

TECHNICAL DATA SHEET (TDS)

AUS 40

Product Names

SCR 40
Aqueous Urea Solution 40.0%
Marine Diesel Exhaust Fluid (DEF)
NOx reduction agent AUS 40

Application

Use in SCR Systems: For reducing nitrogen oxide (NOx) emissions in marine diesel engines and other applicable diesel engines such as those in train and rail applications, in addition to diesel powered generators.

Composition

Urea Content: 40% by weight (min. 39%, max. 41%)
Water Content: 60% deionized water

Chemical Description

Chemical Formula: $(\text{NH}_2)_2\text{CO}$
Molar Mass: 60.06 g/mol
CAS-Nr.: 57-13-6 (CAS: Chemical Abstract Service)

Physical Properties

pH: <10
Density at 20°C: 1105 - 1117 kg/m³
Refractive Index at 20°C: 1.3947 - 1.3982

Safety Information

Non-Hazardous: Non-flammable, non-combustible, non-toxic, and non-hazardous.
More information: Refer to the Safety Data Sheet (SDS) at <https://ausblue.com.au/resources/>

Storage and Handling / Shelf Life

Shelf Life: Shelf life is 12 to 18 months when stored between 0°C and 30°C, lasting longer at lower temperatures. Recommended between 10°C – 29°C.
Freezing and Thawing: Begins to thicken around 10°C, salts out near 3.3°C, and freezes at 0°C. If frozen, use after thawed.
Storage: Store sealed in dedicated containers out of direct sun.

Additional Information

Appearance: Colourless clear liquid
Odour: Potential for a slight ammonia odour

Standards and Compliance

ISO 18611-1:2014:

Ships and marine technology -- Marine NOx reduction agent AUS 40

Specifications

Test	Unit	Limits (Min.)	Limits (Max.)	Test Method
Urea content	% (m/m)	39	41	ISO 18611-2, Annex B ISO 18611-2, Annex C
Density at 20 °C	kg/m ³	1,105	1,177	ISO 3675 or ISO 12185
Refractive index at 20 °C	—	1.3937	1.3982	ISO 18611-2, Annex C
Alkalinity as NH ₃	% (m/m)	—	0.5	ISO 18611-2, Annex D
Biuret	% (m/m)	—	0.8	ISO 18611-2, Annex E
Aldehydes	mg/kg	—	100	ISO 18611-2, Annex F
Insoluble matter	mg/kg	—	50	ISO 18611-2, Annex G
Phosphate (PO ₄)	mg/kg	—	1	ISO 18611-2, Annex H
Calcium	mg/kg	—	1	ISO 18611-2, Annex I
Iron	mg/kg	—	1	ISO 18611-2, Annex I
Magnesium	mg/kg	—	1	ISO 18611-2, Annex I
Sodium	mg/kg	—	1	ISO 18611-2, Annex I
Potassium	mg/kg	—	1	ISO 18611-2, Annex I
Identity	—	identical to reference		ISO 18611-2, Annex J