



# Elitecool ES 225

## Cutting and Grinding Fluid

### General Description

ES 225 is synthetic coolant specially formulated for the medium-to-heavy duty machining of ferrous materials. It is especially good for use in steels and stainless steel grinding application. The product has excellent cooling, good lubricity, non-foaming and rejects tramp oils very well thus keeps the machine very clean. ES 225 is also suitable for use to machine glass/ceramic substrates – including drilling, grinding and lapping applications.

- Most suitable for the machining of Steels, Stainless Steel, Cast-Iron and glass/ceramic substrate
- “Operator-friendly” product – low odor, non-foaming and low mist
- Good “chips-settling” – keeping the coolant sump clear and clean
- Stable emulsion gives long coolant sump life – also very suitable for central systems
- Good rust protection on ferrous metals

### Application Guidelines

#### Recommended concentration

CNC Turning	8% to 10%
CNC Milling and Drilling	10% to 12%
Grinding	4% to 6%
Honing	8% to 12%

- Always premix the coolant before adding to machine – never pour concentrate directly into tank
- DO NOT add water to tank to reduce concentration – pre-mixed coolant at lower concentration
- DO NOT mix this product with other metalworking fluid, or fluid additives, unless these fluids are recommended by ELITE Alliance Technology
- Using auto-proportioning device/equipment is recommended; if by hand, make sure to agitate well
- When machine soft and gummy material, use higher concentration for improved finishes
- Concentration above 6% extend sump life and provide good rust protection on ferrous metals

### Material Suitability

Primary	Others
Steels (machining and grinding)	Inconel (grinding)
Stainless Steel (grinding)	Aluminum alloys
Cast-Iron	Copper alloys
Glass/Ceramic substrates	

- Before using the coolant to machine materials not listed in table above, or if you are unsure whether the coolant is the most suitable choice for your application, consult ELITE Alliance Technology or your Distributor



## PRODUCT INFORMATION

*Products for SAFETY, PERFORMANCE and CONSERVATION*

### Typical Characteristics (Physical Properties)

Form .....	Liquid	Flash Point, COC .....	> 120°C
Color .....	Light Yellow	Fire Point, COC .....	> 130°C
Odor .....	Mild	Specific Gravity .....	0.986
Refractometer Factor .....	2.60	Density (H <sub>2</sub> O=1).....	1.075
pH (at 10% dilution) .....	9.2	pH (typical operating range) .....	9.0 – 9.5

### Maintenance Recommendation

- Using pure water (de-ionized or reversed osmosis) to mix coolant improves coolant sump life, reduces concentration usage and minimizes ‘carry-off’.
- When mixing coolant with water, add the coolant concentrate to the water – not the reverse. Agitate well as coolant concentrate is added into water.
- Do not exposed premixed coolant for long period – foreign contaminants may affect its characteristics. The best is to premix the coolant when needed.
- The ‘topping-up’ concentration should balance water evaporation rate with the coolant ‘carry-out’ rate. Generally, adding ‘top-up’ coolant at between 30% - 40% of the desired working concentration will maintain the proper concentration of the coolant sump.
- Refer to the most recent Product MSDS document for guideline on waste coolant disposal.

### Health and Safety

Refer to the most recent Product MSDS. Consult ELITE Alliance Technology or your distributor if inadvertent contamination should occur.

### Shipping Units

ELITE Alliance Technology’s products are available in pail (20L), drum (200L) and plastic tote (1000L). All products are packed with care and are safe for trans-shipment and export worldwide.

For more information, please contact: **ELITE Alliance Technology (ASIA) Pte., Ltd.**  
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