



E. VERNON HILL
INCORPORATED
www.evhill.com • info@evhill.com

643 Martin Ave • Suite 3
Rohnert Park CA 94928
Phone: (707) 584-9384
Fax: (707) 584-8712

PRODUCT INFORMATION

#15-049 Smoke Sticks
#15-080 T-T Dura-Puffer™
#15-092 T-T Smoke Gun Kit
#15-093 T-T Smoke Refills; #15-110 T-T Puffer™

E. Vernon Hill, Inc. provides this information sheet to our customers as a guideline for the use and storage of the above products. Also read and understand the separate Material Safety Data Sheet (MSDS) before using or handling these products.

Read and understand all safety and use information before using or handling these products. Damage or injury may result from their improper use.

• Product Applications

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E. Vernon Hill Smoke Sticks and Smoke Guns are intended for use in air movement studies and leak detection. They are useful for tracing low velocity currents.

Specific applications include clean room leak tests, HVAC leak and flow tests, home insulation leak tests around windows and doors and home or industrial infiltration testing for radon gas.

The dense and persistent white smoke produced by these products makes them ideal for almost any air flow test.

• Product Safety

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E. Vernon Hill, Inc. has manufactured and distributed these products for over sixty years. We have developed some general guidelines for their use. Due to the nature of these products, certain safety procedures must be followed when working with or around Smoke Sticks, Smoke Guns, Smoke Refills, *T-T Puffers™* and *T-T Dura-Puffers™*.

These products use a reactive chemical, titanium tetrachloride, to produce their smoke. It is an acid and must be used with caution.

When exposed to moisture in the air, titanium tetrachloride reacts exothermically to form smoke containing small quantities of hydrogen chloride, titanium oxychloride and titanium oxides. While present in very small quantities, please be aware of any problems these chemicals may cause in your specific application.

• Storage

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These products should be stored in a cool dry place. Excess moisture may cause premature deterioration of parts. Any moisture that comes in contact with the chemical will cause the liberation of smoke as noted above.

These items should be stored in crush resistant boxes in a place safe from other items falling on top of them. Exercise due caution to prevent damage to or leakage from the products.

These products should be accessible only to people familiar with their proper use and who are familiar with all safety material. It is recommended that the products be stored in a locked cabinet or other secure place.

• Usage Guidelines

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Use only in a well ventilated place. For additional safety, wear a NIOSH approved air purifying respirator equipped with organic vapor/acid gas cartridges and high efficiency filters, and an air supplied mask or a self-contained breathing apparatus. Avoid inhaling the smoke at all times.

Avoid contact with smoke. If contact does occur, wash effected area with plenty of water. If eyes are effected, flush with water and get medical attention.

In case of spill, ventilate area well and flood spill with water. If direct liquid contact with skin occurs, immediately flush with water. If eyes are effected, flood with water and get medical attention.

Not to be taken internally. Keep out of the reach of children.

Eye protection should always be worn when using or handling these products.

• Product Disposal

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Dispose of containers and unused product in a manner that complies with local, state and federal regulations.

• Hygiene

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These products should not be stored or used around food or food products. Before eating, drinking or smoking, hands and face should be thoroughly washed.

Any food or drink exposed to these products should be discarded.

• Fire « « «

These products are not defined as flammable or combustible. However, if these products are in danger of being involved in flame, they should be removed to a safe area, to reduce possibility of cracking, breaking or leaking due to heat.

• Shipping « « «

The Tel-Tru™ products described here are shippable under the CFR 49 173.4 small quantity exception. It is the responsibility of the shipper to comply with the requirements of this section. Contact your shipping provider for additional information.

• Ecological Information « « «

Ecotoxicological Information: Experiments on titanium tetrachloride yielded the following environmental data: The 96 hr TLM: 100-1000 ppm. Other ecological information on titanium tetrachloride is not known. Chemical fate information on titanium tetrachloride is not known.

• Regulatory Information « « «

Environmental List: CAA 112: Clean Air Act Sect. 112; CERCLA: CERCLA Hazardous Substances; DSL: Domestic Substance List-Canada; MA, LIST: Massachusetts Substance List; NJ R-T-K: New Jersey R-T-K Hazard. Sub.; PA. LIST: Penn. Hazardous Substance List; SARA 302 SARA Title III, Section 302; SARA 313: SARA Title III, Section 313; TSCA: Toxic Subst. Cont, Act -listed.

If you have any questions, or need further information, please contact us.

Visit our web site at www.evhill.com for more information.

Additional Data
Titanium Tetrachloride

Approximate Quantities Used

- #15-049 Smoke Sticks 0.05 fl. oz. each
- #15-092 T-T Smoke Refills 0.15 fl. oz. each
- #15-092 is used in both the #15-080 T-T Dura-Puffer and the #15-092 T-T Smoke Gun*
- #15-110 T-T Puffer™ 0.07 fl. oz. each

Hazard Classification & Rating

WHMIS Hazard Class: D1A,D1B,D2B,E,F
Hazard Rating Source: HMIS; Health - 3; Reactivity - 2; Flammability - 0; Other -

Physical and Chemical Properties

N/D=Not Determined

- Vapor Pressure (mm Hg): 12.4 mm HG @ 77°F (25°C)
- Vapor Density (Air = 1.0): 6.6
- Evaporation Rate: N/D
- Volatile%: 100
- Boiling Point: 277.00° F 136.11° C
- Odor Threshold (ppm): N/D
- Specific Gravity: 1.726 @68°F/68°F (20°C/20°C)
- Bulk Density: N/D
- Solubility in Water: N/D Hydrolyzes
- Solubility in Other Solvents:
- Coefficient of Oil/Water: N/D
- Pour Point: N/D
- Melting Point: -13.00°F -25.00°C
- pH Factor: N/D
- Cloud Point: N/D
- Flash Point: N/D
- Flash Method: N/A
- Upper Explosion Limit: N/D
- Lower Explosion Limit: N/D
- Auto Ignition Temp.: N/D

This data sheet is provided as a guideline for the use of our products only. Also read and understand the separate Material Safety Data Sheet (MSDS.)

We believe all information given is accurate. It is offered in good faith, but without guarantee. Since conditions of product use are beyond our control, all risks of use are assumed by the user. E. Vernon Hill, Inc. disclaims responsibility for

damage or injury resulting from the improper use of these products. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license under valid patents.

Ref. Akzo MSDS 11-085111 12/18/98-008