

# DIN EN 16091:2022-12 (E)

## Liquid petroleum products - Middle distillates and fatty acid methyl ester (FAME) fuels and blends - Determination of oxidation stability by rapid small scale oxidation test (RSSOT)

---

<b>Contents</b>		<b>Page</b>
European foreword .....		4
1	Scope .....	5
2	Normative references .....	5
3	Terms and definitions .....	5
4	Principle .....	5
5	Reagents and materials .....	6
6	Apparatus .....	6
7	Sampling and sample handling .....	6
8	Performance check of the apparatus .....	6
9	Preparation of the apparatus .....	7
10	Procedure .....	7
11	Expression of results .....	8
12	Precision .....	8
12.1	General .....	8
12.2	Repeatability, r .....	8
12.3	Reproducibility, R .....	8
13	Test report .....	9
Annex A (normative) Apparatus description .....		10
A.1	General requirements .....	10
A.2	Assembly of apparatus .....	10
A.3	Reaction vessel .....	10
A.4	Screw cap .....	10
A.5	Electric heater .....	11
A.6	O-ring seals .....	11
A.7	Valves .....	11
A.8	Pressure sensor .....	11
A.9	Temperature sensor .....	11
A.10	Connecting pipes .....	11
A.11	Cooling fan .....	11
Annex B (informative) Determination of induction period .....		12
Annex C (informative) Test method and precision data at 120 °C .....		13

C.1	Background .....	13
C.2	Short description of the implementation of the RSSOT method using a reduced measurement temperature of 120 °C .....	13
C.3	Precision .....	13
C.3.1	General .....	13
C.3.2	Repeatability, r .....	14
C.3.3	Reproducibility, R .....	14
C.4	Outcome of the ILS .....	14
	Bibliography .....	15