

Antifreeze additive G12++

Premium OAT Additive Package

S2053 is a water based super concentrated additive package designed to prepare a high-quality engine coolant concentrate (antifreeze) by the addition of monoethylene glycol, monopropylene glycol or water. The additive package is based on latest organic additive technology to produce finished antifreeze which is nitrite, amine, phosphate, borate and silicate free. Organic additive technology gives the product the following properties when let down into a finished product:

1. Increased life time, allowing less frequent maintenance, thanks to the corrosion inhibitors which have a very low depletion rate.
2. Thermal characteristics that permit effective engine cooling without boiling.
3. Elimination of deposit problems caused by the use of hard water.
4. Elimination of abrasives solids, which gives a better protection of the joints of the water pump.
5. Improved anticorrosion protection of all metals and alloys used in the cooling system of modern vehicles, especially the aluminium.
6. Protection against frost, depending on the concentration chosen.
7. Excellent antifoaming characteristics.
8. Meets most European and International Standards.

Typical Properties S2053

| | | |
|------------------|---------------------------|-------------|
| Appearance | Slightly opaque liquid | Visual |
| Colour | Colourless to pale yellow | Visual |
| Density at 20 °C | 1.184 g/cm ³ | ASTM D 4052 |
| Freezing Point | -3 °C | ASTM D 1177 |
| Water Content | 39% wt | ASTM D 1123 |

These are typical properties and do not constitute a specification, for specification limits please refer to the product specification.

Packages

S2053 is available in bulk, drums and IBC's.

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Blending Instructions

S2053 is a versatile super-concentrate that can be used to create numerous different finished products depending upon which dosage level or diluent is selected. These products have different advantages depending upon the priorities of the customer. For typical data properties and further information about these advantages consult the appropriate TDS. The following table outlines the formulation details (in % weight) and the products that are prepared:

| Final Product | S2053 % wt | Monoethylene Glycol | Monopropylene Glycol | Demineralised Water |
|------------------|---------------|------------------------|-------------------------|------------------------|
| C2053 | 7 | 93 | 0 | 0 |
| C2054 | 5 | 93 | 0 | 2 |
| C3053 | 7 | 0 | 93 | 0 |
| C3054 | 5 | 0 | 93 | 2 |
| Aqueous Coolant* | 5 | 0 | 0 | 95 |

* For applications where no freeze protection is required, water may be used as the diluent in place of glycol.

S2053 is readily miscible with glycol or water and should blend easily at ambient temperature. Solventis can provide guidance as to the blending method most suited to customer's own blending equipment and also to finished product testing to ensure blending has been carried out satisfactorily. The finished product produced is ultimately dependent upon the accuracy of the blending operation.

Storage and Handling

S2053 has a shelf life of at minimum two years when stored in air tight containers at a maximum temperature of 30°C. Translucent containers should not be stored outside in direct sunlight, especially in warm climates. S2053 can be stored in HDPE containers. The use of galvanized steel is not recommended for pipes or any other part of the storage/mixing installation.

As S2053 is a water based super-concentrate it should be protected from cold conditions and not allowed to freeze. However, were the product to freeze it is recommended to slowly warm the product to allow to thaw. Once thawed the super-concentrate can be used as normal with no loss of quality.

Disposal of used or unused product must be carried out in accordance with local and national law, consult the material safety data sheet for further details.

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Toxicity and Safety

As with all chemical products, awareness and control of any potential hazards is of high importance. Please consult the material safety data sheet which is available detailing the hazards associated with this product.

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