

IND-3009-2405E

FOOD MACHINE GEAR

Gear Oil for Food Machinery

FOOD MACHINE GEAR is a synthetic, long-life gear oil for food machinery, formulated with raw materials approved by U.S. FDA (Food and Drug Administration) and compliant with U.S. NSF (National Sanitation Foundation) H1 standards. As interest in "food safety" increases worldwide, the food manufacturing processes is being watched more strictly. **FOOD MACHINE GEAR** can minimize risks in the manufacturing process, meeting the food industry's expectations for "safety" and "quality". Formulated with synthetic base oil and optimal additives, **FOOD MACHINE GEAR** offers a high viscosity index and can be used across a wide temperature range. It also demonstrates superior thermal and oxidation stability compared to general mineral oil-based gear oils.

● SPECIAL FEATURES

1. U.S. NSF H1 Registered Product

FOOD MACHINE GEAR is a gear oil formulated with only raw materials approved by the FDA, and it is a U.S. NSF H1 registered product. Therefore, it helps reduce risks in the public sanitation for food manufacturers and processors.

2. Compliance with HACCP

FOOD MACHINE GEAR complies with the management methods designed to prevent or reduce food hygiene issues that may arise at all stages, from raw materials to processing, packaging and shipment in the food industry.

HACCP: Hazard Analysis Critical Control Point (International standard for food hygiene management systems)

3. Long Life Performance

FOOD MACHINE GEAR is formulated with synthetic base oil and optimal additives, providing superior thermal and oxidation stability compared to conventional mineral oil-based gear oils. This ensures long-term stable performance, contributing to cost savings and maintenance-free operation.

4. Excellent Low Temperature and Viscosity Properties

FOOD MACHINE GEAR ensures smooth start-up of equipment at low temperatures due to its superior low-temperature fluidity. In food

factories located in cold regions or when using equipment that frequently starts and stops, it is efficient and can be expected to save energy due to the short warming-up time.

● IMPORTANT NOTICE

NSF H1 is a category of lubricants approved for use in areas where there is a possibility of incidental contact with food. In other words, these lubricants are not intended to come into direct contact with food. The permissible contamination level in food is regulated to be "not exceeding 10 ppm." Therefore, please prioritize measures to prevent contamination of food.

● GRADES

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

● APPLICATIONS

FOOD MACHINE GEAR is suitable for use in enclosed gears of food-related manufacturing equipment, such as production machinery and grinding equipment.

● CONTAINERS

200-liter drum, 20-liter can
and 4-liter can (VG150 and VG220 only)

● 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
Kinematic viscosity	(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 strip 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(s), Additives
Hazard pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Harmful to aquatic life Harmful to aquatic life with long lasting effects
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. • Avoid release to the environment. • Wash hands thoroughly after handling. • Do not eat, drink or smoke when using this product.
Prevention	
Response	<ul style="list-style-type: none"> • IF SWALLOWED: Immediately call a POISON CENTER/doctor. • 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.