

## 6. Recommended Fuel, Lubricants, Sealants and Adhesives

### 1. FUEL

The SUBARU engine is designed to use only unleaded gasoline with an octane rating of 91 AKI or higher. [This octane rating is the average of the Research Octane and Motor Octane numbers and is commonly referred to as the Anti-Knock Index (AKI).] Use of fuels containing proper detergents is recommended for good performance and emission control. The neck of the fuel filler pipe is designed to accept only an unleaded gasoline filler nozzle. Under no circumstances should leaded gasoline be used since it will damage the emission control system and may impair driveability and fuel economy.

### 2. FUELS CONTAINING ALCOHOL

Some gasoline blends sold at service stations contain alcohol or other oxygenates even though that fact may not be fully disclosed. If you are not sure whether there is alcohol present in the fuel, ask your service station operator. Do not use such fuels unless the gasoline/alcohol blend is suitable for your vehicle as explained below:

- The fuel should be unleaded and have an octane rating no lower than that recommended above.
- Never use fuel containing more than 10% ethanol (ethyl or grain alcohol).
- Methanol (methyl or wood alcohol) is sometimes mixed with unleaded gasoline. Methanol can be used in your vehicle **ONLY** if it does not exceed 5% of the fuel mixture **AND** it is accompanied by sufficient quantities of the proper cosolvents and corrosion inhibitors required to prevent fuel system damage. Otherwise, fuel containing methanol should not be used.
- Unleaded fuel blends which contain no more than 15% MTBE (methyl tertiary butyl ether) or other oxygenates and which are approved by the Environmental Protection Agency may be used.
- You should avoid using fuels mixed with alcohol or other oxygenates on an exclusive basis. If driving problems such as engine stalling or hard starting result when such fuels are used, immediately discontinue their use and switch back to unleaded gasoline that does not contain alcohol or other oxygenates.

**Take care not to spill fuel during refueling. Fuels containing alcohol may cause paint damage.**

Lubricants	Specifications	Remarks
• Engine oil	• API Classification: SF or SG	• For SAE viscosity number, refer to the following table.
• Front differential gear oil • AWD rear differential gear oil	• API Classification: GL-5	• For SAE viscosity number, refer to the following table.
• Automatic transmission and power steering fluid	• DEXRON II	—
• Coolant	• Genuine SUBARU Coolant (Part No. 000016218) (Anti-freeze, anti-corrosive ethylene glycol base)	• For further coolant specifications, refer to the following table.
• Brake fluid	• DOT3 or DOT4	• FMVSS NO. 116 • Avoid mixing brake fluid of different brands to prevent the fluid performance from degrading. • When brake fluid is added, be careful not to allow any dust into the reservoir.

Lubricants	Recommended	Application	Equivalent
• Spray lubricants	SUBARU CRC (P/N 004301003)	O <sub>2</sub> sensor	—
• Grease	SUNLIGHT 2 (P/N 003602010)	Steering shaft bearing	—
	Valiant grease M-2 (P/N 003608001)	Steering gearbox	—
	Niglube RX-2 (P/N 003606000)	Piston boot of rear disc brake and sliding pin	—
	(P/N 725191040)	Piston boot of front disc brake and sliding pin	—
	(P/N 003602000)	Contacting surfaces of drum brake shoes and shoe clearance adjuster	—
	(P/N 623029980)	BJ and DOJ joints of axle shafts (for AT)	—
	Slicolube G-30M (P/N 004404002)	Control cables and carburetor linkages subject to cold weather, water-pump impeller, door latch, striker, battery terminals etc.	—

ITEM	API Classification	SAE viscosity No. and Applicable Temperature					
		(°F)	-30	0	30	60	90
● Engine oil	SF or SG	(°C)	-34	-18	0	16	32
		10W-30, 10W-40					
		5W-30					
● Front differential gear oil ● AWD rear differential gear oil	GL-5	90					
		85W					
		80W					
		75W-90, *80W-90					

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Fig. 13

- a. Each oil manufacturer has its base oil and additives. Thus, do not mix two or more brands (Except engine oil).
- b. When replenishing oil, it does not matter if the oil to be added is a different brand from that in the engine, however, use oil having the API classification and SAE viscosity No. designated by SUBARU.
- c. SAE 5W-30 is not recommended for sustained high speed driving.
- d. If vehicle is used in desert areas or areas with very high temperatures or for other heavy duty applications, the following viscosity oils may be used:  
30, 40, 10W-50, 20W-40, 20W-50
- e. \* For differential gear oil (AT)

Coolant Specifications							
Lowest anticipated atmospheric temperature	SUBARU coolant-to-*water ratio (Volume) %	Specification gravity					Freezing point
		at 10°C (50°F)	at 20°C (68°F)	at 30°C (86°F)	at 40°C (104°F)	at 50°C (122°F)	
Above —30°C (—22°F)	50 — 50	1.084	1.079	1.074	1.068	1.062	—36°C (—33°F)
Above —15°C (—5°F)	30 — 70	1.053	1.049	1.044	1.039	1.034	—36°C (—33°F)

\* It is commended that distilled water be used.

- a. Avoid using any coolant or only water other than this designated type to prevent corrosion.
- b. SUBARU's engine is aluminum alloy, and so special care is necessary.

### 3. SEALANTS

	Recommended	Application	Equivalent
Sealant	Three Bond 1105 (P/N 004403010)	Rear differential oil drain plug, oil pressure switch, etc.	Dow Corning's No. 7038
	Three Bond 1215 (P/N 004403007)	Matching surface of oil pump, crank case, transmission case, etc. Engine service hole plug, coolant drain plug, etc.	Dow Corning's No. 7038
	Starcalking B-33A (P/N 000018901)	Sealing against water and dust entry through weatherstrips, grommets, etc.	Butyl Rubber Sealant
	Three Bond 1207C (P/N 004403012)	Matching surface of oil pan	—

### 4. ADHESIVES

Adhesive	Cemedine 5430L	Weatherstrips and other rubber parts, plastic and textiles except soft vinyl parts.	3M's EC-1770 EC-1368
	Cemedine 540	Soft vinyl parts, and other parts subject to gasoline, grease or oil. e.g. trim leather, gear shift boot, door inner remote cover, etc.	3M's EC-776 EC-847 EC-1022 (Spray Type)
	Cemedine 3000	Bonding metals, glass, plastic and rubber parts. Repairing slightly torn weatherstrips, etc.	Armstrong's Eastman 910
	Essex Chemical Corp's Urethane E	Windshield to body panel.	Sunstar 580