



# GULF METALWORKING FLUIDS

your local global brand

## GULF CASCADE GP-HS

***Ultra Long Life chlorine free Heavy Duty water-mix metalworking fluid designed for multiple applications in hard water areas***

### Description

A very high performance, ultra long-life water mix metalworking fluid, with a medium oil content, combined with excellent bio-stability. This product has been specially developed to facilitate a clean operation. GULF CASCADE GP-HS is Chlorine free and is an excellent multi-purpose rationalisation product, which is also suitable for arduous machining of all metals, including all Steels, Aluminium, Cast Iron, Brass, Inconel and other high spec alloys, Titanium Alloys and Plastics.

### Performance Benefits

- Superb bio-resistance
- Excellent Cleanliness in hard and soft water.
- Low Irritant & Operator Friendly
- Very High performance
- Multi-metal & plastics capability
- Suitable for both high and low pressure applications
- Ultra Long sump-life
- No sticky or resinous deposits, providing low drag-out
- Very economical in-use
- Excellent corrosion protection
- Good Rationalisation product
- Low Foaming and low scumming tendency, compatible with waters from 50ppm to 400ppm Calcium hardness

### Recommended Applications and Dilutions

General machining	4% to 6%
Thread cutting	5% to 7%
Milling	5% to 7%
Drilling	6% to 10%
Grinding, centreless, cylindrical, surface	3% to 5%



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### Typical Physical Properties

<b>Appearance</b>	Concentrate: Dark amber fluid Emulsion: Translucent
<b>Specific Gravity</b>	~0.99 @ 20°C
<b>Foaming Tendency</b>	Low
<b>Viscosity at 40°C</b>	~60cSt
<b>EP Performance</b>	Excellent
<b>IP125 (pass)</b>	2%
<b>Emulsion IPI 287 pass@%</b>	2%
<b>Usage Concentration</b>	3% - 8%
<b>Refractometer factor</b>	1.1
<b>Emulsion Ph @5%</b>	9.5
<b>Mineral Oil Content</b>	39%

### **Storage:**

- Store in a cool, well ventilated area
- Store inside, ideally between 10°C and 30°C
- Store away from direct heat and frost
- Shelf life 12 months from the date of manufacture
- Avoid water collecting on the barrel top

### **Product Mixing:**

Gulf advise the use of automated mixing systems. If mixing manually, always add the concentrate to the water with maximum agitation, if water is added to the concentrate, the emulsions may prove unstable. Avoid mixing with very cold concentrate or water. Check emulsion strength using a calibrated refractometer. Details of where to purchase equipment and how to use it are available from the Gulf Technical Department.

### **Product Management:**

The working concentration should be carefully controlled and monitored on a daily basis as higher and lower working concentrations have health and safety implications. Machines should be cleaned out regularly. Fluid and particulate contaminants should be kept to a minimum. This is important especially in terms of bacterial control and is in line with the latest advice from government and professional sources. Detailed reference sources are quoted in the MSDS.