



COOLER-PROTECTING AGENT

ADDINOL PROTECT EXTRA

PRODUCT DESCRIPTION

ADDINOL Protect Extra is a high-quality, environmentally friendly anti-corrosion agent for all metals used in cooling circuits of engines including used solder alloys. The product ensures a stable protective effect on aluminium surfaces. Due to its optimised inhibitor technology it provides a long-term protection against all kinds of corrosion.

ADDINOL Protect Extra is no anti-freeze agent and only applicable at temperatures above 0°C.

APPLICATION

- Excellent suitability as anti-corrosion agent for the application in cooling circuits of all engines and aggregates in vehicles, ships and stationary plants
- Usable as cooling and rinsing agent
- Also fit for central heating plants, hydraulic plants and mining

APPLICATION NOTE

The concentrate must be diluted with water (see page 2). For the best optimal operation use soft and zinc-free water. Protective effect is up to 32,000 operating hours or five years. It is mixable with ADDINOL Antifreeze Extra without limitations. Please follow the specifications and instructions of equipment manufacturers.

DELIVERY

Delivery preferable in containers, drums and 20 l cans.

CHARACTERISTICS

- Outstanding corrosion protection
- Very good heat transfer
- Neutral to rubber and plastics
- Long lifetime

SPECIFICATIONS / APPROVALS

Approved by:

- MWM 0199-99-2091

Meets the requirements according to:

- MTU MTL 5049
- GE Jenbacher TA 1000-0200
- Deutz 0199-99-1115/6
- MAN 248
- GEC Alsthom
- Mercedes Benz 312.0
- Liebherr MD1-36-130
- Wärtsilä 32-9011
- Detroit Diesel PowerCool Plus
- MAK A4.05.09.01
- Porsche
- Ulstein Bergen 2.13.01
- New Sulzer Diesel TR 1508-10/94
- Waukesha
- Yanmar
- MIL-A-53009
- Navy BR 1326

STORAGE

In closed and lightproof containers at least 5 years. Storage at room temperature (max 35 °C). Do not expose to direct sunlight and store frost-free.

ADVANTAGES AND BENEFITS

- Protection of all metals used in the aggregate, e.g. aluminium, cast iron or copper
- Very good cooling effect
- Improved protection against leakages
- Cost saving
- Environmentally friendly



ADDINOL PROTECT EXTRA

SPECIFICATIONS AND TYPICAL PARAMETERS

Feature	Test condition / unit		Protect Extra	Method acc. to
Appearance			clear fluid	visual
Colour			colourless	visual
Density	at 20°C	kg/m ³	1.058	ASTM D 5931
pH value	concentrate		9.4	ASTM D 1287
Cloud point	concentrate	°C	-15	

5% solution in water

pH value			8.1	ASTM D 1287
Influence on non-metals			no influence	GME 60 255
Hard water resistance			no	VW PV 1426

Mixing ratio (Vol %)		Corrosion protection for cooling circuits
Protect Extra	Water	
5	95	of ship's engines
7.5	92.5	of commercial vehicles stationary plants
10	90	as running-in fluid for engines

ADDINOL Protect Extra does not contain antifreeze inhibitors!

ADDINOL - The Experts for High-Performance Lubricants

We at ADDINOL develop and produce more than 600 high-performance lubricants of the new generation. Among these are automotive lubricants for highest demands and pioneering developments for industrial applications. Our customers all over the world benefit from the high and stable quality of our ADDINOL high-performance lubricants, our know-how and the individual customer advisory service of our competent experts. Our company has world wide activities. ADDINOL high-performance lubricants are distributed by more than 90 international partners.

The data given in this product sheet represent our current level of knowledge and experience. Due to the various specific application they do, however, not discharge the user from his own examination. The information provided herein may not be used to derive a legally binding warranty of specific properties or the suitability for a certain purpose of application. Detailed security-concerning and toxicological data as well as security instructions for each product can be taken from the corresponding Material Safety Data Sheets (MSDS). High-performance lubricants from ADDINOL are under continuous development. Therefore, ADDINOL Lube Oil GmbH keeps the right to change technical data in this product data sheet without notification. In case of doubt, please do not hesitate to contact our customers' advisory service.