

Technical Datasheet



FireRein Eco-Gel™ Concentrate

Description

Eco-Gel™ concentrate is a biobased mixture of natural polymers in a vegetable oil carrier used for the preparation of a fire suppression hydrogel. Vigorous mixing with water produces a milky white hydrogel with a viscosity between 500 and 2000 cP depending upon final concentration. The product is typically used between 1 and 6%. The product is not affected by water salinity. The final hydrogel has the ability to cling to surfaces, forming a protective barrier.

Eco-Gel Properties

Property	Typical Values
Viscosity @25°C (cPs)	1400
pH	Non-aqueous solution
Solids (% by weight)	36
Appearance	Tan liquid
Odor	Earthy
Density @25°C	1.1
Recommended Use Level	1 to 6%
Storage Stability	5 years at Room Temp

Storage

A Slight oil phase may be observed at the surface of the concentrate. This helps extend the shelf life of the product by limiting air and moisture contact. It is recommended to shake carboys intermittently to fully restore the suspension during storage. Always cycle oldest product for first use.

Hydrogel Preparation

The product should be shaken prior to use. Eco-Gel concentrate can be readily mixed with water at 1-6% concentrations using a minimum of 100ft of fire hose and standard firefighting equipment. Eco-Gel can also be mixed directly into fire suppression equipment (sprinkler

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systems or hoses) with appropriate proportioners or eductors. The hydrogel can also be generated with normal blending equipment or by mixing water and concentrate in a closed container capable of being vigorously shaken. Peak hydrogel formation time is dependent upon the duration of mixing, the degree of shear stress on the solution and the final percentage of Eco-Gel used.

Eco-Gel Concentration for Fire Classes

- Class A – 1-3%
- Exposure protection 3%
- Car fire or complex combustibles 3%
- Class B hydrocarbon and polar solvents 6%

Safety Precautions

Concentrate and hydrogel create a slippery surface if spilled or when applied. Caution should be taken to avoid slips or falls.

Please refer to the Eco-Gel Safety Data Sheet (SDS). Copies of the SDS can be obtained on the FireRein Inc. website or via your local sales representative.