

## Safety Data Sheet (SDS)

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### 1. Product & Company Identification

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Product Name

YPS-80F Agent

(Type approval Number: HINPYOZAI (Evaluated agent) No. 24 - 3)

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 for fire extinguishing equipment

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### 2. Hazards Identification

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#### GHS Classification

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

#### Health Hazards

Acute Toxicity (Oral) : Category 5

Skin Corrosivity/Irritation : Category 3

Serious Eye Damage/Eye Irritation : Category 2B

Reproductive Toxicity : Category 1B

Specific Target Organ Toxicity, Single exposure

Category 1 (Respiratory system, heart, kidney, central nerve system)

Specific Target Organ Toxicity, Repeated exposure

Category 1 (Respiratory system, heart, central nerve system)

#### Environmental Hazards

Hazardous to the aquatic environment – Acute hazard : Category 3

Representation or Symbol:



Alert Level : Danger

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Hazard hazard statements

May be harmful if swallowed

Causes mild skin irritation

Causes eye irritation

May damage fertility or the unborn child

Causes damage to Respiratory system, heart, kidney, central nerve system

Causes damage to Respiratory system, heart, central nerve system through prolonged or repeated exposure.

Harmful to aquatic life

Precautionary statement

Safety Precautions

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

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

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

Wash hands thoroughly after handling.

Wear respiratory protection.

Avoid release to the environment.

First Aid Measures

IF SWALLOWED

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 exposed or concerned

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 Agent (Category III Water with Spreader, etc.)

| Chemical Name<br>or Common Name | CAS Number | Official Gazette<br>Reference Code | Concentration or<br>Concentration Range |
|---------------------------------|------------|------------------------------------|---|
| Ammonia compound                | Available  | Available                          | 20 to 50%                               |
| Ethylene glycol                 | 107-21-1   | (2)-230                            | 10 to 20%                               |

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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.

If exposed or concerned

Get medical advice/attention.

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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.

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, if required.

Safe Handling Instructions : None in particular

Hygiene Measures : Wash hands thoroughly after handling.

### Storage

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

Container and Packing Material : Appropriate fire extinguishing equipment and product container.

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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          | : Ethylene glycol STEL C 100mg/m <sup>3</sup> , Upper limit (ACGIH)   |
| Equipment Measures               | : Local exhaust, eye washer, safety shower  |
| Protective Equipment             |   |
| Respiratory Protective Equipment | : Wear suitable respiratory protective equipment.   |
| Hand Protection                  | : Wear suitable protective gloves.  |
| Eye Protection                   | : Use suitable eye protection.  |
| Skin and Body Protection         | : Wear suitable protective clothing and masks.  |

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## 9. Physical and Chemical Properties

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|  |                           |
|--|---------------------------|
| Physical State   | : liquid                  |
| Color  | : Clear                   |
| Odor   | : Unique odor             |
| Melting Point/Freezing Point                           | : - 20.5°C or less        |
| 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  | : None                    |
| Autoignition Temperature                               | : No data available       |
| Decomposition Temperature                              | : No data available       |
| pH   | : 6.7 (20 °C)             |
| Kinematic viscosity (Viscosity)                        | : No data available       |
| 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)    | : 1.21 (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             | : May produce ammonia gas in reaction to a strong alkaline substance.<br>May react when contacting or mixing with a strong oxidizer. |
| Conditions to Avoid              | : Sunlight, heat   |
| Incompatible Hazardous Materials | : Strong alkaline substance, strong oxidizer   |
| Hazardous Decomposition Products | : Ammonia, nitrogen oxide  |

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## 11. Toxicological Information

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|   |  |
|---|--|
| Acute Toxicity                                      |  |
| Oral  | : Category 5   |
| 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                   | : Unclassifiable   |
| Germ-Cell Mutagenicity                              | : Unclassifiable   |
| Carcinogenicity                                     | : Unclassifiable   |
| Reproductive Toxicity                               | : Category 1B  |
| Specific Target Organ Toxicity (Single exposure):   | : Category 1 (Respiratory system, heart, kidney, central nerve system) |
| Specific Target Organ Toxicity (Repeated exposure): | : Category 1 (Respiratory system, heart, central nerve system)         |
| Aspiration Hazard                                   | : Not classified   |

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## 12. Environmental Impact Information

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|   |                     |
|---|---------------------|
| Ecotoxicity   |                     |
| Hazardous to the aquatic environment – Acute hazard     | : Category 3        |
| 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          | : No data available                                |
| Special Safety Measures             | : 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

Dangerous or Harmful Substances Subject to be Indicated their Names, etc.

(Appended Table 9, Order Article 18 (1) & (2), Article 57-1 of the Act)

Ethylene glycol

Dangerous or Harmful Substances Subject to be Notified their Names, etc.

(Appended Table 9, Order Article 18-2 (1) & (2), Article 57-2 of the Act)

Ethylene glycol (Cabinet Order No. 75): 10-20%

### 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

Order Article 2 Ammonia compound

### Sea Pollution Prevention Act

Harmful liquid substance Z substance

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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.