



# Gulf EMULSYN RG

## Next-generation synthetic grinding coolant

### Product Description

**Gulf Emulsyn RG** is a next-generation mineral oil-free water-miscible grinding coolant engineered to set a new industry benchmark by delivering crystal-clear emulsion appearance, unmatched bacterial resistance, and zero-oil residue performance especially for grinding operations. Unlike conventional coolants, it works seamlessly in both hard (up to 600 ppm) and soft water, maintaining consistent pH and long-term emulsion stability without the need for any tank-side biocides thus ensuring less maintenance requirements. It's advanced anti-corrosion package protects metal components from rusting, while fast chip-settling technology ensures clean machines & superior finish on components. Due to mineral oil-free nature of the product, the appearance of the emulsion is transparent providing excellent visibility of the work piece during operations and also reduces wheel loading and wheel dressing frequency thus enhancing the grinding wheel working life.

The formulation actively rejects tramp **oil**, keeping systems cleaner and reducing maintenance downtime. With low-foam, low-odor, and eco-compliant profile (free from chlorine, phenol, nitrite and secondary amines), it maximizes operators' comfort while reducing environmental impact. This unique balance of cutting-edge cooling, cleanliness, and sustainability makes it the only coolant of its kind—designed not just for today's precision grinding, but for the future of sustainable machining.

### Features & Benefits

Features	Associated Benefits
Unmatched crystal-clear emulsion appearance	Excellent visibility of work piece
Superior corrosion protection	Enhance machine tool life
Faster chip-settling & flushing action	Best operational efficiency and eliminated rejections
Highly stabilized cooling-lubrication curve	Enhanced wheel life with improvised surface finish
Excellent concentration stability	Optimized top-up consumption
Optimized microbial resistance	Prolonged coolant sump life
Free from hazardous chemicals	Environment friendly and compliance proof

Properties mentioned are typical only and minor variations, which do not affect product performance, are expected to arise in normal manufacturing processes. Please follow equipment manufacturer's recommendations for performance level and viscosity grade. The Safety Data Sheet for this product is available from your nearest Gulf Distributor. Please consult our local representative if any further information is required.

The information contained herein is believed to be correct at the time of publication and may be subject to modification from time to time. It is the user's responsibility to verify that this data sheet is current prior to using the product. No warranty expressed or implied is given concerning the accuracy of the information or the suitability of products. Gulf Oil International reserves the right to modify and change its products and specifications without prior notice.

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## Application

Applications	Concentrations
Roll Grinding	3% - 4%
Finishing Operations (Internal & External Grinding)	3% - 5%
Polishing & Coil finishing	3% - 5%

## Specifications, Approvals & Typical Properties

Typical Properties		
Test Parameters	Method	Typical Values
Emulsion appearance 5% concentration	Visual	Transparent (water white)
pH (5% emulsion in DM water)	In-House	9.75
pH (3% emulsion in DM water)	In-House	9.70
Refractometer factor	In-House	3.0
Emulsion stability 5% concentration in 600 ppm hard water	In-House	Stable
Tramp oil rejection, (Hydraulic Oil /Cream/ Emulsion)	In-House	10/0/90
CNOMO foaming test	NF T 60-185	5 hr 18 sec
Total test run duration		
Time taken for suppression of foam		
Total Alkalinity, %wt KOH	In-House	11.9
Corrosion test, Cast Iron Chip	IP 287	3%

Note - Values mentioned above are typical values and do not constitute specification

## Additional Information

### To get the optimum results

- Always add oil to the water in specified concentration. Never add water to the oil.
- Use clean container for preparation of emulsion preferably of non-galvanized materials
- Optimum pH of the emulsion should be within the range of 8.8 and 9.3
- Bacterial Count of emulsion should be controlled below 105 colony forming unit/ml.

### Metal Compatibility

Cast Iron, SG Iron	Yes	Steel	Yes
High Alloy Steel	Yes	Stainless Steel	Yes
Titanium	Yes	Aluminium	No
Brass/Copper	No	Magnesium	No

### Water quality for optimum life of cutting fluid

Water Hardness	Should range between 80 to 125 ppm of CaCO <sub>3</sub>
Sulphate Ions	50 ppm maximum
Chloride Ions	50 ppm maximum
Phosphate Ions	30 ppm maximum

### Handling & Storage guidelines

- Refer Safety Data Sheets for Health and Safety related information.
- Used product to be disposed by referring to applicable statutory guidelines
- Store preferably in in-door condition.
- Under normal storage conditions, the product should be consumed within 6 months for optimum performance

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