020) has been prepared by Technical Committee CEN/TC 19 “Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin”, the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

1 Scope

This document is intended to inform about the potential technical consequences on engine parts and fuel systems when some types of chemical compounds are used as blending components in unleaded petrol. This document is not meant to intentionally limit market fuel development.

The chemical compounds addressed, specifically, in this document are:

- sec-butyl acetate (SBA) (CAS 105-46-4),
- aniline (CAS 62-53-3),
- N-methyl aniline (NMA) (CAS 100-61-8),
- N-ethyl aniline (NEA) (CAS 103-69-5), and
- N,N di-methyl aniline (DMA) (CAS 121-69-7).

Other chemical compounds are not addressed in this document, however, attention is drawn to EN 228, which requires that unleaded petrol be free from any adulterant or contaminant that can render the fuel unacceptable for use.

NOTE 1 This document does not address environmental and/or health related issues. These aspects are beyond the scope of CEN/TC 19 activities.

NOTE 2 For the purposes of this document, the term “% (V/V)” is used to represent the volume fraction, φ .

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 228:2012+A1:2017, *Automotive fuels - Unleaded petrol - Requirements and test methods*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/ui>

3.1

accelerated test

test performed under controlled conditions aimed at reflecting in an engine but in a shorter time frame

Note 1 to entry For example, the effects observed on the lubricant over the oil drain interval.