

Technical Service Information



TSI-06-08-07

Date: January, 2007

Subject File: Electrical

Subject: Replacement of Grafo Dielectric Grease

DESCRIPTION

Electrical connections at components such as starters, alternators, batteries and electrical grounds are currently or were previously protected after assembly using Grafo dielectric grease (part number 472141C2). Grafo grease has been or will be replaced by Fluid Film, part number 2593148C1 with the intent that all locations will begin using Fluid Film as soon as possible. There will be a difference in appearance between Grafo grease which is typically dark purple to dark brown versus Fluid Film which is light amber in color.



DESCRIPTION (CONT.)



PARTS INFORMATION

Table 1

New Part Number	Old Part Number	Description
2593148C1 Fluid Film	472141C2 Grafo grease	dielectric grease

SERVICE PROCEDURE



WARNING – To avoid personal injury or death, shift transmission to neutral or park , set parking brake, and block wheels before doing diagnostic or service procedures.



WARNING – To avoid personal injury or death, remove ground cable from negative terminal of main battery before disconnecting or connecting electrical components. Always connect ground cable last.



WARNING – To prevent personal injury or death, do not spray Fluid Film on or around open flames, sparks or hot areas. Fluid Film is Extremely Flammable.

After completion of an electrical repair, re-apply fluid film or replace Grafo grease with fluid film to protect the electrical connection from the elements. If you are applying Fluid Film to an electrical connection that had Grafo grease on it, all Grafo grease needs to be cleaned from the area before Fluid Film is applied.

SERVICE PROCEDURE (CONT.)

NOTICE

The information supplied herein has been furnished by the manufacturer and/or the supplier for use with its product. International Truck and Engine Corporation reprints this information based on representations made by the Company. While users are urged to carefully follow the instructions accompanying the product, International cannot accept any responsibility for user errors, or mishaps resulting from such errors, or from any misuse of the product.



EUREKA CHEMICAL COMPANY FAQ

What effect does Fluid Film® have on the environment ?

Fluid Film® is classified as non-toxic and non-hazardous and contains less than one percent VOC content, helping to eliminate the use of ozone-depleting chemicals in the atmosphere. **Fluid Film®** contains no solvents, phenols, heavy metals, arsenic, pcb's, pc's, tcdd's or other dioxin related substances. It is manufactured using an all natural lanolin base.

If I spray Fluid Film® on a painted surface, will it harm the paint?

Fluid Film® will not harm paint. It can be sprayed directly on painted surfaces without any harmful effects.

Will Fluid Film® adversely affect plastic or rubber?

No, **Fluid Film®** has no adverse effects on plastics or synthetic rubber. On 100% natural rubber, some swelling can occur.

Can I paint over a surface treated with Fluid Film®?

Because **Fluid Film®** leaves a wet, non-drying film and imbeds itself in the pores of the metal, any surface treated with **Fluid Film®** should be wiped down with a good biodegradable cleaner before painting.

Will Fluid Film® remove rust?

Fluid Film® is not formulated to remove rust. However, if applied over existing rust, it will stop it immediately from spreading further. **Fluid Film®** will penetrate rust and rust scale to the base metal, loosening and easing in the removal process.

Will Fluid Film® work on battery terminals?

Fluid Film® is an excellent way to protect battery terminals. Because **Fluid Film®** is non-conductive, make your connections before applying. The non-drying characteristics of **Fluid Film®** will provide long term protection in this application.

Does Fluid Film® attract dirt?

Because **Fluid Film®** remains wet, it will get an initial dusting upon application, but because it contains no solvents and will not become sticky, it will not gum up or create a build up of dirt.

Is Fluid Film® Biodegradable?

No, **Fluid Film®** is not biodegradable.

Will Fluid Film® harm electrical connections?

No. **Fluid Film®** is non-conductive and will not harm electrical connections. Make sure that all connections are made before applying **Fluid Film®**.

Will Fluid Film® work in locks?

Fluid Film® works very well in locks. **Fluid Film®** will provide long term lubrication in a lock assembly. In cold weather applications, **Fluid Film®** will keep locks from freezing, and since **Fluid Film®** contains no solvent, it will not get gummy or create a build-up of dirt. Do not over-apply; a light application is all that is necessary.

I've heard that Fluid Film® will condition my work boots? Is that true?

Fluid Film® is an excellent leather conditioner, and will soften and weather proof leather work boots.

How is Fluid Film® on snow equipment?

Fluid Film® will prevent snow from sticking to snow blowers, snow shovels, snow mobiles, etc. and will also keep locks from freezing. It works in sub-zero weather conditions. Application may be required before each use.

How does Fluid Film® work on Motorcycle chains?

Fluid Film® is an all purpose chain lube due to its non-solvent application. Spray **Fluid Film®** directly on the chain, wiping off excess with a clean rag. **Fluid Film®** will migrate into all areas, providing long-lasting lubrication and protection from rust. Great on bicycle chains as well.

Can I use Fluid Film® on firearms?

Yes. Apply **Fluid Film®** to a clean dry rag, rubbing into metal surface as would be done with a polish or a wax. Will not leave fingerprints or affect bluing. The lanolin base of **Fluid Film®** will also act as a conditioner on wood stock. **Fluid Film®** will hold up in extreme conditions.

I have a gallon of Fluid Film® and want to thin it down. How can I do that?

The first recommendation is to thoroughly mix the product. **Fluid Film®** is thixotropic, and will get heavier upon sitting. Achieving room temperature with the product will help as well. If a thinner version is wanted, start by mixing a small amount of lightweight motor oil to the product until the desired consistency is reached. It is not recommended that Fluid Film be used in a pump type sprayer even after thinning. A paint sprayer or customized Sure Shot is what is recommended for proper application.

Does Fluid Film® dry out?

No. **Fluid Film®** is a lanolin based product containing no solvents. It will not evaporate or dry from the surface. **Fluid Film®** will leave a wet, non-drying film, that will provide long term corrosion protection on all metals and superior lubrication for all moving parts.

Will Fluid Film® stop grass from sticking to my lawnmower?

Wet grass will stick to almost any surface. Applying **Fluid Film®** will prevent any corrosion from occurring and ease in removal of grass build up.

Does Fluid Film® protect all metals?

Fluid Film® will protect all metals from oxidation and atmospheric corrosion, including steel, copper, lead, tin and zinc. It will stop chrome and brass from pitting and aluminum and magnesium from oxidizing.

Can you use a pump type sprayer to spray Fluid Film® in the bulk form?

No. **Fluid Film®** needs to be sprayed at 60-80 psi. For larger applications, standard airless paint spraying equipment is required. For smaller and spot spraying applications, we sell Sure Shot sprayers for this purpose complete with an adapter and tip.

What makes Fluid Film® different from the competition?

Where most products contain between seventy and ninety percent solvent, **Fluid Film®** contains none except for its propellant, meaning long lasting lubrication and protection. With no solvent, **Fluid Film®** won't evaporate or become sticky or gummy, allowing it to

migrate to other areas for lubrication or protection. With its unique lanolin base, **Fluid Film®** will actually imbed itself in the pores of metal, resisting wash off and keeping moisture and oxygen from getting to the base metal. Containing no solvent content, **Fluid Film®** lends itself to numerous applications where the comparative solvent-based products would not even be considered.

What is the bulk flash point of Fluid Film® NAS?

The bulk flash point of **Fluid Film®** NAS is 405 F.

Will Fluid Film® burn greenery when applied to trimming or cutting devices?

No. **Fluid Film®** will not burn greenery.

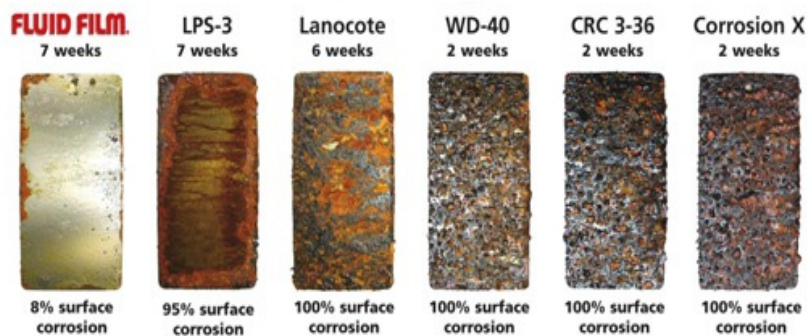
What is the Shelf life of Fluid Film®?

The Shelf life of **Fluid Film®** is indefinite. In its aerosol form, **Fluid Film®** is guaranteed for one year from the date of purchase.

Has there been any outside testing conducted to show the effectiveness of Fluid Film®?

Yes. The Department of the Navy conducted testing on maintenance products for Navy vessels and **Fluid Film®** was found to provide superior performance. In fact, according to the Naval Surface Warfare Center, Carderock Division, Philadelphia, PA where material testing took place, the difference in performance...profound...most telling result of all the testing accomplished for this project." The Naval Ammunition Depot in Pensacola Florida conducted tests to find safer products for corrosion preventatives, and **Fluid Film®** was found to supply superior protection in salt water environments. Furthermore, the test results found "outstanding results" in direct exposure to the outside environment, and concluded with these findings: "The results of the tests performed indicate a superiority in **Fluid Film®** for long term corrosion protection. The properties of **Fluid Film®** help to achieve a more environmentally safe work place." Testing was also done in an outside testing facility according to Salt Spray resistance - ASTM B117 standards where **Fluid Film®** was tested against WD-40, CRC 3-36, Corrosion X, Lanacote and LPS-3. After 7 weeks exposure **Fluid Film®** had a total surface corrosion of 8%, while the closest competitor contained 95% surface corrosion. Three of the other competitors had achieved 100% surface corrosion during the first two weeks of testing, proving once again the superior quality of **Fluid Film®**.

For further test results, look at our [testing](#) page.



[Click to Enlarge](#)

Have a question not covered? [Email us](#) and we'll add it to the list.

[to top](#)