



ANNEX I – AdBlue® ISO 22241 Specifications

Technical requirements:

Quality parameters	Unit	Threshold limit		Test method
		min.	max.	
Urea content ^a	% (m/m) ^d	31.8	33.2	ISO 22241-2, Annex B ^e ISO 22241-2, Annex C ^e
Density at 20 °C ^b	kg/m ³	1087.0	1093.0	ISO 3675, or ISO 12185
Refractive index at 20 °C ^c	-	1.3814	1.3843	ISO 22241-2, Annex C
Alkalinity as NH ₃	% (m/m) ^d	-	0.2	ISO 22241-2, Annex D
Biuret	% (m/m) ^d	-	0.3	ISO 22241-2, Annex E
Aldehyde	mg/kg	-	5	ISO 22241-2, Annex F
Insolubles	mg/kg	-	20	ISO 22241-2, Annex G
Phosphate (PO ₄)	mg/kg	-	0.5	ISO 22241-2, Annex H
Calcium	mg/kg	-	0.5	ISO 22241-2, Annex I
Iron	mg/kg	-	0.5	
Copper	mg/kg	-	0.2	
Zinc	mg/kg	-	0.2	
Chrome	mg/kg	-	0.2	
Nickel	mg/kg	-	0.2	
Aluminium	mg/kg	-	0.5	
Magnesium	mg/kg	-	0.5	
Sodium	mg/kg	-	0.5	
Potassium	mg/kg	-	0.5	
Identity	-	Identical with the reference sample		ISO 22241-2, Annex J