

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier	ZENOAH GENUINE 2 CYCLE ENGINE OIL FD
Other means of identification	
Product code	00420
Recommended use of the chemical and restrictions on use	
Recommended use	2-Stroke gasoline engine oil
Recommended restrictions	This material should not be used for any other purpose than that recommended.
Supplier's detail	
Manufacturer	Husqvarna Zenoah Co., Ltd.
Address	1-9, Minamidai, Kawagoe City, Saitama 350-1165, Japan
Postal code	350-1165
Phone number	+81-49-243-6392
Emergency phone number	
Phone number	+81-49-243-6392 (Technical Center)
Contact Available time	Monday - Friday 9:00-17:00 (Japan Standard Time (JST))

SECTION 2. HAZARD IDENTIFICATION

GHS classification

Physical Hazards	FLAMMABLE LIQUIDS	Category 4
Health Hazards	SKIN CORROSION/IRRITATION	Category 2
	CARCINOGENICITY	Category 2
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)	Category 3 (Respiratory tract irritation, Narcotic effects)
Environmental Hazards	HAZARDOUS TO THE AQUATIC ENVIRONMENT	
	SHORT-TERM(ACUTE)HAZARD	Category 3
	LONG-TERM(CHRONIC)HAZARD	Category 3
	* Hazards not listed are "Not classified," "classification not possible,".	

GHS label elements

Hazard pictograms



Signal word Warning

Hazard statement

H227 Combustible liquid.
H315 Causes skin irritation
H351 Suspected of causing cancer
H335+H336 May cause respiratory irritation, may cause drowsiness or dizziness
H412 Harmful to aquatic life with long lasting effects

Precautionary statements

【Prevention】

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

【Response】

P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P312 (IF INHALED:)Call a POISON CENTER/doctor if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use to appropriate extinguishing media (see "5. Fire Fighting Measures") to extinguish.

【Storage】

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

【Disposal】

P501 Dispose of contents/container to accordance with local/regional/national/international regulation.

Other hazards

No data available

※Even if the above precautions are not listed in the GHS classification, sufficient consideration should be given to safety measures/first aid measures/storage/disposal with reference to the following information.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Components	Amount(%)
Lubricating base oil	70 - 80
Lubricating oil additive compound liquid	20 - 30

(If mineral oil is included, it is a highly refined base oil with less than 3% DMSO extractables by IP346 method)
CAS : Not described owing to enterprise secret.

This product contains substances subject to the following laws and regulations

COMPONENTS	Amount(%)	Laws and Regulations
Mineral oil	45-55	1-1, 1-2
Kerosine	20-30	1-1, 1-2

1-1 : Japan Industrial Safety and Health Act (Article 57: Labeling)
1-2 : Japan Industrial Safety and Health Act (Article 57-2: Delivery of Documents)
1-3 : Japan Industrial Safety and Health Act (Organic Solvents)
2 : Japan Poisonous and Deleterious Substances Control Act
3 : Japan: PRTR-SDS Law (Classification I)

SECTION 4. FIRST-AID MEASURES

Description of necessary first aid measures

Inhalation	1 Move the patient to fresh air. Cover the body with a blanket to keep it warm and at rest, and seek medical attention if necessary. 2 Call a POISON CENTER/doctor if you feel unwell.
Skin contact	1 Wash affected areas with water and soap. 2 If skin irritation occurs, get medical advice/attention.
Eyes contact	• After rinsing the eyes with clean water for at least 15 minutes, seek medical attention.
Ingestion	1 Do not force vomiting, seek medical attention immediately. 2 If the mouth is contaminated, rinse thoroughly with water.

Most important symptoms/ effects, acute and delayed.

- 1 If swallowed, may cause diarrhea and vomiting.
- 2 May cause irritation if it gets into the eye.
- 3 Contact with skin may cause irritation.
- 4 Inhalation of the mist may make you feel sick.

Indication of immediate medical attention and special treatment needed. If necessary.

Treatment	• No useful information at this time.
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SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	1 Atomized reinforced liquid, foam, powder or carbon dioxide extinguishing agents are effective. 2 Use powder fire extinguishers and carbon dioxide extinguishers for initial fires. 3 For large fires, using foam extinguishers to cut off the air is effective.
unsuitable extinguishing media	• Do not use straight stream of water. May spread fire and be dangerous.

Specific hazards arising from the chemical

Specific fire hazards • Gases such as carbon monoxide, sulfur oxides, and metal oxides may be generated during combustion.

- Specific fire extinguishing methods
- 1 Cut off the source of combustion to the fire.
 - 2 Sprinkle water on surrounding equipment, etc. for cooling.
 - 3 Prohibit all unauthorized persons from entering the area around the fire location.

Specific protective actions for fire-fighters

- When extinguishing a fire, always do so from upwind and always wear protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Non-emergency personnel
- 1 Immediately contact emergency responders.
 - 2 Eliminate all ignition sources. Keep unnecessary personnel away.
 - 3 Do not touch or walk through spilled material.
 - 4 Use suitable protective equipment (section 8).Follow all fire-fighting procedures (section 5).
 - 5 Do not touch damaged containers or spilled material unless wearing appropriate protective equipment.
 - 6 When mist is generated, use respiratory equipment to prevent inhalation of mist.

- Emergency responders
- Wear oil resistant personal protective clothing.
- Environmental precautions**
- Avoid contact of spilled material with soil and prevent runoff entering surface waterways.
- Methods and materials for containment and cleaning up**
- 1 If emergency personnel are unavailable, contain spilled material.
 - 2 For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal.
 - 3 For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

General Handling Information

- 1 Avoid contact with flames, sparks, or hot bodies, and do not vent vapors unnecessarily.
- 2 Take measures against static electricity, and use conductive work clothes, shoes, etc.
- 3 When repairing or processing a machine or device that contains hazardous materials, remove the hazardous materials completely in a safe place before starting work.
- 4 use pumps or other proper equipment for taking out from containers. do not siphon with your mouth using a tube. do not drink.
- 5 Always close the container after use.
- 6 Do not put pressure on the container. It may burst under pressure.
- 7 Emptied container still contains hazardous material which may ignite with explosive violence if heated sufficiently.
- 8 Handle at room temperature, taking care to avoid contamination by moisture and other miscellaneous substances.
- 9 Vapors generated from petroleum products are heavier than air, so they tend to stay in the air. Therefore, ventilation and attention to fire are necessary.
- 10 Avoid release to the environment.
- 11 Obtain special instructions before use.
- 12 Do not handle until all safety precautions have been read and understood.
- 13 Use only outdoors or in a well-ventilated area.

Contact avoidance

- Avoid contact with halogens, strong acids, alkalis, and oxidizing substances.

Precautionary Measures

- 1 If mist is generated, wear respiratory protection and avoid breathing mist.
- 2 Wear protective gloves/protective clothing/eye protection/face protection.
- 3 Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Safe Storage Conditions

- 1 Store in a well-ventilated place out of direct sunlight
- 2 Store in a tightly closed container after use to prevent contamination by dust, moisture, etc.
- 3 Avoid heat, sparks, flames, and static electricity buildup
- 4 Electrical apparatus used in the storage area should be explosion-proof and ground the apparatus.

Incompatible material

- Avoid contact with halogens, strong acids, alkalis, oxidizing substances, and storage in the same place.

Safe Container and Packaging Materials

- No special container design is required, but metal or polyethylene containers should be used.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

- As mineral oil mist.
Japan Society for Occupational Health (2024) 3mg/m³
ACGIH (2010) TWA 5mg/m³
Kerosine
Japan Society for Occupational Health (2024) 3mg/m³ (As mineral oil mist)
ACGIH (2023) TWA 200mg/m³
(Kerosine/Jet fuels, as total hydrocarbon vapor)

Appropriate engineering control

- 1 If mist is generated, the source should be sealed or an exhaust system should be installed.
- 2 Install facilities for eye and body washing near the handling area.

Individual protection measures, such as personal protective equipment (PPE)

Respiratory protection

- Normally not required, but wear a gas mask (for organic gases) if necessary.

Skin protection

Hand protection

- Wear impervious protective gloves.

Other

- Wear impervious protective equipment.

Eye/face protection

- Wear safety glasses in case of splashing.

Thermal hazards

- Respiratory protection should be worn due to gas emissions at high temperatures.

Special precautions

- Contaminated clothing should be removed and thoroughly washed before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state

Liquid

Colour

Blue transparent

Odour

Slight odor

Melting point/freezing point	Pour point: $\leq -25.0^{\circ}\text{C}$
Boiling point or initial boiling point and boiling range	Initial retention point: 145°C or more (presumed)
Flammability (solid, gas)	No data available
Lower and upper explosion limit/flammability limit	Explosion limit Lower limit: 1 volume% (estimated value) / Upper limit: 7 volume% (estimated value)
Flash point	$\geq 70^{\circ}\text{C}$
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Kinematic viscosity	$> 20.5 \text{ mm}^2/\text{s}(40^{\circ}\text{C})$
Solubility	Solubility in water: insoluble
Partition coefficient n-octanol/water (log value)	No data available
Vapour pressure	No data available
Density/relative density	Approx. $0.87\text{g}/\text{cm}^3$ (15°C)
Relative vapour density	No data available
Particle characteristics	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	<ul style="list-style-type: none">No known reactivity under normal conditions of use.
Chemical stability	<ul style="list-style-type: none">Stable under normal conditions.
Possibility of hazardous reactions	<ul style="list-style-type: none">No hazardous reaction under normal handling conditions.
Conditions to avoid	<ul style="list-style-type: none">Avoid high temperatures and sources of ignition.
Incompatible materials	<ul style="list-style-type: none">Avoid contact with halogens, strong acids, alkalis, and oxidizing substances.
Hazardous decomposition products	<ul style="list-style-type: none">Under normal conditions of storage and use, no hazardous decomposition products are formed.
Other Information	<ul style="list-style-type: none">No useful information at this time.

SECTION 11. TOXICOLOGICAL INFORMATION

Product has not been tested. The following descriptions are based on the GHS classification of individual ingredients.

Acute toxicity	
ORAL	<ul style="list-style-type: none">ATE $> 2000\text{mg}/\text{kg}$ 「Classification not possible」 5~15% of the mixture consists of ingredient of unknown acute oral toxicity.
DERMAL	<ul style="list-style-type: none">ATE $> 2000\text{mg}/\text{kg}$ 「Classification not possible」 5~15% of the mixture consists of ingredient of unknown acute dermal toxicity.
INHALATION (Vapours) (Dust/mist)	<ul style="list-style-type: none">No useful information at this time.ATE $> 5\text{mg}/\text{L}$ 「Classification not possible」 35~45% of the mixture consists of ingredient of unknown acute inhalation toxicity.
Skin corrosion/irritation	<ul style="list-style-type: none">Result of GHS classification judgment 「Category 2」 Kerosine : Category 2
Serious eye damage/irritation	<ul style="list-style-type: none">Due to lack of data 「Classification not possible」
Respiratory or skin sensitization	
Respiratory sensitization	<ul style="list-style-type: none">No useful information at this time.
Skin sensitization	<ul style="list-style-type: none">Due to lack of data 「Classification not possible」
Germ cell mutagenicity	<ul style="list-style-type: none">Due to lack of data 「Classification not possible」
Carcinogenicity	<ul style="list-style-type: none">Result of GHS classification judgment 「Category 2」 Kerosine : Category 2
Reproductive toxicity	<ul style="list-style-type: none">Due to lack of data 「Classification not possible」
STOT-single exposure	<ul style="list-style-type: none">Result of GHS classification judgment 「Category 3 (Respiratory tract irritation, Narcotic effects)」 Kerosine : Category 3 (Respiratory tract irritation, Narcotic effects)
STOT-repeated exposure	<ul style="list-style-type: none">Due to lack of data 「Classification not possible」
Aspiration hazard	<ul style="list-style-type: none">Cannot be classified because it does not correspond to hydrocarbons with a kinematic viscosity of $20.5 \text{ mm}^2/\text{s}$ or less at 40°C.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity	
Product has not been tested. The following descriptions are based on the GHS classification of individual ingredients.	
HAZARDOUS TO THE AQUATIC ENVIRONMENT	
short-term(Acute)	<ul style="list-style-type: none">Result of GHS classification judgment 「Category 3」 Additive compound liquid : Part of the ingredients are Category 2 20~30% of the mixture consists of ingredient of unknown hazards to the aquatic environment.
long-term(Chronic)	<ul style="list-style-type: none">Result of GHS classification judgment 「Category 3」 Additive compound liquid : Part of the ingredients are Category 2

	50~60% of the mixture consists of ingredient of unknown hazards to the aquatic environment.
Persistence and degradability	• No data available
Bioaccumulative potential	• No data available
Mobility in soil	• Generally floats on water
Other adverse effects HAZARDOUS TO THE OZONELAYER	• Classification not possible

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	• Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied.
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SECTION 14. TRANSPORT INFORMATION

International regulation	
UN Number	• Not regulated.
UN proper shipping name	• Not regulated.
Transport hazard class	• Not regulated.
Packing group	• Not regulated.
Environmental hazards	• Not regulated.
Special precautions for user	• No useful information at this time.
Transport in bulk according to IMO instruments	• Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulation specific for the product in question

Inventory Status

Japan inventory (ENCS)	All components are listed or exempted.
United States inventory (TSCA)	All components are listed or exempted.
Canada inventory (DSL)	All components are listed or exempted.
Australia inventory (AICS)	All components are listed or exempted.
Korea inventory (KECL)	All components are listed or exempted.
China inventory (IECSC)	All components are listed or exempted.
Philippines inventory (PICCS)	All components are listed or exempted.

SECTION 16. OTHER INFORMATION

【Citation】

1. Recommendation of Occupational Exposure Limits (2024) Japan Society for Occupational Health

2. Raw materials SDS

【Reference Information】

1. Globally Harmonized System of Classification and Labelling of Chemicals 「GHS Rev. 6, 2015」

2. JIS Z 7252:2019 Classification of chemicals based on "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)"

3. JIS Z 7253:2019 Hazard communication of chemicals based on GHS - Labelling and Safety Data Sheet (SDS)

Safety Data Sheets are provided to handling companies as reference information to ensure safe handling of hazardous chemical products. Business operators handling the products are requested to use the Safety Data Sheet as a reference and to understand that they must take appropriate measures according to the actual conditions of their own handling at their own responsibility.

Therefore, this data sheet itself is not a guarantee of safety. The information contained herein is based on information available as of the date of revision and is not a guarantee of its contents. Since the contents may change in the future due to revisions of various laws and regulations or product information, sales and distribution companies are requested to always provide the latest safety data sheets to those who handle the products.