



RADIATOR COOLANT PREMIXED

ORGANIC ACID TECHNOLOGY (OAT)

EXTENDED LIFE COOLANT *PRE-DILUTED, READY TO USE*

Section 1.

Product Information

| | | | |
|------------------------------|------------------------------|-------------------|-------------------------|
| PRODUCT NAME | RADIATOR COOLANT PREMIXED | PH | 7-8.5 |
| CHEMICAL CATEGORY | PRE DILUTED | FOOD GRADE | No |
| CHEMICAL TYPE | FORMULATED SOLVENT | ODOR | Slight chemical odor |
| VISCOSITY | Thin Liquid | COLOUR | YELLOW |
| FLAMMABILITY | Non Flammable | | |

Section 2.

Product Description

RADIATOR COOLANT PREMIXED Antifreeze and Coolant features Organic Acid Technology that guaranteed life time protection for as long as you own your vehicle. Its inhibitors will provide maximum protection against damaging rust and corrosion in all Automobiles, Mechanical equipment and all Trucks worldwide, regardless of make, model or original antifreeze color.

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Section 3.**Product Benefits**

RADIATOR COOLANT PREMIXED Antifreeze and Coolant provides guaranteed life time protection for as long as you own your vehicle when a complete cooling system flush and fill is performed and specified maintenance allowed. This product is formulated to be used in all heavy duty equipment, machinery, all makes of automobiles trucks and busses. This also features a ***Phosphate-free*** and ***Silicate-free*** advanced formulation.

This product protects engines and radiators for winter and summer, and can be used for Heavy and Medium Duty applications. Contains top quality additives which prevent freezing and boiling and protects against corrosion of system components. Safe on both aluminium and metal components.

Section 4.**PHYSICAL AND TECHNICAL CHARACTERISTICS**

| PROPERTY | METHOD OF TESTING | CHARACTERISTICS |
|--|------------------------------|-----------------|
| Freezing point Already pre diluted 50% deionized water Of 50% | ASTM D1177 ASTM D1177 | -37 -12.0 |
| Bellow information is done on 100% concentrate solution**** | | |
| Tests bellow are done on P-AF ready to use, 50% concentrate are done on the additives used in this product which have been done by the British manufactured supplier according to British Standards BS 6580:2010 and ASTM D 3306, P-AF 100 Ready to Use, has following properties: | | |
| Density at 20deg C | DIN 51 757-4 | 1.110-1.120 |
| Foaming Foam volume, ml Time for foam to collapse, sec | ASTM D1881 ASTM D1881 | 50max 5max |
| Ph. | ASTM D1287 | 7.7-8.5 |
| Color | | yellow |
| Boiling point, deg C | ASTM D1120 | 169.4 |
| Ash content, % (m/m) | ASTM D1119 | 0.16 |
| Water content, % (v/v) | ASTM D1123 | 4max |
| Flash point (IP 36), deg C | | 110min |
| Reserve alkalinity, ml of 0.1 mol/dm ³ of HCL | ASTM D1121 | 2.5-4.0 |
| Corrosiveness Mass loss per strip, mg Copper 10max | ASTM D1384 ASTM D1384 | -1.7* |
| Solder 30max | ASTM D1384 | 3.2 |

| | | |
|---------------------|------------|-------|
| Brass 10max | ASTM D1384 | -1.8* |
| Steel 10max | ASTM D1384 | -1.1* |
| Cast iron 10max | ASTM D1384 | -1.2* |
| Cast aluminum 30max | ASTM D1384 | 2.0 |

***Remark:** negative value means a weight gain

Chemical Nature of Concentrate

- | | |
|-------------------------------------|---------|
| 1. Mono Ethylene Glycol | 90%-94% |
| 2. Ethanediol; Ethylene glycol | 1%-3% |
| 3. Potassium 2-Eethylhexanoate | 1%-5% |
| 4. 2-ethyhexanoic acid, sodium salt | 1%-5% |
| 5. Methyl-1H-benzotriazole | 1%-5% |

(P-AF RTU is pre-diluted with 50% of deionized and treated water)

Section 5.

DIRECTION FOR USE:

Drain and flush the cooling system with clean water or radiator flush, make sure that there are no leaking hoses and that the drain valve is closed. This P-AF 100 preparation is already diluted 50/50. Fill up the radiator straight from the bottle.

NB: Boiling point is 169.5°C. Protects down to -37°C and boiling up to 110°C. Mixture 50% protects down to -12°C

Section 6.

PERFORMANCE STANDARDS:

P-AF 100 Concentrate Antifreeze, exceeds the requirements of most European and International Standards including:

| | |
|-------------------|----------------|
| ASTM D3306 | ASTM D 4985 |
| SAE J 1034 | BS 6580 (1992) |
| AFNOR NF R15-601* | FFV Heft R443 |
| CUNA NC 956-16 | UNE 26361-88 |
| JIS K 2264* | NATO S 759 |

(*with exception of reserve alkalinity)

P-AF 100 Concentrate Antifreeze also meets the performance requirements of the following **OEM** specifications:

| |
|---|
| CHRYSLER MS 9176 |
| CUMMINS 85T8-2 & 90T8-4 |
| FORD ESE M97B49-A, WSS-M97B44-D & ESD M97 B49-A |
| GM 1899 M, US 6277 M & OPEL GM QL 130100 |
| JOHN DEERE H 24 B1 & C1 |
| LEYLAND TRUCKS LTS 22 AF 10 |
| MACK 014GS 17004 |
| MAN 248, 324 (SNF) & B&W D 36 5600 |
| VAG TL 774F |
| VOLVO |
| RENAULT 41-01-001 |
| MERCEDES MB 325.3 |

*** Above performance requirements are presented as per European additive manufacturer.

Section 7.

Packaging and Product Code Information

| SIZE | DESCRIPTION |
|-------------|--------------------|
| 12 x 1L | Plastic bottle |
| 20L | Plastic container |
| 210L | Plastic drum |
| 1000L | Flowbin on pallet |

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Section 8.**Quality and Standards**

| | |
|--|-------------------------|
| SOUTH AFRICAN BUREAU OF STANDARDS CERTIFICATION | Standard does not exist |
| NRCS DISINFECTANT REGISTRATION NUMBER | N/A |
| ADDITIONAL CERTIFICATIONS OR STANDARDS | NO |
| MANUFACTURED BY ISO 9001:2008 REGISTERED FIRM | |

Section 9.**Safety and Precautions**

| | DESCRIPTION | PRECAUTION |
|----------|--------------------|--|
| 1 | Contact with skin | Recommended to use <u>gloves</u> . Rinse well after contact with skin. Prolonged contact with skin should be avoided |
| 2 | Contact with eyes | Required to wear <u>goggles</u> all industrial medium and heavy duty cleaning, however if product gets into eyes, rinse well with fresh water for more than 2 minutes, if irritation keep on occurring, refer to material safety data sheet and seek medical attention. |
| 4 | Inhalation | Do not inhale, use respiratory <u>Mask</u> when handling large quantities. |
| 5 | Product storage | It is advisable not to store in temperatures above 35 Degrees Celsius. |
| 6 | If swallowed | Do not induce vomiting. Extremely toxic to humans and animals. SEEK IMMEDIATE MEDICAL ATTENTION! |
| 7 | Other | Do not mix with other chemicals. KEEP AWAY FROM |

| | | CHILDREN |
|----------|-------------------------|---|
| 8 | Disclaimer of liability | We have drawn upon sources, which we consider reliable, for the information contained in this document. The correctness of the information is not guaranteed. The conditions or methods of use, storage, handling or disposal of this product are outside our control. For this reason, we assume no responsibility, and expressly deny any liability for loss, damages or expenses that could result from handling, storage, usage or disposal of the product. This document was prepared for this product and may only be used with it. |

AVAILABLE FROM



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