



## SAFETY DATA SHEET

SDS: 48140-E231EEN

Date Prepared: 2010/07/01

Date Revised: 2023/07/21

Product Name: YANMAR ROYAL FREEZE

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name: YANMAR ROYAL FREEZE

#### 1.2 Relevant identified uses of substance or mixture and uses advised against

Recommended use: General industrial application

#### 1.3 Details of the supplier of the safety data sheet

Identification of the supplier: ENEOS Corporation

Address: 1-2, Otemachi 1-Chome, Chiyoda-ku, Tokyo, 100-8162 Japan

Charge section: Lubricants Quality Assurance Group  
(TEL:+81 3-6260-2004)

#### 1.4 Emergency telephone number

Emergency telephone number: +81-3-6260-2004  
(Contact Available time: From 9:00 to 17:30 GMT +9 hours)

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

Hazard category	Category
Acute toxicity (oral)	Category 5
Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2B
Specific target organ systemic toxicity following single exposure	Category 1
Specific target organ systemic toxicity following repeated exposure	Category 1
Acute hazards to the aquatic environment	Category 3

#### 2.2 Label elements

Hazard pictograms:



Signal word: Danger

Hazard statement: May be harmful if swallowed  
H3Causes mild skin irritation  
Causes eye irritation  
Causes damage to organs (central nerve system, kidney, heart, respiratory apparatus).



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H Causes damage to organs (central nerve system, heart, respiratory apparatus) through prolonged or repeated exposure.

Harmful to aquatic life

### Precautionary statements:

Prevention 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.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Response 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.

Get medical advice/attention if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Storage 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.

Store locked up.

Disposal 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.

### 2.3 Other hazards

PBT or vPvB : Not applicable

## 3. Composition/information on ingredients

### 3.1. Substances

Not Applicable



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### 3.2. Mixtures

Ingredients and Concentration

Ingredient Name	Concentrationwt. %
Ethylene Glycol	90-92
Water	2-4

## 4. First aid measures

### 4.1 Description of first aid measures

Inhalation:	<p>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>Get medical advice/attention if you feel unwell.</p> <p>Cover the body with blankets to keep warm and quiet. If you feel unwell, seek medical advice.</p>
Skin contact:	<p>Immediately flush skin with large amounts of water.</p> <p>Wash contaminated clothing before reuse.</p> <p>If skin irritation occurs: Get medical advice/attention.</p>
Eye contact:	<p>Rinse with clean water carefully for several minutes. Remove contact lenses if present and if removal is easy, then continue rinsing. Rinse for 15 minutes at a minimum and seek medical attention.</p> <p>If eye irritation persists: Get medical advice/attention.</p>
Ingestion:	<p>Do not induce vomiting. Drink [one glass] [two glasses] of water. Call a physician [or poison control center] immediately.</p> <p>Get medical advice/attention if you feel unwell.</p>

### 4.2 Most important symptoms and effects, both acute and delayed

No information for mixtures.

No information.

### 4.3 Indication of any immediate medical attention and special treatment needed.

No information for mixtures.

## 5. Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:	Mist of loaded liquid, dry chemicals, carbon dioxide, fire foam, and dry sand are effective.
Extinguishing media to avoid:	Use of straight stream of water can cause a risk of spreading fire.



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### 5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical: In some cases of fire, may release irritant gases.

When burnt, may generate carbon monoxide and other toxic gases.

Fire fighting:

Spray water to the surrounding facilities for cooling.

Keep unauthorized persons off the site of occurrence of fire and the surroundings.

Even after extinction, cool containers thoroughly with plenty of water.

### 5.3 Advice for fire-fighters

Special protective equipment and precautions for fire fighters:

Wear fire resistant or flame retardant clothing.

Fight fire from windward direction while wearing protective equipment. If contact with skin is expected, wear impervious protective equipment and gloves.

Use air-breathing apparatus and protective clothing whenever necessary.

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## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency measures

Wear protective equipment when working.

Remove nearby potential ignition sources immediately.

When mist is generated, use respiratory equipment to prevent inhalation of mist.

Do not touch or walk through spillage.

Pay attention to the site of spillage, which is slippery.

### 6.2 Environmental precautions

Avoid release to the environment.

Prevent spreading of oil spill with earth and sand, sandbags, or other proper materials and use care not to allow the oil spill to flow to street drains, sewer systems, and rivers.

At sea, install oil spill containment booms to prevent spreading of spills and absorb with absorption mat or other proper materials.

### 6.3 Methods and material for containment and cleaning up

In case of spillage in small quantity, collect spillage by absorbing with earth, sand, sawdust, waste, or other proper materials.



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In case of spillage in large quantity, enclose with embankment to prevent spreading of spillage and collect spillage in empty containers to the extent possible.

### 6.4 Reference to other sections

In case of spillage, immediately inform the organizations concerned of the spillage to prevent possible accidents and spreading of spillage.

Remove nearby potential ignition sources immediately and make fire-extinguishing agents available. Remove spillage completely, and ventilate and clean the site and the surroundings.

## 7. Handling and storage

### 7.1 Precautions for safe handling

Technical measures:	Keep away from any possible contact with sparks, open flames, and high-temperature materials, and do not allow release of vapor without justification.
	Use pumps or other proper equipment for taking out from containers. Do not siphon with your mouth using a tube. Do not drink.
	When mist is generated, use respiratory equipment to prevent inhalation of mist.
	In case of vapor/mist dispersion, install a closed system, local ventilation system, and/or other proper equipment for the sources of vapor/mist generation.
	Avoid rough handling of containers such as falling, dropping, exposing to shock, and dragging.
Ventilation requirements:	Maintain adequate ventilation when handling indoors.
Precautions for safe handling:	Do not breathe dust/fume/gas/mist/vapours/spray.
	Do not eat, drink or smoke when using this product.
	Avoid falling, dropping, exposing to shock, or dragging of containers.
	Wash hands and face thoroughly after handling.
	Be careful with fire.
	Wear protective gloves when opening containers to eliminate a risk of hand injury.
Contact avoidance:	No information
Hygiene measures:	After handling Wash hands thoroughly.

### 7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Store locked up.



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Store in a well ventilated, cool, dry, dark place, protecting from direct sunlight and keeping away from any potential ignition sources and high-temperature materials.

Store tightly stopped after use to prevent possible contamination with dust and moisture.

Preferably store locked up in a proper storage area.

Use spill-proof containers that are free of damage/corrosion.

Safety  
adequate  
container  
materials:

### 7.3 Specific end use(s)

General industrial application

## 8. Exposure controls/personal protection

### 8.1. Control parameters

Ingredient Name	Japan Society for Occupational Health	ACGIH	
	Occupational Exposure Limits	TLV-STEL	TLV-TWA
Ethylene Glycol	-ppm -mg/m <sup>3</sup>	50ppm 10mg/m <sup>3</sup>	25ppm -mg/m <sup>3</sup>

### 8.2. Exposure controls

Appropriate engineering controls: In case of mist generation, enclose the source of mist generation, or install a ventilation system.

Install eye cleaning and body cleaning equipment near the handling site.

Respiratory protection: Not needed under normal conditions, but wear a gas mask (against organic gases) whenever required.

Hand protection: In case of prolonged or repeated exposure, wear oil-resistant hand protection.

Eye/face protection: In case of exposure to splashes, wear ordinary type goggles.

Skin protection: In case of handling over a prolonged period of time or in case of exposure to oil, wear oil-resistant, long-sleeved work clothing.

Hygiene measures: Take off contaminated clothing and wash thoroughly before reuse.

Wash hands thoroughly after handling.



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### 9. Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Form:	Liquid
Color:	Green
Odor:	Slight odor
Melting point/freezing point:	Pour Point No data
Initial boiling point and boiling range:	Approx. 170(°C)
Flammability (solid, gas):	No data
Upper/lower flammability or explosive limits:	No data.
Flash point:	120—140(°C)
Auto-ignition temperature:	No data.
Decomposition temperature:	No data.
pH:	7.5—8.5
Kinematic viscosity:	No data
Solubility:	water : Miscible.
Partition coefficient: n-octanol/water:	No data.
Vapour pressure:	No data
Density(g/cm <sup>3</sup> ):	1.131—1.141(20°C)
Vapour density:	No data.
Particle characteristics:	No data

### 10. Stability and reactivity

#### 10.1 Reactivity

Not Reactive  
Stable when stored or preserved in a dark place at room temperature.

#### 10.2 Chemical stability

Stable when stored or preserved in a dark place at room temperature.



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### 10.3 Possibility of hazardous reactions

Keep away from any possible contact with strong oxidizing agents.

### 10.4 Conditions to avoid

Contact with incompatible hazard substances

Prolonged heating, open flames, and ignition sources

### 10.5 Incompatible materials

Use care to keep away from any possible contact with halogens, strong acids, alkalis, and acidifying substances.

### 10.6 Hazardous decomposition products

When burnt, may release carbon monoxide and other gases.

## 11. Toxicological information

### 11.1 Information on toxicological effects

Product

Acute toxicity (oral):	Category 5 For mixtures, hazard category was identified based on the classification criteria for mixtures.
Acute toxicity (dermal):	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Acute toxicity (inhalation):	Classification not possible (Gas) Classification not possible (Vapour) Classification not possible (Dust/Mist) For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin corrosion/irritation:	Category 3  For mixtures, hazard category was identified based on the classification criteria for mixtures.
Serious eye damage/irritation:	Category 2B  For mixtures, hazard category was identified based on the classification criteria for mixtures.
Respiratory sensitization:	Classification not possible





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	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin sensitization:	Classification not possible
	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Mutagenicity:	Classification not possible
	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Carcinogenicity:	Classification not possible
	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Reproductive toxicity:	Classification not possible
	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Target organ effect/Single exposure:	Category 1 (central nerve system, kidney, heart, respiratory apparatus)
	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Target organ effect/Multi exposure:	Category 1 (central nerve system, heart, respiratory apparatus)
	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Respiratory toxic:	Classification not possible
	For mixtures, hazard category was identified based on the classification criteria for mixtures.

### 11.2 Other information

Product

No information for mixtures.

## 12. Ecological information

Product

### 12.1 Toxicity

Ecotoxicity

Acute toxicity:

Category 3



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Fish: For mixtures, hazard category was identified based on the classification criteria for mixtures.

Daphnia: No information.

Algae: For mixtures, hazard category was identified based on the classification criteria for mixtures.

Chronic toxicity: Classification not possible

Fish: For mixtures, hazard category was identified based on the classification criteria for mixtures.

Daphnia: No information.

Algae: For mixtures, hazard category was identified based on the classification criteria for mixtures.

### 12.2 Persistence and degradability

Persistence and degradability: No information available on mixtures

### 12.3 Bioaccumulative potential

Bioaccumulative potential: No information for mixtures.

### 12.4. Mobility in soil

Mobility in soil: No information for mixtures.

Hazardous to the ozone layer: Classification not possible

### 12.5. Results of PBT and vPvB assessment

Not applicable

### 12.6. Other adverse effects

Other impact: No information for mixtures.

## 13. Disposal considerations

### 13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Every customer/user of the product should dispose of industrial waste on its own responsibility, otherwise it must rely on a company authorized by prefectural governor for treating industrial waste or a local public body involved in the disposal of industrial waste for proper disposal.

Before disposal of used container, remove contents completely.

### 13.2 Other information

No additional information

## 14. Transport information



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Product Name: YANMAR ROYAL FREEZE

**14.1 UN Number:**

IATA UN number: Not regulated

IMDG UN number: Not regulated

**14.2 UN proper shipping name:**

IATA Proper shipping name: Not regulated

IMDG Proper shipping name: Not regulated

**14.3 Transport hazard class(es):**

IATA UN classification: Not regulated

IMDG UN classification: Not regulated

**14.4 Packing group:**

IATA Packing group: Not regulated

IMDG Packing group: Not regulated

Domestic restriction: No information.

**14.5 Special precautions for user:**

Transport containers without causing any significant friction or shaking.

**15. Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance**

Australia(AICS) : All components are listed or exempted.

Canada(DSL) : All components are listed or exempted.

China(IECSC) : All components are listed or exempted.

EU(REACH) : In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.

Korea(K-REACH) : In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.

New Zealand(NZIoC) : All components are listed or exempted.

Philippines(PICCS) : All components are listed or exempted.

Taiwan(TCSI) : All components are listed or exempted.

USA(TSCA) : All components are listed or exempted.

**15.2 Chemical safety assessment**

Not conducted

**16. Other information**



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Full text of H-Statements referred to under section 2 and 3:

May be harmful if swallowed  
H3Causes mild skin irritation  
Causes eye irritation  
Causes damage to organs.  
HCauses damage to organs through prolonged or repeated exposure.  
Harmful to aquatic life

Reference

No information.

Disclaimer:

We at ENEOS Corporation have prepared the copyrighted Safety Data Sheet to provide reference information on the hazardous chemical product of interest for our customers/users to ensure secure and safe handling. We would like every customer/user of the product to refer to the information and understand the necessity of taking appropriate measures for the actual handling conditions on their own responsibilities for optimum practical application of the product of interest. Consequently, the Safety Data Sheet is not intended to guarantee the safety of the product referenced to herein.