



## Safety Data Sheet (SDS)

### 1. Product & Company Identification

Product Name

Mighty Foam For Marine Use

Manufacturer

: Yamato Protec Corporation

Address

: 5-17-2 Shirokanedai, Minato-ku, Tokyo

Phone Number

: 0570-080100 (Navi Dial)

Department

: Technical Support

Suggested Use & Limitations on Use : Fire Extinguishing Agent

### 2. Hazards Identification

GHS Classification

Items not listed below are “Not classified”, “Unclassifiable”

Health Hazards

Skin Corrosion/Irritation : Category 3

Serious Eye Damage/Eye Irritation : Category 2B

Environmental Hazards : Not classified

Representation or Symbol : Not applicable

Alert Level : Warning

Hazard hazard statements

Causes mild skin irritation

Causes eye irritation

Safety Precautions

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash hands thoroughly after handling.

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### First Aid Measures

#### IF ON SKIN

If skin irritation occurs: Get medical advice/attention.

#### 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

Avoid high humidity, keep the product within the operating temperature range, and if possible, under lock indoors.

#### Disposal

The contents and the container should be disposed of by waste disposal contractors licensed by the Governor.

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### 3. Composition/Information on Ingredients

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Single Component or Mixture : Mixture

Chemical Name or Common Name : Fire extinguishing foam  
(Protein foam fire extinguishing agent)

Chemical Name or Common Name	CAS Number	Official Gazette Reference Code	Concentration or Concentration Range
Keratin hydrolysate	Trade secret	Trade secret	Trade secret
Dipropylene glycol	25265-71-8	(2)-413	1 to 10%
Fluorochemical surfactant	Trade secret	Trade secret	< 3%

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### 4. First Aid Measures

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#### IF INHALED

Call a POISON CENTER/ doctor if you feel unwell.

#### IF ON SKIN

If skin irritation occurs: Get medical advice/ attention.

#### 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.

#### IF SWALLOWED

Call a POISON CENTER/ doctor if you feel unwell.

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## 5. Fire Fighting Measures

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Fire Extinguishing Agent	: Not applicable due to non-combustibility
Fire Extinguishing Agent Not To Be Used	: Not applicable
Special Hazards	: No data available
Special Fire Fighting Procedures	: Not applicable
Protection of Fire Fighters	: Not applicable

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## 6. Leakage Measures

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### Personal Precautions, Protective Equipment and Emergency Measures

Immediately isolate the appropriate distances in all directions as leakage area.

Prohibit unauthorized persons from entering the area.

The workers should wear suitable protective equipment (See “8. Exposure Prevention and Protection Measures”) and avoid eye or skin contact and inhalation.

Do not touch any damaged container or leaked material without wearing suitable protective clothing.

Stay in the wind.

Leave depression.

Ventilate sealed places.

### Environmental Precautions

Be careful not to affect the environment by discharging into rivers and others.

Dispose of the collection as industrial waste.

### Collection, neutralization, containment, and cleanup procedures and equipment

Sweep scattered matter together into a sealable container and dispose of it according to “13. Disposal Considerations”. Then, wash off with plenty of water. In this case, be careful so that thick waste fluid does not flow into rivers and others.

### Prevention of Secondary hazards

Collect leaked material immediately.

Prohibit unauthorized persons from entering the area around the leaked place.

In the case of inflow into rivers or public waterways, report to the person in charge of pollution in the local government immediately.

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## 7. Handling and Storage Instructions

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### Handling

- Technical Measures : Implement measures stated in “8. Exposure Prevention and Protection Measures” and wear suitable protective equipment such as protective glasses and gloves.
- Local Exhaust and Whole Ventilation : Implement local exhaust and whole ventilation stated in “8. Exposure Prevention and Protection Measures.”
- Safe Handling Instructions : Use only outdoors or in a well-ventilated area.  
Avoid contact, inhalation or swallowing.  
Wash hands thoroughly after handling.

### Storage

- Storage Conditions : Avoid high humidity, keep the product within the operating temperature range, and if possible, under lock indoors.
- Container and Packing Material : Product container or appropriate fire extinguishing equipment

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## 8. Exposure Prevention and Protection Measures

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- Equipment Measures : Perform exhaust ventilation to keep the atmospheric concentration within exposure limits.  
Install eye washer and safety shower in the workplace to store and handle this product.
- Control Concentration : Not specified.
- Allowable Concentration : Not specified.
- Equipment Measures : Local exhaust, eye washer, safety shower
- Protective Equipment
- Respiratory Protective Equipment : Wear a gas mask.
- Hand Protection : Use impervious protective gloves.
- Eye Protection : Wear protective glasses.
- Skin and Body Protection : Wear protective clothing and masks.

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## 9. Physical and Chemical Properties

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Physical State	: liquid
Color	: Brown-black
Odor	: Unique odor
Melting Point/Freezing Point	: No data available
Boiling Point, initial boiling point and Boiling Range	: No data available
Flammability	: Not applicable
Lower and upper explosion limit/ flammability limit	: Not applicable
Flash Point	: No data available
Autoignition Temperature	: No data available
Decomposition Temperature	: No data available
pH	: 6.8 (20 °C)
Kinematic viscosity (Viscosity)	: 50 cSt (20 °C)
Solubility	: Easily soluble in water
Partition coefficient n-octanol/ water (log value)	: No data available
Vapor Pressure	: No data available
Density and/ or relative density (specific gravity)	: 1.15 (20 °C)
Relative vapour density	: No data available
Particle characteristics	: Not applicable

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## 10. Stability and Reactivity

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Reactivity	: No data available
Chemical stability	: Stable under normal handling conditions
Hazardous Reactivity	: No hazardous reactivity under normal handling conditions
Conditions to Avoid	: No data available
Incompatible Hazardous Materials	: No data available
Hazardous Decomposition Products	: HF (hydrogen fluoride), F <sub>2</sub> (fluorine gas) and fluorocarbons can be generated.

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## 11. Toxicological Information

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Acute Toxicity	
Oral	: Not classified
Dermal	: Not classified
Inhalation :Gass	: Unclassifiable
:Vapours	: Unclassifiable
:Dust and Mist	: Unclassifiable
Skin Corrosion/Irritation	: Category 3
Serious Eye Damage/Eye Irritation	: Category 2B
Respiratory or Skin Sensitization	: No data available
Germ-Cell Mutagenicity	: No data available
Carcinogenicity	: Unclassifiable
Reproductive Toxicity	: Not classified
Specific Target Organ Toxicity (Single exposure):	: Not classified
Specific Target Organ Toxicity (Repeated exposure):	: Not classified
Aspiration Hazard	: No data available

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## 12. Environmental Impact Information

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Ecotoxicity	
Hazardous to the aquatic environment – Acute hazard	: Not classified
Hazardous to the aquatic environment – Long term hazard	: Not classified
Persistence and Decomposability	: No data available
Bioaccumulation	: No data available
Migration in Soil	: No data available
Hazardous to the ozonelayer	: Unclassifiable

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### 13. Disposal Considerations

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#### Residual Waste

Disposal should be in accordance with applicable laws and local regulations. The substance should be disposed of by waste disposal contractors licensed by the Governor or by local public entities if appropriate.

Waste disposal contractor, if used, should be well informed of potential hazards and toxicity from the waste.

#### Contaminated Containers and Packages

Containers should be properly disposed of in accordance with applicable laws and local regulations. If containers are disposed of, their contents should be completely removed.

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### 14. Transport Considerations

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United Nations Number	: Not applicable
Product Name	: Not applicable
United Nations Classification	: Not applicable
Container Class	: Not applicable
Marine Pollution Materials	: Not applicable
National Regulations:	
Land Regulatory Information	Follow the provisions of the Fire Service Act
Aeronautical Regulatory Information	Follow the provisions of the Civil Aeronautics Act
Maritime Regulatory Information	Follow the provisions of the Ship Safety Act

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## 15. Applicable Laws

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Industrial Safety and Health Act

Not applicable

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Law)

Not applicable

Poisonous and Deleterious Substances Control Act

Not applicable

Fire Service Act

Not applicable as hazardous material

Civil Aeronautics Act

Not applicable

Ship Safety Act

Not applicable

Water Pollution Control Act

Not applicable

Sea Pollution Prevention Act

Not applicable

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## 16. Other Information

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This product should be used with the understanding that the use of any chemicals involves unknown potential hazards and toxicity. Hazards and toxicity depend on the environment of use and the storage conditions and period. We suggest that those with knowledge and experience be involved in all stages from use through storage and disposal.

The instructions provided in this document should apply when the product is handled normally. If the product is handled in a special way, proper safety precautions should be taken. Also, it should be used under the responsibility of the user.

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