

### PRODUCT IDENTIFICATION



**Product Name:** Full Synthetic SAE 85W-140 Heavy Duty Gear Lubricant

**CAS Number:** 123456-78-9

**Molecular Formula:** Not Available

**Molecular Weight:** 870.50 g/mol

**Grade:** Technical

**Purity / Concentration:** Not Available

**Synonyms:** Synthetic Gear Oil 85W-140, SAE 85W-140 Synthetic Lubricant

### PRODUCT OVERVIEW

Alliance Chemical's Full Synthetic SAE 85W-140 Heavy Duty Gear Lubricant is a high-performance technical grade fluid designed for extreme pressure environments. With a robust viscosity of 24.5 cSt at 100°C and a high Timken OK load of 65 lbs, this lubricant ensures superior wear protection for critical gear assemblies.

**Grade Significance:** Technical grade indicates that this product is formulated specifically for industrial and mechanical utility, ensuring consistent performance for heavy-duty applications.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Viscosity 100C Cst	cSt	24.5	23.5	—	ASTM D445
Viscosity 40C Cst	cSt	310.5	280.0	330.0	ASTM D445
Viscosity Index	None	98	95	—	ASTM D2270
Water Content	%	0.01	—	0.05	ASTM D6304
Calcium Ppm	ppm	2500.0	—	—	ASTM D5185
Copper Strip Corrosion	None	1a	—	1b	ASTM D130
Zinc Ppm	ppm	1200.0	—	—	ASTM D5185
Flash Point Coc C	°C	235.0	220.0	—	ASTM D92
Foam Test Seq I Stability MI	mL	ND	—	0	ASTM D892
Foam Test Seq I Tendency MI	mL	ND	—	50	ASTM D892
Four Ball Wear Scar Mm	mm	0.45	—	0.6	ASTM D4172
Phosphorus Ppm	ppm	1800.0	—	—	ASTM D5185
Pour Point C	°C	-24	—	-18	ASTM D97
Sulfur Pct	%	0.45	—	—	ASTM D5185
Timken Ok Load Lbs	lbs	65	60	—	ASTM D2782

ND = Not Detected. Values are typical and may vary by lot.

## PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Clear to amber liquid	<b>Odor</b>	Mild petroleum odor
<b>Flash Point</b>	200°C (392°F)	<b>Solubility</b>	Insoluble in water, soluble in organic solvents
<b>Molecular Weight</b>	870.50 g/mol	<b>Vapor Pressure (20°C)</b>	0.1 mmHg
<b>Viscosity (25°C)</b>	15 cP	<b>Refractive Index (20°C)</b>	1.460
<b>Density (25°C)</b>	0.885 g/mL		

## APPLICATIONS

- 1. Automotive** — Provides essential lubrication for heavy-duty differentials and manual transmissions to reduce friction and heat.
- 2. Industrial Manufacturing** — Ideal for stationary gear systems that operate under constant high loads and elevated temperatures.
- 3. Marine** — Suitable for marine gearboxes and stern drives where water resistance and corrosion protection are vital.
- 4. Construction** — Ensures reliable performance for heavy machinery operating in harsh, demanding environmental conditions.

## STORAGE & HANDLING

Proper storage in a cool, dry, and well-ventilated area is essential to maintain the lubricant's chemical integrity and prevent oxidation. While the flash point of 200°C suggests a stable profile, keeping containers tightly sealed prevents contamination and mitigates potential fire hazards.

- Store in a cool, dry place away from direct sunlight.
- Use appropriate personal protective equipment (PPE) when handling.
- Avoid contact with strong oxidizing agents.
- Keep containers tightly closed when not in use.
- Compatible with HDPE and stainless steel containers.

## AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 55 Gallon

## SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

### Signal Word: Not Classified

No GHS pictograms assigned.

### Hazard Statements:

- Not Classified: This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Emergency Contact:** CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

*For complete safety information, refer to the Safety Data Sheet (SDS) for this product.*

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