

**Summary of physical properties of 4,4'-Methylenedianiline (4,4'-MDA), 2,4-toluenediamine (2,4-TDA), and 2,6-toluenediamine (2,6-TDA).**

				Substance		
				4,4'-MDA	2,4-TDA	2,6-TDA
Property	Method	Conditions	Units	Ref (1)	Ref (2)	Ref (3)
Melting point	OECD 102	1 atm	°C	90-92	99	103-105
Boiling point	OECD 103	1 atm	°C	398 ± 5	288 ± 2	289 ± 2
Density	Equiv. OECD 109	20 °C	kg/m <sup>3</sup>	1150	1256	1201
Vapor pressure	OECD 104	Extrapolated to 25 °C	Pa	(2.5 ± 0.5) x 10 <sup>-4</sup>	(1.7 ± 0.2) x 10 <sup>-2</sup>	(2.9 ± 0.2) x 10 <sup>-2</sup>
Water solubility	Equiv. OECD 105	25 °C, pH 7	g/L	1.01	38	54
Octanol-water partition coefficient	Equiv. OECD 107	25 °C	[log K <sub>ow</sub> ]	1.55	0.074	-0.137
Dissociation constant	OECD 112	20-22 °C	[pK <sub>a</sub> ]	4.96	5.1 / 2.7	5.1 / 3.1
Flash point	ASTM D3828-93		°C	228 ± 10	160 ± 5	158 ± 5
Autoignition temp.	IEC 79-4		°C	515 ± 5	505 ± 5	490 ± 5
Explosive	Theoretical assessment		[--]	NO	NO	NO
Oxidizing			[--]	NO	NO	NO

**References**

- (1) Macnab JI (1999) Determination of physical properties of 4,4'-MDA. III Report 11330. Manchester, UK: International Isocyanate Institute.
- (2) Macnab JI (2000) Determination of physical properties of 2,4-TDA. III Report 11381. Manchester, UK: International Isocyanate Institute.
- (3) Macnab JI (2001) Determination of physical properties of 2,6-TDA. III Report 11433. Manchester, UK: International Isocyanate Institute.