

# MAK AdBlue®

Environment-friendly diesel exhaust fluid (DEF) for SCR systems in diesel engines

Premium diesel exhaust fluid that reduces air pollution created by diesel engines. It is a clear, non-toxic, non-polluting, and non-hazardous solution of pure automotive-grade urea in demineralized water. Urea content in the solution is closely controlled in the range of 31.8% to 33.2%. Selective Catalytic Reduction (SCR) system is used to reduce the amount of harmful NO<sub>x</sub> released into the atmosphere. It is injected into the exhaust pipeline. Within the SCR catalyst, the NO<sub>x</sub> is reduced to harmless nitrogen and water.

**Applications:**

It is specially designed for SCR systems used in diesel-powered vehicles (on-road and off-road) conforming to BS IV and BS VI emission norms. It is used to control NO<sub>x</sub> emissions.

**Performance/ Benefits:**

**Controls NO<sub>x</sub> Emission** – produces ammonia within SCR system that reduces NO<sub>x</sub> in the exhaust into harmless nitrogen and water.

**Environment Friendly** – is an aqueous solution, not flammable, non-polluting, and non-toxic.

**Lower Operating Cost** – low dosing rate ensures long fluid refill intervals. Reduces cost of operation.

**Excellent Compatibility** – offers excellent compatibility with catalysts of SCR systems.

**Performance Level/ Specification**

- Meets the requirements of
- ISO 22241:2019 (Part 1)

**Typical Physico-Chemical Data**

Characteristics	Method	Value
Appearance	Visual	Clear
Urea Content, % m/m	ISO 22241-2 Annex C	32.6
Refractive Index @20°C	ISO 22241-2 Annex D	1.38325
Alkalinity as NH <sub>3</sub> , % m/m	ISO 22241-2 Annex E	0.00195
Biuret, % m/m	ISO 22241-2 Annex G	0.23
Aldehydes, mg/ kg	ISO 22241-2 Annex F	0.98
Insoluble Matter, mg/ kg	ISO 22241-2 Annex G	1.99
Phosphate (PO <sub>4</sub> , mg/ kg)	ISO 22241-2 Annex H	0.15
Calcium, mg/ kg	ISO 22241-2 Annex I	<0.1
Iron, mg/ kg		<0.01
Copper, mg/ kg		<0.01
Zinc, mg/ kg		0.01
Chromium, mg/ kg		0.03
Nickel, mg/ kg		0.06
Aluminium, mg/ kg		<0.1
Magnesium, mg/ kg		0.03
Sodium, mg/ kg		<0.1
Potassium, mg/ kg		0.11
Identity		ISO 22241-2 Annex J

**Storage & Handling:**

The product should be stored in a cool and dry place away from direct sunlight. Keep it properly sealed to avoid contamination with fuel/ oil, dirt, and dust. Use dedicated handling equipment. Avoid freezing and using metal containers. Shelf life is 12 months under protected storage conditions.

**Health & Safety:**

It is unlikely to be hazardous when properly used in recommended applications. Contamination of the fluid from fuel, other oils, greases, chemicals, dirty water, etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended. For further guidance appropriate MSDS (Material Safety Data Sheet) may be referred.