

## Safety Data Sheet (SDS)

### 1. Product & Company Identification

Product Name : Profoam 310  
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

### 2. Hazards identification

#### GHS classification

Health hazards : Acute toxicity (oral) Category 4  
: Acute toxicity (dermal) Category 3  
: Acute toxicity (inhalation:vapours) Category 3  
: Skin corrosion/irritation Category 2  
: Serious eye damage/eye irritation Category 2  
: Reproductive toxicity Category 2  
: Specific target organ toxicity (single exposure) Category 1 (respiratory system, kidneys, liver, blood system)  
: Specific target organ toxicity (single exposure) Category 3 (Narcosis)  
: Specific target organ toxicity (repeated exposure) Category 1 (blood system)  
Environmental hazards : Hazardous to the aquatic environment, short-term (acute) Category 3  
: Hazardous to the aquatic environment, long-term (chronic) Category 3

\*Hazards that are not described should be "Classification not possible" or "No classification"

#### GHS label elements

Hazard  
pictograms



Signal word : Danger

Hazard statements : Harmful if swallowed. (H302)  
Toxic in contact with skin or if inhaled (H311+H331)  
Causes skin irritation. (H315)  
Causes serious eye irritation. (H319)  
May cause drowsiness or dizziness. (H336)  
Suspected of damaging fertility or the unborn child. (H361)  
Causes damage to organs (respiratory system, kidneys, liver, blood system). (H370)  
Causes damage to organs (blood system) through prolonged or repeated exposure. (H372)

Harmful to aquatic life with long lasting effects. (H412)

## Precautionary statements

- [Prevention] : Obtain special instructions before use. (P201)  
Do not handle until all safety precautions have been read and understood. (P202)  
Wear protective gloves/protective clothing/eye protection/face protection. (P280)  
Wash hands thoroughly after handling. (P264)  
Do not breathe dust/fume/gas/mist/vapours/spray. (P260)  
Do not eat, drink or smoke when using this product. (P270)  
Use only outdoors or in a well-ventilated area. (P271)  
Avoid release to the environment. (P273)
- [Response] : Get medical advice/attention if you feel unwell. (P314)  
IF ON SKIN: Wash with plenty of water. (P302+P352)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
If eye irritation persists: Get medical advice/attention. (P337+P313)  
IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340)  
Call a POISON CENTER or doctor. (P311)  
Call a POISON CENTER or doctor if you feel unwell. (P312)  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. (P301+P312)  
Rinse mouth. (P330)  
IF exposed or concerned: Call a POISON CENTER or doctor. (P308+P311)  
IF exposed or concerned: Get medical advice/attention. (P308+P313)  
If skin irritation occurs: Get medical advice/attention. (P332+P313)  
Take off immediately all contaminated clothing and wash it before reuse. (P361+P364)  
Take off contaminated clothing and wash it before reuse. (P362+P364)
- [Storage] : Store in a well-ventilated place. Keep container tightly closed. (P403+P233)  
Keep cool. (P235)  
Store locked up. (P405)
- [Disposal] : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)

### 3. Composition/information on ingredients

Substance or mixture : Mixture

Chemical name	Concentration (%)	Reference number in the gazette list		CAS number
		CSCl No.	ISHL No.	
Polyoxyethylene alkyl ether sulfate ammonium salt	approx. 10	(7)-155 · (1)-391 (main component)	Listed	Trade secret
Higher alcohol	approx. 2	(2)-217	Listed	112-72-1
Higher alcohol	1.1 (included in the above 2)	(2)-217	Listed	112-53-8
Butyl cellosolve	approx. 30	(2)-407	Listed	111-76-2
2-Aminoethanol	< 1	(2)-301	Listed	141-43-5
Water and others	50 - 60	-	-	-

### 4. First aid measures

- Inhalation : Remove person to fresh air and keep comfortable for breathing.  
If you feel unwell, seek medical advice.
- Skin contact : Gently wash with plenty of soap and water.  
If skin irritation occurs: Get medical advice/attention.
- Eye contact : Immediately rinse with plenty of water (for at least 15 minutes).  
Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion	:	Get medical advice/attention.
		Rinse mouth out with water.
		Drink plenty of water.
		Call a physician immediately.
Personal protection in first aid and measures	:	Never give anything by mouth to an unconscious person.
		Wear proper protective equipment.

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## 5. Fire fighting measures

Suitable extinguishing media	:	Fire-extinguishing powder, Fire-extinguishing foam for water-soluble liquid, Carbon dioxide, Sand, Water spray
Prohibited extinguishing media	:	No information
Specific hazards	:	May liberate toxic gases. Do not breathe fumes.
Specific fire fighting	:	Eliminate all ignition sources if safe to do so. Use extinguishing agent suitable for surrounding fire. Extinguish the fire from the windward side as much as possible. Evacuate area. Apply water spray or fog to cool nearby equipment. Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment and precautions for fire-fighters	:	Do not attempt to take action without suitable protective equipment. Do not breathe fumes.

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## 6. Accidental release measures

Personal precautions, protective equipment and emergency measures	:	Do not attempt to take action without suitable protective equipment. In case of important spillage :Evacuate area. Ventilate spillage area.
Environmental precautions	:	Avoid release to the environment. Prevent entry to sewers and public waters.
Methods and materials for containing and cleaning up	:	In case of minor spill, remove the material with the use of adsorbents (e.g. soil, dry sand, and waste cloth). Wipe off the rest with waste cloth or a rag completely. Then wash the floor with plenty of water. In case of massive spill, prevent runoff of the material by blocking with mounds, remove it to a safe area, and collect it into drums.
Prevention of secondary hazards	:	Remove all ignition sources and prepare extinguishing agent. Use care in walking on spilled material. Use non-sparking tools.

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## 7. Handling and storage

### Handling

Technical measures	:	Provide an emergency eyewash and a quick drench shower in the immediate work area.
Precautions for safe handling	:	Ensure good ventilation of the work station. Wear proper protective equipment. After handling the material, wash your hands and face thoroughly and gargle.
Prevents handling of incompatible substances or	:	No information.

mixtures

**Storage**

- Safe storage condition : Protect from sunlight. Store in a well-ventilated place.  
Store in a closed container.
- Safe packaging materials : Use original container.

## 8. Exposure controls / Personal protection equipment

**Control parameters**

Chemical name	Japan administration level	JSOH	
		OEL	Ceiling
Butyl cellosolve	25 ppm	No data available	20 ppm (Skin) 97 mg/m <sup>3</sup> (Skin)
2-Aminoethanol	No data available	3 ppm 7.5 mg/m <sup>3</sup>	No data available

- Engineering measures** : Install local exhaust ventilation device if vapour, fume, mist, or dust generates.  
Provide an emergency eyewash and a quick drench shower in the immediate work area.
- Protective equipment**
- Respiratory protection : Wear appropriate mask. However, in places where oxygen is deficient or where there is a risk of oxygen depletion, do not use a mask and wear an air-supplied respiratory protective equipment appropriate for the danger instead.
- Hand protection : Wear appropriate protective gloves. (e.g.) Impervious (chemical-/oil-/solvent-proof) protective gloves
- Eye protection : Wear appropriate eye and face protection. (e.g.) Chemical goggles. Face shield.
- Skin and body protection : Wear appropriate protective wear and protective footwear. (e.g.) Long sleeve work clothes, etc. and protective footwear. They must be made of impervious material.
- Special notes** : No information

## 9. Physical and chemical properties

- Physical state : Liquid
- Colour : Light yellow
- Odour : Ether odour
- Melting/freezing point : ≤ -7.5 °C (fluid point)
- Boiling point or initial boiling point and boiling range : No data available
- Flammability : No data available
- Lower and upper explosion limit/flammability limit : 1.1 - 12.7 vol % (butyl cellosolve)
- Flash point : (Not applicable)
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- pH : Approximately 7.8 (20 °C)
- Kinematic viscosity : No data available
- Solubility :
- Solubility in water : Soluble
- Solubility in solvents : No data available

n-Octanol/water partition coefficient	: No data available
Vapour pressure	: 0.080 kPa (20 °C, butyl cellosolve)
Density and/or relative density	: Approximately 1.034 g/cm <sup>3</sup> (20 °C)
Relative vapour density	: No data available
Particle characteristics	: No data available
Other properties	: No data available

## 10. Stability and reactivity

Reactivity	: No information
Chemical stability	: Stable under normal conditions of use
Possibility of hazardous reactions	: Stable under normal conditions of use
Conditions to avoid	: No information
Incompatible materials	: No information
Hazardous decomposition products	: No information
Other properties	: No information

## 11. Toxicological information

Acute toxicity (oral)	: Category 4 LD50 1,197 mg/kg (calculated value) (including 3% component as unknown toxicity)
Acute toxicity (dermal)	: Category 3 LD50 551 mg/kg (calculated value) (including 27% component as unknown toxicity)
Acute toxicity (inhalation:gases)	: Classification not possible
Acute toxicity (inhalation:vapours)	: Category 3 LC50 5.3 mg/L (calculated value) (including 30% component as unknown toxicity)
Acute toxicity (Inhalation:dust,mist)	: Classification not possible
Skin corrosion/irritation	: Category 2 (2-Aminoethanol:Category 1A, Polyoxyethylene alkyl ether sulfate ammonium salt:Category 2, Higher alcohol:Category 2, Higher alcohol:Category 2, Butyl cellosolve:Category 2, a component:Category 2, a component:Category 2)
Serious eye damage/irritation	: Category 2 (a component:Category 1, 2-Aminoethanol:Category 1, Polyoxyethylene alkyl ether sulfate ammonium salt:Category 2A, Butyl cellosolve:Category 2A, a component:Category 2A, a component:Category 2A, Higher alcohol:Category 2B, Higher alcohol:Category 2B, a component:Category 2B, a component:Category 2B, a component:Category 2B)
Respiratory sensitization	: Classification not possible
Skin sensitization	: Classification not possible (However, 2-Aminoethanol:Category 1)
Germ cell mutagenicity	: Classification not possible
Carcinogenicity	: Classification not possible
Reproductive toxicity	: Category 2 (Butyl cellosolve:Category 2)
STOT-single exposure	: Category 1 Category 3 (Narcosis) (Butyl cellosolve:Category 1 Category 3 (Narcosis), 2-Aminoethanol:Category 1 Category 3 (Narcosis), a component:Category 3 (Respiratory tract irritation))
STOT-repeated exposure	: Category 1 (Butyl cellosolve:Category 1, 2-Aminoethanol:Category 1 Category 2)
Aspiration hazard	: Classification not possible

## 12. Ecological information

Hazardous to the aquatic environment, short-term (acute)	: Category 3 (Higher alcohol:Category 1, a component:Category 1, 2-Aminoethanol:Category 2, a component:Category 3, a component:Category 3)
Hazardous to the aquatic environment, long-term (chronic)	: Category 3 (Higher alcohol:Category 1)
Persistence and degradability	: No data available
Bioaccumulative potential	: No data available
Mobility in soil	: No data available
Hazardous to the ozone layer	: Classification not possible

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## 13. Disposal considerations

When disposing of residual waste, dispose of it in compliance with relevant laws and regulations.  
When disposing of contaminated containers and packaging, remove the contents and then dispose of them in compliance with relevant laws and regulations.

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## 14. Transport information

Any transportation practice regardless of by road, by sea, or by air must be in compliance with laws and regulations in your country or region.

### International Regulations

UN number	: UN2810
Proper shipping name	: TOXIC LIQUID, ORGANIC, N.O.S. (contains 2-Butoxyethanol)
UN classification	: 6.1 (Poison)
14.4. Packing group	: III
Marine pollutant	: Not applicable
Transport regulations	: Comply with regulations by IATA and IMDG for air transport and sea transport respectively.

<b>Special precautions in connection with transport</b>	: Make sure the container is not damaged, corroded or leaked before shipping. Make sure to prevent the product from collapsing by loading it without falling, dropping, or damage. Keep away from high temperature and direct sunlight. Top Load Only. Since it falls under the danger rules based on the Ship Safety Act, containers, signs and other necessary measures shall be taken in accordance with the provisions of the act in the case of sea transportation.
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## 15. Regulatory information

Regulatory information with regard to this product in your country or region should be examined by your own responsibility.

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## 16. Other information

Literature references	: Data by JAPAN SURFACTANT INDUSTRY ASSOCIATION National Institute of Technology and Evaluation (NITE) Japan Chemical Industry Ecology-Toxicology & Information Center (JETOC)
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[Profoam 310]

: Yamato Protec Corporation  
Reference number: SDS No.105-0  
Creation date: June, 11, 2024

in accordance with the Japanese Industrial Standard (JIS)