

FOOD MACHINE GEAR

Gear Oil for Food Machinery

FOOD MACHINE GEAR is a synthetic gear oil for food machines formulated with approved raw materials by US FDA (Food and Drug Administration), which meets US NSF (National Sanitation Foundation) H1. Interest in "food safety" increases in the world, and a food manufacturing process is watched strictly. **FOOD MACHINE GEAR** can minimize a risk in the process of manufacture in response to expectation for "security" and "the quality" of the food industry.

FOOD MACHINE GEAR is formulated with synthetic base oil and optimal additives, and indicates high viscosity index and outstanding thermal and oxidation stability compared with general gear oil of mineral oil, which can be used for gear device of food machines in a wide temperature range.

● SPECIAL FEATURES

1. US NSF H1 Registration Product

FOOD MACHINE GEAR is a gear oil formulated with only raw materials which FDA approves, and US NSF H1 registration product.

Therefore, it can reduce a risk in the public sanitation for a food manufacturer and a processor, if it is used for the point that may get mixed with food accidentally.

2. Adaptation to HACCP

On the occasion of the problems in the food hygiene that may occur at all stages such as raw materials, processing, packing and shipment in the food industry, **FOOD MACHINE GEAR** adapts to the management method to prevent or decrease the outbreak of problems.

* HACCP: Hazard Analysis Critical Control Point

(International standard of the hygiene system of administration of the food)

3. Long Life Performance

FOOD MACHINE GEAR is formulated with synthetic base oil and optimal additives can be used for the gear devices which need long life performance from low to high temperatures. It contributes to the cost saving and the maintenance-free operation, because it can maintain stable performance for a long term in comparison with gear oil of mineral oil.

4. Excellent Low Temperature and Viscosity Properties

FOOD MACHINE GEAR can make the start-up of facilities device smooth at low temperature due to its superior low temperature fluidity. In the usage at the food factory in cold district or a device repeating driving and a stop frequently, it is effective and can be expected an electric power saving due to a short warming-up time.

● GRADES

FOOD MACHINE GEAR is available in two viscosity grades, so you can choose the grade that is suitable for your operating conditions.

● APPLICATIONS

FOOD MACHINE GEAR can be used for sealed gears in a wide range of food industry, including production equipment, grinder mill, powder machine, etc.

● CONTAINERS

200-liter drums, 20-liter cans
and 4-liter cans(VG150, VG220)

● TYPICAL PROPERTIES OF FOOD MACHINE GEAR

ISO Viscosity Grade			150	220	320	460
Color	(ASTM)		L0.5	L0.5	L0.5	L0.5
Density	(15°C)	g/cm ³	0.844	0.848	0.849	0.853
Kinematic Viscosity	(40°C)	mm ² /s	150	217	322	451
	(100°C)	mm ² /s	18.9	27.3	39.3	51.8
Viscosity Index			143	162	174	179
Flash Point	(COC)	°C	272	272	278	282
Acid Number		mgKOH/g	0.27	0.27	0.27	0.27
Pour Point		°C	-42.5	-42.5	-42.5	-42.5
Copper Corrosion	(100°C, 3h)		1	1	1	1
Rust Prevention	(distilled water, 60°C, 24 h)		No rust	No rust	No rust	No rust

Note: The typical properties may be changed without notice. (August 2015)



**Handling
Precautions**

▼ Follow these precautions when handling this product.

Composition :	Base Oil, Additives
Precautionary pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Not applicable
Precautionary Statements:	<ul style="list-style-type: none"> • Do not handle until all safety precautions have been read and understood. • Wear protective gloves/protective clothing/eye protection/face protection. • Do not allow the eyes to become exposed to the product. Do not swallow the product. • Wash hands thoroughly after handling. • Do not eat, drink or smoke when using this product.
Response	<ul style="list-style-type: none"> • IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. • IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. • If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician. • IF ON SKIN: Wash with plenty of soap and water.
Storage	<ul style="list-style-type: none"> • The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight. • Containers that have been opened must be tightly sealed.
Disposal	<ul style="list-style-type: none"> • Dispose of contents/container in accordance with local/regional/national/international regulations. • If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.