

Product data

SAF-XA - Synthetic Axle Fluid

Product Description

Castrol SAF-XA is a fully synthetic rear axle fluid incorporating Castrol's most advanced transmission fluid technology. It is designed to provide protection at the utmost extremes of very low and high operating temperatures where mineral gear oils prove unsatisfactory. It is Castrol's prime recommendation for competition, severe duty and long drain applications.

Product Application

Castrol SAF-XA is recommended for rear axles of passenger cars and commercial vehicles.

- ◆ Holden V8 rear axles.
- ◆ Trucks including "road-trains" operating in severe service where high oil temperatures in the differentials and power dividers are encountered.
- ◆ Competition vehicle rear axles, Group A, sport sedans, Formula Holden, Rally cars. **Castrol SAF-XA** was the transmission-rear axle fluid used by Sauber-Mercedes who won the 1989 Le Mans 24 Hour Endurance Sports Car Race and the 1989 and 1990 World Sports Car Championships.
- ◆ Both limited slip and non-limited slip rear axles.
- ◆ For vehicles towing caravans and heavy trailers.
- ◆ In certain manual transmissions, where GL5 80W/90, 90 or 85W/140 are recommended.
- ◆ Covers full rear axle viscosity range from SAE 75W through to SAE 140.
- ◆ "Legs" of outboard and stern-drives used in competition (e.g. Formula One and ski racing).
- ◆ Eaton, Rockwell or Dana axles where synthetic oils are specified for long drain.

Product Features & Benefits

Feature	Benefit
Excellent high temperature, high load performance.	Maximum protection against wear and noise even at continuous high temperatures, loads and speeds.
Low friction.	Improved axle efficiency offering potential fuel economy improvements.
Shear stable.	Extremely shear stable ensuring that its excellent properties are retained over very long service periods.
Reduced operating temperatures.	Under high loads and severe conditions it can reduce axle temperatures which increase life of gears and seals.
Limited slip performance.	Suitable for use in limited slip rear axles.
Very wide viscosity range.	Suitable for use from very low to very high temperatures - rapid flow from cold, excellent protection when hot.
Compatible with normal mineral gear oils and seals.	May be used in place of mineral gear oils without the need for seal changes or extensive flushing procedures.
Race proven - Le Mans performance.	LE Mans and World Sport Car Championship performance as used by Sauber Mercedes.

Typical Characteristics

SAE Viscosity Grade	KV @ 100 °C (cSt)	KV @ 40 °C (cSt)	Pour Point (°C)	Flash Point (°C)	API GL Rating
75W/140	25	186	-54	220	5 (6 OBS)

Performance Levels

Castrol SAF-XA rear axle fluid may be recommended where the following current and superseded specifications performance levels are cited:

American Petroleum Institute (API) Service Classification

- ◆ GL: 4*, 5 & 6 (now obsolete)
- ◆ SAE: 75W/90, 80W, 80W/90, 90, 85W/140 and 140
- ◆ US Military: MIL-L-2104B, C, D & E
- ◆ BTR (ENG): 5M-31, 5M-48
- ◆ Ford: ESW-M2C-119A, EDW-M2C-104
- ◆ GMH: HN 1561, 2040
- ◆ Nissan: 4WD Differentials

*CAUTION: Using **Castrol SAF-XA** in manual transmissions where GL4 is recommended, may result in loss of synchroniser performance. If this occurs contact Castrol for alternative recommendation.

For transmission applications specifying GL4 Castrol Syntrans 75W85 or Syntrans M are recommended and would be more suitable.

Change Over Procedure

Drain and change over from mineral gear oils to **Castrol SAF-XA**.

As **Castrol SAF-XA** is compatible with normal mineral gear oils, extensive flushing is not usually required. For the optimum performance of **Castrol SAF-XA**, the following advice is offered. Where a differential, power divider or transmission has been subjected to high operating temperatures, the system should be flushed with clean gear oil, either mineral (Castrol GO-H or LSX 85W-140 preferred) or preferably **Castrol SAF-XA**.

The flushing is best done by draining the old oil while still warm, then refilling with fresh clean gear oil and the unit worked for at least 1-2 hours. The drain and refill with **Castrol SAF-XA** making sure differential, power driver or transmission is refilled to the correct level.

NOTE: Although **Castrol SAF-XA** may be topped up with mineral oil (Castrol GO-H or LSX 85W/140 preferred), some of the performance advantages and protection of **Castrol SAF-XA** will be lost.

Heavy Duty Extended Drain Applications

Determining Service Durability

1. Recommended service interval: 2 years or 300,000 km max.
2. For long haul applications (interstate on-highway) higher distances are possible, use Castrol Labcheck wear metal and oil analysis to determine suitable change period.
3. For short haul and around town applications, longer time periods are possible if indicated by Castrol Labcheck oil analysis.
4. **Castrol SAF-XA** is NOT compatible with Glycol based gear oils. Compatibility with other synthetic oils would need to be determined on a case by case basis, consult your local Castrol office for advice.
5. For all long drain applications, Labcheck or oil wear metal condition monitoring is required to ensure optimum performance and durability.

Health, Safety & Environment

Castrol SAF-XA is considered non-hazardous according to Worksafe. However, in line with safe handling practices, it is recommended that the handling instructions outlined in the Castrol Material Safety Data Sheet be followed.

Spillage

- Small:** Soak up using an inert mineral adsorbent such as Castrol Diatomaceous Earth and dispose of in the appropriate manner.
- Large:** Corrective action usually dictated by individual company safety procedures. Immediate containment and subsequent removal is essential.
- Disposal:** Oily materials must not be allowed to enter groundwater, watercourses, sewerage or drainage systems. Refer to local Waste Disposal Authority for legal requirements.

Product Removal

- Bare Metal Surfaces:** Remove with Castrol solvent cleaners or water based degreasers.
- Hand Cleaning:** Use any of the Castrol range of hand cleaners, e.g. CareClean Plus.
- Other Surfaces:** Contact your local Special Products Division in each State Office.

Although all reasonable care has been taken to ensure that the information contained in this publication is accurate as at the time of printing, such information is nevertheless liable to variation in the event of changes occurring subsequent to the date of printing it: the blend formulation, methods of storage, or due to the improper handling or application of any of the products referred to, or in the requirements of any specification or approval relating to any of the products.

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