

HD COOL ORA

Ready to use Cooling Fluid

DESCRIPTION

HD COOL ORA is a ready to use cooling liquid, anti-corrosion and anti-freeze, based on monoethyleneglycol, using organic additives (OAT – Organic Acid Technology).

APPLICATIONS

HD COOL ORA is strongly recommended for all cooling systems of heavy duty, construction, mining, agriculture vehicles and equipment, gardening, ships, stationary engines, ...

ADVANTAGES

- Optimal protection of cooling systems against freezing and metallic parts against corrosion.
- Excellent thermal exchange thanks to the OAT coolant technology, improving engine cooling efficiency and prevents from boiling.
- Anti-corrosion properties remaining at high temperature and through ageing thanks to the organic technology.
- Extended drain intervals thanks to low corrosion inhibitors consumption.
- Long lasting anti-corrosion properties on all engine components.
- Eliminates the risk of scaling and deposits in the cooling system.
- Avoids cavitation and increases water pump lifetime.
- Seals, hoses, pipes and plastic parts friendly.
- Nitrite free, amine free, phosphate free, borate free and silicate free.

TECHNICAL CHARACTERISTICS

CHARACTERISTICS	METHOD	HD COOL ORA
Color	Visual	Orange Fluo
Density at 20°C (68°F)	ASTM D5931	1.069 g/mL
pH	ASTM D1287	8.9
Initial crystallization	ASTM D1177	-37.0 °C / -35.0 °F
Freezing point	ASTM D1177	-37.0 °C / -35.0 °F
Freezing protection		-37.0 °C / -35.0 °F
Boiling point	ASTM D1120	109.0 °C / 228.0 °F

Contains a bitterness agent to prevent from drinking: coolants and antifreezes have a sweet taste but are harmful.

STANDARDS / APPROVALS / PERFORMANCE LEVEL

HD COOL ORA meets the following standards:

- BRITISH STANDARD - BS 6580
- JAPANESE STANDARD - JIS K2234
- KOREAN STANDARD - KSM 2142
- NATO - STANDARD: S-759
- ASTM STANDARD - D3306 / D4656 / D6210
- FRENCH STANDARD - NFR 15-601
- UNE STANDARD - 26-361-88/1



HD COOL ORA meets or exceeds the most common specifications and OEM requirements:

- JALOS - M325
- ADE -
- Bergen Engines - 2.13.01
- Case New Holland - MAT 3624
- CUMMINS - IS series u N14
- CUMMINS - CES 14603
- CUMMINS - CES 14439
- DETROIT DIESEL - DFS 93K217
- DEUTZ - DQC CB-14
- DEUTZ - 0199-99-2091 / 12
- Innio Jenbacher - TA 1000-0201
- JOHN DEERE - JDM H5
- KOMATSU - 07.982 (2009)
- LEYLAND - DW03245403
- LIEBHERR - MD1-36-130
- MACK - 014 GS 17009
- MAN - 324 typ SNF
- MAN B&W - A/S
- MAN B&W - AG D36 5600
- MITSUBISHI - MHI
- MWM - 0199-99-2091 / 12
- SACM DIESEL - DLP799861
- DAF - 74002
- RENAULT - 41-01-001/--S Type D
- FENDT -
- ISUZU -
- KOBELCO -
- MAK -
- MERCEDES-BENZ - MB 326.3
- MTU - MTL 5048
- WÄRTSILÄ - 32-9011
- Semt Pielstick -
- VAN HOOL -
- VOLVO - Construction
- VOLVO - Penta
- VOLVO - Trucks
- WAUKESHA -
- YANMAR -

RECOMMENDATIONS

- Ready to use, do not add any water.
- To be used for top-up or complete renewal of the cooling circuit for improved efficiency.
- Drain intervals: Refer to the manufacturers' recommendation.



DATA SHEET



- Attention, control or drain the coolant only when the engine is cold.
- Can be mixed with ethylene glycol based coolants.
- Avoid mixing with other products for maximum performance output of **HD COOL ORA**.
- This product should not be used to protect drinking water systems against freezing.

IMPORTANT NOTICE

All information and rules about health, safety and the environment are mentioned on the safety data sheet. It provides information about risks, safety procedures and first aid emergency rules. It clarifies all procedures to implement in the case of an accidental spillage, and for the disposal of the product and its effects on the environment. The safety data sheet is available on www.motul.com.

Our product contains natural additives which are likely to modify the colour of the concentrates without altering its performance. The specifications of our products are definite only at the time of order, and are subject to our general sale and guarantee conditions. To give our customers the latest technical developments, the general characteristics of our products may vary.