

Rely FX™ Safety Data Sheet (SDS)

Safety Data Sheet prepared in accordance with OSHA's Hazard Communications Standard (29 CFR 1910.1200) and the Global Harmonized System of Classification and Labeling of Chemicals (GHS)

Product name Rely FX™ NUFOAM® Synthetic Fluorine Free Foam Concentrate

1. Identification

Product Identifier

Product name Rely FX™ NUFOAM® Synthetic Fluorine Free Foam (SFFF) Extinguishing Agent (pressurized and non-pressurized).

Other means of identification

Product code Model Number: SFFF
Synonyms SFFF, Fluorine-free foam concentrate
Chemical Family No information available

Recommended use of the chemical and restrictions on use

Recommended use Fire extinguishing agent
Uses advised against C, D, & K class fires

Details of the Supplier of the Safety Data Sheet

Company Name Rely Innovations Inc.
3925 N. Hastings Way
Eau Claire, WI 54703
Contact point Consumer Service Department at 1-833-305-9499
E-mail address fxsupport@relyinc.com

Emergency Telephone Number

Emergency telephone **CHEMTREC 800-424-9300 (USA and Canada)**
Consumer Service Department at 1-800-318-2944 (Int'l)

2. Hazard Identification

This SDS covers the product listed above as sold in pressurized and non-pressurized containers. GHS classifications for both forms are listed below.

Classification (non-pressurized)

GHS Regulatory Status
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

Label Elements

29 CFR 1910.1200:

Danger



Signal Warning: DANGER

Hazard statements:

Eye Dam. 1: H318 - Causes serious eye damage.

Skin Irrit. 2: H315 - Causes skin irritation.

Classification (pressurized)
GHS Regulatory Status

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Hazard statements:

Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

Gas under pressure – Compressed gas

Label Elements

Hazard Signals:



Signal Warning: DANGER/WARNING

Hazard statements:

Eye Dam. 1: H318 - Causes serious eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.
H229 - Contents under pressure and may explode if heated.

Precautionary Statements:

P264: Wash thoroughly after use.
P280: Wear protective gloves/protective clothing/eye protection/protective footwear.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a poison center/doctor.
P332+P313: If skin irritation occurs: Get medical advice/attention. Substances that contribute to the classification Surfactant Mixture

Prevention – None

Response – None

Storage – None

Disposal – None

Hazards Not Otherwise Classified (HNOC)

Not Applicable.

3. Composition/information on Ingredients

Mixture

Chemical description: Aqueous solution of tensoactives

Components: Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

| Chemical Name | CAS # | Concentration |
|---------------------------|----------------|---------------|
| Surfactant Mixture | Non-applicable | 10 - <20% |
| 2-(2-butoxyethoxy)ethanol | 112-34-5 | 5 - <10% |

4. First aid measures

Description of first aid measures

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation: This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact: Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact: Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration: Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

Most Important Symptoms/Effects, Acute and Delayed

Acute and delayed effects are indicated in sections 2 and 11.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent dry chemical extinguishers (ABC), in accordance with the Regulation on fire protection systems.

Unsuitable Extinguishing Media

Non-applicable

Specific Hazards Arising from the Chemical

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,..)

Additional provisions

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency responders Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders Wear protective equipment. Keep unprotected persons away. See section 8.

Environmental Precautions

Environmental Precautions This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

Methods for Containment and Cleaning Up

For accidental releases in excess of reportable quantities (RQ) (Table 302.4), refer to 40 CFR 302 for detailed instructions concerning reporting requirements and notify the National Response Center (800) 424-8802. Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal, consult section 13.

7. Handling and Storage

Precautions for Safe Handling

A.- General precautions for safe use Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene Do not eat or drink during the process, washing hands afterwards

with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks It is recommended to have absorbent material available at close proximity to the product.

Conditions for safe storage, including any incompatibilities

| | |
|-------------------------------|---|
| Storage Conditions | A.- Technical measures for storage Minimum Temp.: 35 °F Maximum Temp.: 120 °F B.- General conditions for storage Avoid sources of heat, radiation, static electricity and contact with food. |
| Incompatible Materials | Non-applicable |

8. Exposure Controls/Personal Protection

Control Parameters

Substances whose occupational exposure limits have to be monitored in the workplace: There are no applicable occupational exposure limits for the substances contained in the product

Engineering controls


A. - Individual protection measures, such as personal protective equipment

As a preventative measure, it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection


The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

| Pictogram | PPE | Remarks |
|--|---------------------------------------|---|
|  Mandatory hand protection | Protective gloves against minor risks | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR) |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.



D. - Eye and face protection

| Pictogram | PPE | Remarks |
|--|---|---|
|  Mandatory face protection | Panoramic glasses against splash/projections. | Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR) |

E. - Bodily protection

| Pictogram | PPE | Remarks |
|-----------|----------------------|---|
| | Work clothing | Replace before any evidence of deterioration. |
| | Anti-slip work shoes | Replace before any evidence of deterioration. |

F. - Additional Emergency Measures

| Emergency measure | Standards | Emergency measure | Standards |
|---|---|--|--|
|  Emergency shower | ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011 |  Eyewash stations | DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011 |

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container.

40 CFR Part 59 (VOC):

V.O.C.(weight-percent): 10 % weight
 V.O.C. at 68 °F: 273.22 kg/m³ (273.22 g/L)
 Components: Not applicable (N/A)

California Air Resources Board (CARB) - VOC Regulatory:

V.O.C.(weight-percent): 10 % weight
 V.O.C. at 68 °F: 273.22 kg/m³ (273.22 g/L)

South Coast Air Quality Management District (AQMD) - VOC Regulatory:

V.O.C.(weight-percent): 10 % weight
 V.O.C. at 68 °F: 273.22 kg/m³ (273.22 g/L)

Ozone Transport Commission (OTC) Rules - VOC Regulatory:

V.O.C.(weight-percent): 10 % weight
 V.O.C. at 68 °F: 273.22 kg/m³ (273.22 g/L)

9. Physical and Chemical Properties

Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

| | |
|--------------------------|-----------------|
| Physical state at 68 °F: | Liquid |
| Appearance: | Transparent |
| Color: | Light yellow |
| Odor: | Characteristic |
| Odor threshold: | Not applicable* |

Volatility:

| | |
|--|-----------------|
| Boiling point at atmospheric pressure: | Not applicable* |
| Vapor pressure at 68 °F: | Not applicable* |
| Vapor pressure at 122 °F: | Not applicable* |
| Evaporation rate at 68 °F: | Not applicable* |

Product description:

| | |
|--|-------------------------------|
| Density at 68 °F: | 1070 - 1110 kg/m ³ |
| Relative density at 68 °F: | Not applicable* |
| Dynamic viscosity at 68 °F: | 19 cP |
| Kinematic viscosity at 68 °F: | Not applicable* |
| Kinematic viscosity at 104 °F: | Not applicable* |
| Concentration: | Not applicable* |
| pH: | Not applicable* |
| Vapor density at 68 °F: | Not applicable* |
| Partition coefficient n-octanol/water 68 °F: | Not applicable* |
| Solubility in water at 68 °F: | Not applicable* |
| Solubility properties: | Highly water-soluble |
| Decomposition temperature: | Not applicable* |
| Melting point/freezing point: | Not applicable* |

Flammability:

| | |
|----------------------------|---------------------------|
| Flash Point: | Non Flammable (>199.4 °F) |
| Flammability (solid, gas): | Not applicable* |
| Auto ignition temperature: | Not applicable* |
| Lower flammability limit: | Not applicable* |
| Upper flammability limit: | Not applicable* |

Particle characteristics:

| | |
|-----------------------------|-----------------|
| Median equivalent diameter: | Non-applicable* |
|-----------------------------|-----------------|

Other information:

Information with regard to physical hazard classes:

| | |
|--|-----------------|
| Explosive properties: | Not applicable* |
| Oxidizing properties: | Not applicable* |
| Corrosive to metals: | Not applicable* |
| Heat of combustion: | Not applicable* |
| Aerosols-total percentage (by mass) of flammable components: | Not applicable* |

Other safety characteristics:

| | |
|---------------------------|-----------------|
| Surface tension at 68 °F: | Not applicable* |
| Refraction index: | 1.392 |

*Not relevant due to the nature of the product, not providing information property of its hazards.

10. Stability and Reactivity

Chemical Stability

Chemically stable under the indicated conditions of storage, handling and use.

Reactivity

No hazardous reactions are expected because the product is stable under recommended storage conditions.

Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected. 10.4

Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|--------------------|------------------|-------------------------|----------------|----------------|
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |

Incompatible materials:

| Acids | Water | Oxidising materials | Combustible materials | Others |
|--------------------|----------------|---------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Not applicable | Not applicable | Avoid alkalis or strong bases |

Hazardous decomposition products:

Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO), carbon monoxide and other organic compounds.

11. Toxicological Information

Information on toxicological effects:

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapors for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.

- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

IARC: Not applicable (N/A)

- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.

- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not applicable

Specific toxicology information on the substances:

Not available

12. Ecological Information

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect.

Ecotoxicity (aquatic and terrestrial, where available):

Acute toxicity:

| Identification | Concentration | | Species | Genus |
|--|---------------|------------------|------------------------|------------|
| 2-(2-butoxyethoxy)ethanol CAS: 112-34-5 | LC50 | 1300 mg/L (96 h) | Lepomis macrochirus | Fish |
| | EC50 | 2850 mg/L (24 h) | Daphnia magna | Crustacean |
| | EC50 | 53 mg/L (192 h) | Microcystis aeruginosa | Algae |

Persistence and degradability:

| Degradability | | Biodegradability | |
|---------------|----------------------|------------------|-----------------------|
| BOD5 | Not applicable (N/A) | Concentration | Not applicable (N/A) |
| COD | Not applicable (N/A) | Period | 28 days |
| BOD5/COD | Not applicable (N/A) | % Biodegradable | 87.1 % (OECD TG 301F) |

Substance Specific Information:

| Identification | Degradability | | Biodegradability | |
|--|---------------|-------------|------------------|----------|
| 2-(2-butoxyethoxy)ethanol CAS: 112-34-5 | BOD5 | 0.25 g O2/g | Concentration | 100 mg/L |
| | COD | 2.08 g O2/g | Period | 28 days |
| | BOD5/COD | 0.12 | % Biodegradable | 92 % |

Bioaccumulative potential:

Substance Specific Information:

| Identification | Bioaccumulation potential | |
|--|---------------------------|------|
| 2-(2-butoxyethoxy)ethanol CAS: 112-34-5 | BCF | 0.46 |
| | Pow Log | 0.56 |
| | Potential | Low |

Mobility in Soil:

| Identification | Absorption/desorption | | Volatility | |
|--|-----------------------|----------------------|------------|-------------------------------|
| 2-(2-butoxyethoxy)ethanol CAS: 112-34-5 | Koc | 48 | Henry | 7.2E-9 Pa·m ³ /mol |
| | Conclusion | Very High | Dry soil | No |
| | Surface tension | 3.395E-2 N/m (77 °F) | Moist soil | No |

Results of PBT and vPvB assessment:

Non-applicable

Other adverse effects:

Not described

13. Disposal Considerations

Disposal methods:

IT IS THE RESPONSIBILITY OF THE WASTE GENERATOR TO EVALUATE WHETHER HIS WASTES ARE HAZARDOUS BY CHARACTERISTICS OR LISTING.

Waste management (disposal and evaluation):

Follow RCRA framework and EPA regulation for to ensure that hazardous waste is managed safely and properly. Waste should not be disposed of to drains. Remind, It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing. See section 6 for further information about Accidental release measures.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Solid Wastes - Part 239 through 282. State regulatory requirements for generators may be more stringent than those in the federal program. Be sure to check the state's policies.

Contaminated Packaging Do not reuse container.

14. Transport Information

PLEASE NOTE: THIS IS A NON-PRESSURIZED PRODUCT WHEN SOLD BY THE MANUFACTURER, AND AS SUCH, IS NOT REGULATED FOR SHIPMENT PER U.S. DOT CFR 172.101.

DOT NOT REGULATED

TDG NOT REGULATED

MEX NOT REGULATED

15. Regulatory Information

Safety, health and environmental regulations specific for the product in question:

- CALIFORNIA LABOR CODE - The Hazardous Substances List: Not applicable (N/A)
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Birth defects or other reproductive harm: Not applicable (N/A)
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Cancer: Not applicable (N/A)
- CANADA-Domestic Substances List (DSL): 2-(2-butoxyethoxy)ethanol (112-34-5)
- CANADA-Non-Domestic Substances List (NDSL): Not applicable (N/A)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantities:
2-(2-butoxyethoxy)ethanol (112-34-5) - 1 lb
- Hazardous Air Pollutants (Clean Air Act): 2-(2-butoxyethoxy)ethanol (112-34-5)
- Massachusetts RTK - Substance List: 2-(2-butoxyethoxy)ethanol (112-34-5)
- Minnesota - Hazardous substances ERTK: Not applicable (N/A)
- New Jersey Worker and Community Right-to-Know Act: 2-(2-butoxyethoxy)ethanol (112-34-5)
- New York RTK - Substance list: 2-(2-butoxyethoxy)ethanol (112-34-5)
- NTP (National Toxicology Program): Not applicable (N/A)
- OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Not applicable (N/A)
- Pennsylvania Worker and Community Right-to-Know Law: 2-(2-butoxyethoxy)ethanol (112-34-5)
- Rhode Island - Hazardous substances RTK: 2-(2-butoxyethoxy)ethanol (112-34-5)
- The Toxic Substances Control Act (TSCA) : 2-(2-butoxyethoxy)ethanol (112-34-5)
- Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372): 2-(2-butoxyethoxy)ethanol (112-34-5)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Take into consideration other applicable federal, state, and local laws and local regulations.

Legislation related to safety data sheets:

16. Other Information

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

H318: Causes serious eye damage.

H315: Causes skin irritation.

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

IARC: International Agency for Research on Cancer

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The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

End of Safety Data Sheet