Technical Data Sheet

Full Synthetic SAE 85W-140 Heavy Duty Gear Lubricant

Alliance Code	Revised	Revision
85w-140	2026-10-13	1.3

CAS number	
64742-54-7	

IDENTITY & COMPOSITION

PRODUCT NAME
Full Synthetic SAE 85W-140 Heavy Duty Gear Lubricant

ALLIANCE CODE
85w-140

GRADE
—

CONCENTRATION
—

CAS NUMBER
64742-54-7 Adjudicated

PRODUCT TYPE
—

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Flash point, Cleveland open cup	200 C min	—	ASTM D92	Interpreted
Pour point	-25 C max	—	ASTM D97	Interpreted
Copper strip corrosion, 3 h at 121 C	2a max	—	ASTM D130	Interpreted

Values are reproduced from the current product reference. Source labels do not by themselves establish a supplier guarantee or a test result for your lot. Confirm applicable acceptance limits and request lot-specific documentation.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	Clear amber viscous liquid	Published reference
Form	Liquid	Published reference
Odor	Mild petroleum	Published reference
pH	Not applicable	Published reference
Specific Gravity	~0.89	Published reference
Density	0.875 - 0.900 g/ml	Interpreted
Boiling Point	>260 °C	Published reference
Melting Point	-16 to -12 °C (3 to 10 °F)	Adjudicated
Flash Point	170 to 180 °C (338 to 356 °F)	Adjudicated
Vapor Pressure	Negligible	Published reference
Solubility (water)	Insoluble in water	Published reference
Viscosity	24.0 - 32.5 cSt	Interpreted

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

Not regulated Adjudicated

HAZARD CLASS

Not regulated Adjudicated

PACKING GROUP

Not regulated Adjudicated

PROPER SHIPPING NAME

Not regulated Adjudicated

GHS / OSHA HCS 2024

SIGNAL WORD

Not regulated Adjudicated

H-CODES (HAZARD STATEMENTS)

— no canonical

P-CODES (PRECAUTIONARY STATEMENTS)

P264, P280 Adjudicated

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

5 mg/m^3 TWA OSHA 29 CFR 1910.1000

ACGIH TLV

— no canonical

NIOSH REL

5 mg/m^3 TWA / 10 mg/m^3 STEL NIOSH Pocket Guide

NIOSH IDLH

2500 mg/m^3 NIOSH Pocket Guide

Transport descriptions reflect 49 CFR 172.101 lookup at time of publication. Sourced data: NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

APPLICATIONS

Heaviest gear grade in the range, used in high-shock final drives and overloaded axles operating in hot conditions.

awtoil.com

Fits final drives and heavily loaded hypoid axles. awtoil.com

SAE 85W-140 is an SAE J306 viscosity designation for automotive driveline and gear lubricants. muxxlube.de

Applications are drawn from published manufacturer and supplier documentation; each is sourced. Suitability for a specific use is the buyer's to confirm.

STORAGE & HANDLING

RECOMMENDED STORAGE

Store in the original labeled container, tightly closed, in a cool, dry, well-ventilated place out of direct sunlight and away from heat, ignition sources, incompatible materials and food or drink. Static accumulator: bond and ground when transferring.

Adjudicated

HANDLING PRECAUTIONS

Use standard chemical PPE — splash goggles, gloves, lab coat. Refer to SDS for hazard-specific PPE requirements.

Class-level guidance — not product-specific; the SDS controls.

INCOMPATIBILITIES

Strong oxidizing agents. Adjudicated

SHELF LIFE

Consult Technical Services for product-specific shelf life

For full hazard, PPE, and emergency response guidance, refer to the Safety Data Sheet (SDS) for this product. The SDS controls in all cases where guidance differs.

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

```
Not regulated for transport.
```

Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS

55

REVISION HISTORY

Last reviewed 2026-10-13 by Andre Taki, Chief Commercial Officer, DOT Hazmat–certified (49 CFR 172.704).

VERSION	DATE	CHANGE	TRIGGER
1.3	2026-10-13	Canonical data updated: 4 fields changed via the provenance/adjudication pipeline. • `storage_precautions` · canonical change (coa.data_provenance / adjudication) • `incompatible_materials` · canonical change (coa.data_provenance / adjudication) • `conditions_to_avoid` · canonical change (coa.data_provenance / adjudication) • `hazardous_decomposition_products` · canonical change (coa.data_provenance / adjudication)	`canonical_change`

VERSION	DATE	CHANGE	TRIGGER
1.2	2026-10-05	Canonical data updated: 3 fields changed via the provenance/adjudication pipeline. • `oel_niosh_rel` · canonical change (coa.data_provenance / adjudication) • `oel_idlh` · canonical change (coa.data_provenance / adjudication) • `oel_osha_pel` · canonical change (coa.data_provenance / adjudication)	`canonical_change`
1.1	2026-09-30	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. • `meltingPoint` · canonical change (coa.data_provenance / adjudication) • `flashPoint` · canonical change (coa.data_provenance / adjudication)	`canonical_change`

This Technical Data Sheet is provided for technical reference. The Safety Data Sheet (SDS) controls in all cases where guidance differs. Values reflect Alliance Chemical canonical data at time of generation; subsequent revisions are recorded in the Revision History above.