

Maximize Field Performance

“It all comes down to the film”

COMPLETE LINE OF
**SOIL FUMIGATION
FILM** PRODUCTS

GEO SAFE® TIF®



PROUDLY MADE
IN THE USA

Why Choose Geo Safe?

Since 1982, customers have trusted GeoCHEM, Inc. to meet their specialty agricultural film needs. Here are some reasons why:

One-Stop Shop

GeoCHEM is your one-stop shop, where you can choose from virtually any size agriculture film product, from silage and grain covers to critical TIF® fumigation films. When you buy from GeoCHEM, you can count on us to provide exceptional value by manufacturing your order in-house through our ISO 9001:2008 certified management system.

Outstanding Service

At GeoCHEM we put our customers first. Our experienced sales staff will handle your call courteously and efficiently, by providing a timely price quote including availability and freight cost to your location. We also provide dedicated product specialists to work directly with you and your staff to assist with product training and project solutions.

Optimize Value

Our products are designed to maximize the total value for your operation, regardless of the application, giving you a cost-effective choice for your agricultural film needs.



Row Mulch Films

Fumigation Barrier Films

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Geo Safe® TIF® series is a unique seven-layer barrier fumigation film product line; manufactured from very flexible high-strength polyethylene with an inner core of gas impermeable EVOH barrier resin. Geo Safe® soil fumigation films bring leading TIF® film technology into a common sense approach to success.

As the industry moves away from methyl bromide used to control weeds, pests and diseases, the need for a totally impermeable film (TIF®) has become a necessity. Geo Safe® fumigation films provide proven performance results for both broadcast and row mulch applications. Extensive research has been conducted on Geo Safe® to assure growers repeatable and reliable performance. Results indicate that fumigant rates based on gallons per acre may be reduced by as much as 10% to 50% under Geo Safe®, while still maintaining efficacy and yields.

EPA (Environmental Protection Agency) buffer zones can be significantly decreased by utilizing a TIF® film to regain valuable planting acres. Geo Safe® lowers the EPA buffer zone restrictions by an impressive 60% over standard films. Utilizing Geo Safe® (TIF®) can maximize production acres significantly impacting your overall bottom line.

- Promotes maximum fumigant efficacies
- Reduces bystander exposure with lower VOC emissions
- Exceeds all current EPA and CDPR* film standards
- Distributes uniform soil fumigant throughout
- Potential for reduced fumigant rates without efficacy loss
- Designed for optimal UV resistance (maximizes longevity)
- Provides high concentration over time (CT Values)
- Built to withstand installation and collection duress
- Substantially reduces or eliminates odors



Broadcast Films

*CDPR (California Department of Pesticide Regulation)
TIF® is a registered trademark of Kuraray Co., Ltd.

Proven Performance

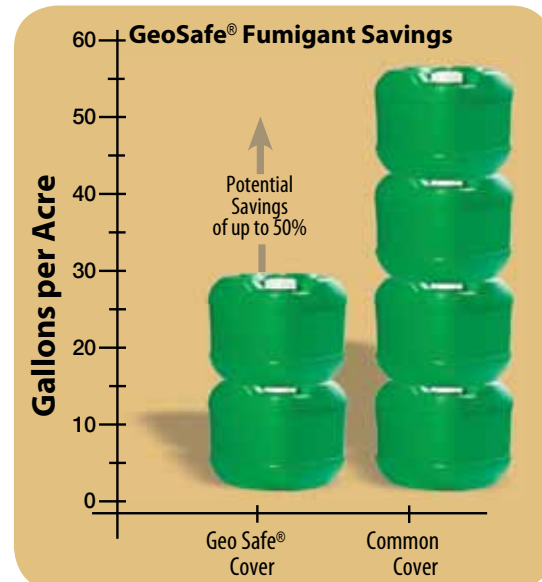
Extensive research has been conducted on GeoSafe® fumigation barrier to assure growers repeatable and reliable performance. Results indicate that fumigant rates based on gallons per acre may be reduced by as much as 10% to 50% under GeoSafe® (TIF®), while maintaining efficacy. This reduced rate also provides improved control of fungal disease and weeds when compared to VIF (very impermeable film) at a much higher application rate while still maintaining or improving yields. GeoSafe's 7-layer UV stabilized design incorporates ultimate barrier performance and longevity expectations in addition to exceptional tear, puncture and impact resistance.

TIF® Film Research

"The California strawberry industry is highly dependent on soil fumigation to control soil pests and maintain high productivity. Plastic films are used to hold fumigants in the soil at the doses needed to control pests and to prevent the loss of fumigant. Totally impermeable film (TIF) was compared to standard film (STD) for the retention of soil fumigants. 1,3-dichloropropene plus chloropicrin concentrations under TIF were 46% to 54% higher than under standard film, and higher fumigant concentrations under TIF were correlated with higher strawberry fruit yields and better weed control. The results suggest that to achieve fruit yield and weed control similar to methyl

bromide and chloropicrin, 33% less 1,3-dichloropropene plus chloropicrin is needed under TIF than standard films."

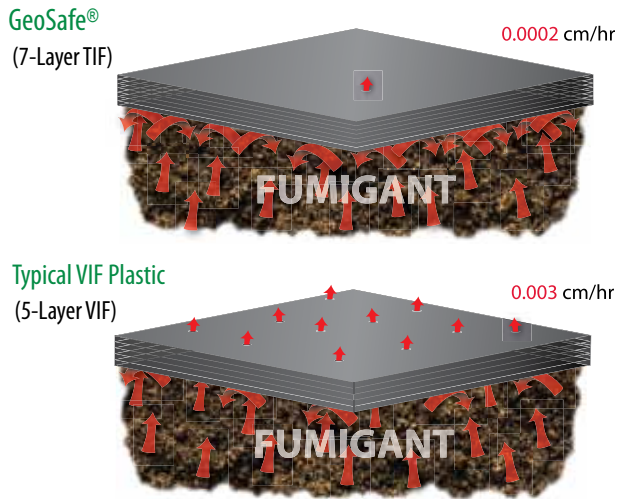
Note: Abstract from article "Totally impermeable film retains fumigants, allowing lower application rates in strawberry", authors: Steven Fennimore, UC Davis and Husein Ajwa, UC Davis, publication information: Originally published online only. California Agriculture 65(4):211-215.DOI: 10.3733/ca.E.v065n04p211. October-December 2011. Author affiliations: S.A. Fennimore is Extension Specialist and Weed Scientist, UC Davis. H.A. Ajwa is Extension Specialist and Soil Scientist, Department of Plant Sciences, UC Davis.



Importance of Lowering the MTC

The MTC (Mass Transfer Coefficient) is used to identify the fumigant retention capability of the film. Basically, the lower the MTC, the better the film efficacy. Mass Transfer Coefficient (MTC) is key in reducing buffer zone setbacks.

Mass Transfer Coefficient (MTC)

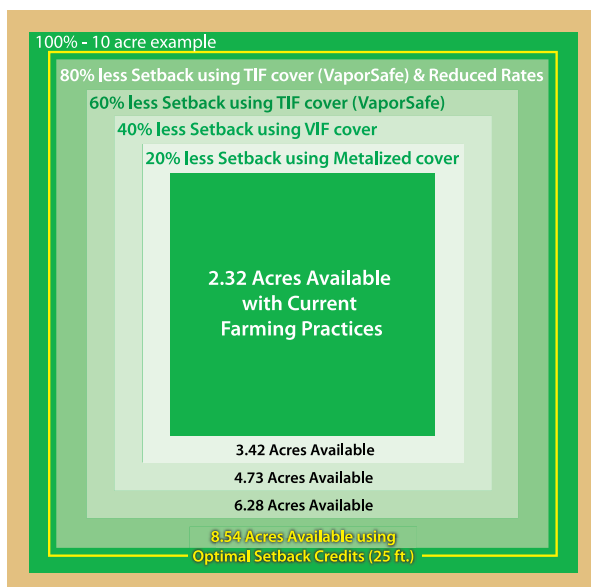


GeoSafe® retains 10 times more fumigant than the best VIF film

EPA Buffer Zone Setback Credits

Buffer zones can be significantly decreased by utilizing TIF® film to regain valuable planting acres. **GeoSafe®** (TIF®) lowers the EPA and CDPR* buffer zone restrictions by an impressive 60% over standard films with even further decreases possible using rate reductions. Some VIF films will allow only a 40% reduction in buffer zones. Standard films will provide no reduction in buffer zones. Utilizing **GeoSafe®** can maximize production acres, significantly impacting your overall bottom line.

Effect of EPA Buffer Zone Setback Credits



The Buffer Zone Diagram above is based on 10 acres with new EPA regulations applied. Using past farming practices would only allow 2.32 acres available for planting; using **GeoSafe®** 6.28 acres (60% Buffer Zone Credit) would be available when applying at full rate. Optimize your buffer zone by combining a lower application rate with **GeoSafe®**'s proven ability to maintain efficacy and yield even at reduced fumigant rates.

Value.

We work hard to provide our customers with exceptional value by producing our products to the highest internal specifications.

Custom Solutions

When you're looking for more than an everyday solution, just call us and we'll get the job done. We've custom designed polyethylene barrier films for unique applications, modified existing products, introduced new versions and colors – you name it, we've done it!

Extensive engineering and R&D efforts are focused on custom solutions to meet your requirements through our comprehensive Technology Solutions Center including state-of-the-art pilot extrusion lines as well as a modern, well-equipped accredited testing laboratory.



Silage Covers

Maximize Your Forage Value.

FeedFresh™ and FeedPro™ Silage Covers.

- Maximize Feed Freshness
- Reduce Dry Matter Loss
- Improve Your Bottom Line
- Preserve Nutritional Value



Grain Covers

Protection You Can Count On.

GrainMax™ Grain Covers.

- Durable High Strength
- Pinhole-Free Layers
- Broad Range of Sizes
- Exceptional Seam Strength
- Large One-Piece Covers

Draw on our resources.

Our Engineered Films Division has been helping customers with their agriculture film needs for over 40 years.

Our Applied Technology Division is a leader in computerized control hardware and software for precision farming.

Did you know...

Our capabilities include up to 7-layer blown sheeting, lamination/coating of reinforced materials, and large factory welded panels up to a massive 125,000 sq.ft.

We are a full service provider housing our Technology Solutions Center to streamline the product development process from conceptual design to full scale production runs.

We produce millions of pounds of polyethylene film products delivered promptly nationwide each year.

Our products are proudly Made in the USA.



For more information or to request a quote, go to www.geocheminc.com or call (800) 490-5320