

QUESTIONS ABOUT THERMO-GEL®

Q: What is Thermo-Gel® ?

A: Thermo-Gel® is a gel concentrate that when added to water, transforms water into a fire preventing and heat absorbing gel. The gel adheres to any kind of surface. Even to vertical window panes and forms a protective layer of gel that cools and protects objects from heating charring and flame impingement.

The gel can also be used to bring fires under control more quickly. Water and time savings of up to 50% are possible.

Questions related to Structure/Home protection

Q: What can be protected with Thermo-Gel®?

A: Thermo-Gel® will protect any surface including shrubs, trees, windows, cladding, cars, machinery, fuel tanks, LPG tanks, fence lines, power poles, etc

Q: Does Thermo-Gel® cause damage to my house?

A: Thermo-Gel® is an environmentally compatible, non aggressive gel, consisting of 98% water, a small portion of surfactants and the gelating agent which is a super absorbent polymer, similar to those used in disposable nappies.

Thermo-Gel® is not aggressive to paint, wood, glass, stone or concrete. Due to the high water content direct exposure to electricity should be avoided in order to reduce the risk of short circuits.



Q: How much do I need for my house?

A: 4lt of Thermo-Gel®, per 200lt of water at 2% dilution will cover 95 sq mts

Q: How much do I need to create a fire lane / containment line?

A: One 20lt container of Thermo-Gel® at 2% dilution will cover an area of approximately 465 sq mt.

At 1% dilution the same amount will cover 930 sq mt

Questions relating to Fire Fighting

Q: Can Thermo-Gel® be used to extinguish fires?

A: Thermo-Gel® is very effective in fighting "A Class" fires. It can knock down fires in minimum time with a minimum amount of water. It also minimizes the risk of rekindling, even when very critical combustibles are burning. This is especially effective during 'blacking out', to ensure no re-ignition in hours or days to come.

Q: Can Thermo-Gel® be used to extinguish liquid combustibles like petrol or diesel?

A: No, Thermo-Gel® is a "A Class" fire suppressant. It works perfectly on solids, but "B Class" pool fires cannot be fought with Thermo-gel®. It is possible however to protect fuel tanks and similar items from fire by applying a gel coating on the surface providing insulation and effectively preventing ignition.



3Q: Is it easy to clean up?

A: Yes, Thermo-Gel® can be washed off with a strong jet of water pressure. In the case of stubborn residues or large amounts of gel treatment with regular household salt will speed up the breakdown process.

Questions relating to Application Equipment

Q: How is Thermo-Gel® applied and where do I get the equipment?

A: It can be applied with the nozzle/eductator supplied with the home kit. Equipment for use with 20lt containers and commercial equipment or systems is available from Forest Systems Pty Ltd call 03 52370256 24/7 for information or e-mail on info@thermogel.com.au

Q: Can I dilute Thermo-Gel® inside the container with water?

A: No, this is not possible. Care must be taken that no water gets into the container as it will immediately form gel and block the system.

Q: Can Thermo-Gel® be added to a secondary foam tank on fire appliances?

A: Yes, it must be clean and free of water. Care must be taken that the plumbing and metering devices are free of water before it is injected.

Q: Can Thermo-Gel® be mixed with fire fighting foams?

A: Thermo-Gel® cannot be mixed with 'A Class' foam concentrates due to the high water content of the foam. This would lead to uncontrolled gelation in the reservoir before the product can be used.

Q: Can the product be used with very hard water?

A: Yes, but the percentages will have to be increased due to the loss of effectiveness with hard water. We have extensive experience proportioning Thermo-Gel in a range of situations & we can advise you on this.

Q: Does Thermo-Gel® require any special handling?

A: Thermo-Gel® is very slippery on hard surfaces - please use caution.

Q: How far can I project the Gel? Does it behave similar to foam?

A: When the same water pressure is applied the projection distance is at least equal to water. Foam cannot be projected as far as Thermo-Gel® and Thermo-Gel® has a substantially longer effective operational life than foam.



Questions relating to Storage.

Q: How long can I store Thermo-Gel®?

A: The gel is guaranteed for three years after date of purchase, (if agitated every 6 months) the product will last for 7-8 years.

Q: Can I store Thermo-Gel® in any container?

A: Some metals can be effected by the concentrate, high grade steel and aluminum are fine. Plastic materials should be plasticizer free (no Styrofoam), HD-PE and polyester resins are fine. We recommend the product be stored in it's original container.

Q: Are there any specific requirements for storage?

A: Thermo-Gel® should be stored above freezing and ideally below 40°C. It preferably should be stored out of direct UV exposure even though the totes are constructed from UV blocking plastic long term storage should be under cover. Containers must always be tightly closed.



Questions relating to the environment.

Q: What happens to a plant that is protected with Thermo-Gel©?

A: We have not observed any long term damage to plants in recent years. The gel on the foliage can cause spots on the leaves due to the tendency of the gel to absorb moisture. At a very heavy coverage over some days and under drought conditions (depending on plant type) can cause a drying effect on leaves, this effect is only temporary and the plant will recover quickly. Please refer to various international scientific studies available for your review.

Q: What happens when the gel gets in the soil?

A: The gel will only enter the top layer of the soil. There is no possibility for leaching. It is similar to the products used for soil conditioning in nurseries and erosion control.

Q: Will Thermo-Gel© persist in the environment?

A: Thermo-Gel© is a water/oil emulsion containing a polymer. The main constitution of the oil phase is a fatty acid ester of biological origin. The oil phase is readily biodegradable while the remaining polymer is expected to degrade with time. This is reflected in biodegrading studies that were carried out with similar polymers. Recent studies demonstrated that polymers of this type are biodegraded by white rot fungus in soil. The process is at a slow but constant rate. The polymers are solubilized, incorporated in the fungus mycelia and mineralized. The constituents of the polymer will enter into the natural carbon and nitrogen cycle. No toxic metabolites have been identified.



Q: What are the effects of Thermo-Gel© until it is biodegraded?

A: The polymer in Thermo-Gel© which provides the gelation effect and which shows the slowest biodegrading is very similar to products that are used for soil enhancement and erosion control. These products improve and help to recover soil by balancing the moisture content or preventing erosion after catastrophes like flooding. They are intentionally brought into the environment and are harmless.