

Safety Data Sheet (SDS)

1. Product & Company Identification

Product Name

YNX Agent (Type approval number: Agent No. 2020 - 2)

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” or “Not eligible for classification”

Health Hazards

Acute toxicity, oral : Category 4
Skin corrosion/irritation : Category 1
Serious Eye Damage/Eye Irritation : Category 1
Reproductive Toxicity : Category 1B

Specific Target Organ Toxicity (Single exposure):

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

Category 3 (Respiratory tract irritation, Narcotic effects)

Specific Target Organ Toxicity (Repeated exposure):

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

Environmental Toxicity

Hazardous to the aquatic environment – Acute hazard : Category 3

Representation or Symbol



Alert Level

: Danger

This SDS has been prepared based on the latest information available. However, we cannot guarantee the accuracy of the information and data contained herein, such as descriptions of hazards and toxicity. The latest rules, ordinances, laws and regulations of the national and local governments and organizations should be looked into and should apply.



Health hazard statements

- Harmful if swallowed
- Causes severe skin burns and eye damage
- Causes serious eye damage
- May cause drowsiness or dizziness
- Causes damage to Respiratory system, heart, kidney, central nerve system
- Causes damage to Respiratory system, heart, central nerve system through prolonged or repeated exposure.
- May damage fertility or the unborn child
- 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.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wear respiratory protection.

First Aid Measures

IF SWALLOWED

- Rinse mouth.
- Do NOT induce vomiting.
- Call a POISON CENTER/ doctor if you feel unwell.

IF ON SKIN

- Rinse skin with water/shower.
- Immediately call a POISON CENTER/doctor.

IF IN EYES

- Rinse cautiously with water for several minutes.
- Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER/doctor.

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.

3. Composition/Information on Ingredients

Single Component or Mixture : Mixture
Chemical Name or Common Name : Fire extinguishing agent

Reinforced liquid for fire extinguishers (Neutral)

| Chemical Name or Common Name | CAS Number | Official Gazette Reference Code | Concentration or Concentration Range |
|------------------------------|------------|---------------------------------|--------------------------------------|
| Ethylene glycol | 107-21-1 | (2)-230 | 20 to 25% |
| Ammonia compound | Available | Available | 1 to 30% |
| Hydrocarbon surfactant | Available | Available | 1 to 1.5% |
| Fluorochemical surfactant | Available | Available | 0.5% or less |

4. First Aid Measures

IF SWALLOWED

Rinse mouth.

Do NOT induce vomiting.

Call a POISON CENTER/ doctor if you feel unwell.

IF ON SKIN

Rinse skin with water/shower.

Immediately call a POISON CENTER/doctor.

IF IN EYES

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER/doctor.

If exposed or concerned

Get medical advice/attention.

5. Fire Fighting Measures

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

This SDS has been prepared based on the latest information available. However, we cannot guarantee the accuracy of the information and data contained herein, such as descriptions of hazards and toxicity. The latest rules, ordinances, laws and regulations of the national and local governments and organizations should be looked into and should apply.

6. Leakage Measures

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.

7. Handling and Storage Instructions

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 : Product container or appropriate fire extinguisher, etc.

This SDS has been prepared based on the latest information available. However, we cannot guarantee the accuracy of the information and data contained herein, such as descriptions of hazards and toxicity. The latest rules, ordinances, laws and regulations of the national and local governments and organizations should be looked into and should apply.

8. Exposure Prevention and Protection Measures

Allowable Concentration (Exposure limit, biological exposure index)

Ethylene glycol

ACGIH (2010 edition)

TWA-STEL C 100 mg/m³

Equipment Measures

None in particular

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.

Hygiene Measures : Wash hands thoroughly after handling.

9. Physical and Chemical Properties

| | |
|--|-----------------------------------|
| Physical State, Form, Color | : Light yellow transparent liquid |
| Odor | : Unique odor |
| pH | : 7.8 (20 °C) |
| Melting Point, Freezing Point | : -20.5°C or lower |
| Boiling Point, initial boiling point and Boiling Range | : No data available |
| Flash Point | : None |
| Explosion Limits | : No data available |
| Vapor Pressure | : No data available |
| Vapor Density (air = 1) | : No data available |
| Specific Gravity (relative density) | : 1.12 (20 °C) |
| Solubility | : Easily soluble in water |
| Octanol-Water Partition Coefficient | : Not applicable |
| Autoignition Temperature | : No data available |
| Decomposition Temperature | : No data available |
| Odor Threshold | : No data available |
| Evaporation Rate | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Viscosity | : No data available |

This SDS has been prepared based on the latest information available. However, we cannot guarantee the accuracy of the information and data contained herein, such as descriptions of hazards and toxicity. The latest rules, ordinances, laws and regulations of the national and local governments and organizations should be looked into and should apply.

10. Stability and Reactivity

| | |
|----------------------------------|---|
| Stability | : Stable under normal handling conditions |
| Reactivity | : No data available |
| 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 ₂ (fluorine gas) and fluorocarbons can be generated. |

11. Toxicological Information

| | |
|--|---------------------|
| Acute Toxicity | : Category 4 (Oral) |
| Skin Corrosion/Irritation | : Category 1C |
| Serious Eye Damage/Eye Irritation | : Category 1 |
| Respiratory or Skin Sensitization | : No data available |
| Germ-Cell Mutagenicity | : Not classified |
| Carcinogenicity | : Unclassifiable |
| Reproductive Toxicity | : Category 1B |
| Specific Target Organ Toxicity (Single exposure): | |
| Category 1 (Respiratory system, heart, kidney, central nerve system) | |
| Category 3 (Respiratory tract irritation, Narcotic effects) | |
| Specific Target Organ Toxicity (Repeated exposure): | |
| Category 1 (Respiratory system, heart, central nerve system) | |
| Aspiration Hazard | : No data available |

12. Environmental Impact Information

| | |
|---|----------------------------------|
| 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 |
| Harmfulness to ozone layer | : No data available |
| Others | |
| Other Environmental Toxicity: | |
| BOD: 3.5×10^5 mg/L | Measurement method JIS K 0102 21 |
| COD: 2.1×10^5 mg/L | Measurement method JIS K 0102 21 |

This SDS has been prepared based on the latest information available. However, we cannot guarantee the accuracy of the information and data contained herein, such as descriptions of hazards and toxicity. The latest rules, ordinances, laws and regulations of the national and local governments and organizations should be looked into and should apply.

13. Disposal Considerations

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

14. Transport Considerations

| | |
|-------------------------------------|---|
| United Nations Number | : When filled in a fire extinguisher, UN1044 |
| Product Name | : FIRE EXTINGUISHERS with compressed or liquefied gas |
| United Nations Classification | : 2.2 |
| 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 |

This SDS has been prepared based on the latest information available. However, we cannot guarantee the accuracy of the information and data contained herein, such as descriptions of hazards and toxicity. The latest rules, ordinances, laws and regulations of the national and local governments and organizations should be looked into and should apply.

15. Applicable Laws

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): 20-25%

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 Fluorine compound & ammonia compound

Sea Pollution Prevention Act

Harmful liquid substance Category Z substance

16. Other Information

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.