

PRODUCT IDENTIFICATION



Product Name: Full Synthetic SAE 75W-90 Heavy Duty Gear Lubricant

CAS Number: 123-45-6

Molecular Formula: Not Available

Molecular Weight: 850.00 g/mol

Grade: Technical

Purity / Concentration: Not Available

Synonyms: Synthetic Gear Oil 75W-90, 75W-90 Synthetic Lubricant

PRODUCT OVERVIEW

Alliance Chemical's Full Synthetic SAE 75W-90 Heavy Duty Gear Lubricant is a high-performance, technical-grade oil engineered for extreme thermal stability and protection. With a high viscosity index of 152.0 and a low pour point of -42°C, this lubricant ensures consistent performance across demanding operating conditions in transmissions and differentials.

Grade Significance: Technical grade indicates that this product is formulated for optimal industrial performance and mechanical efficiency, prioritizing functional efficacy over cosmetic purity.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Viscosity 100C Cst	cSt	14.5	13.5	15.5	ASTM D445
Viscosity 40C Cst	cSt	95.5	90	100.0	ASTM D445
Viscosity Index	cP	152.0	140.0	—	ASTM D2270
Water Content	%	0.01	—	0.05	ASTM D6304
Copper Strip Corrosion	—	1a	—	1b	ASTM D130
Flash Point Coc C	°C	225.0	210.0	—	ASTM D92
Foam Test Seq I Stability MI	mL	ND	—	0	ASTM D892
Foam Test Seq I Tendency MI	mL	ND	—	10	ASTM D892
Foam Test Seq Ii Stability MI	mL	ND	—	0	ASTM D892
Foam Test Seq Ii Tendency MI	mL	ND	—	20	ASTM D892
Foam Test Seq Iii Stability MI	mL	ND	—	0	ASTM D892
Foam Test Seq Iii Tendency MI	mL	ND	—	10	ASTM D892
Phosphorus Wt Pct	%	0.1	—	0.12	ASTM D5185
Pour Point C	°C	-42	—	-36	ASTM D97
Rust Test Procedure A	—	Pass	Pass	—	ASTM D665
Sulfur Wt Pct	%	0.45	—	0.5	ASTM D5185

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear to amber liquid	Odor	Mild petroleum odor
Flash Point	200°C (392°F)	Solubility	Insoluble in water, soluble in organic solvents
Molecular Weight	850.00 g/mol	Vapor Pressure (20°C)	0.1 mmHg
Density (25°C)	0.87 g/mL		

APPLICATIONS

- 1. Automotive** — Designed for use in heavy-duty manual transmissions and differentials to reduce friction and prevent premature gear wear.
- 2. Heavy Machinery** — Provides essential lubrication for industrial gearboxes operating under constant, high-load conditions where standard oils fail.
- 3. Marine** — Offers superior water resistance and anti-corrosion properties, making it ideal for marine drivetrain components exposed to moisture.
- 4. Manufacturing** — Used in complex bearing systems that require high-viscosity synthetic lubrication to maintain operational efficiency.

STORAGE & HANDLING

Proper storage is essential to maintain the chemical integrity and anti-foaming properties of this synthetic lubricant. Keep containers tightly sealed in a cool, dry area away from direct heat sources to prevent oxidation and ensure the flash point remains stable for safe handling.

- Store in a cool, dry place away from direct sunlight.
- Use containers made of HDPE or stainless steel to prevent contamination.
- Avoid mixing with other lubricants unless compatibility is confirmed.
- Ensure proper ventilation when handling to avoid inhalation of vapors.
- Wear appropriate personal protective equipment (PPE) such as gloves and goggles.

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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