NEVTTEOLLO			MSDS		
NEXTTEQ LLC 8406 Benjamin Rd., Suite J Tampa, Florida 33634 USA Toll-free Tel: (877) 312-2333 / (813) 249-5888			P/N 90040 Rev. A 3/07 Revision: March 20, 2007		
Toll-free Fax: (877) 312					
	Part I – Mate				
Material Name: Nextteq Irritant Smoke Tube Kit (using Gastec Irritant Smoke Tubes) (P/N 9500) Gastec Irritant Smoke Tubes (P/N 9501)					
Chemical Name: Stannic Chloride (CAS No. 7646-78-8, UN No. 1827)					
b) Air I	achloride, Tin (IV) Chloride v Indicator Tube Smoke Generator				
Formula: SnCl ₄ Chemical Family: Metal Chl	oride				
	Part II – Ingre	dients	s & Hazards		
Changle ald the second			Exposure Limi	ts	
Stannic chloride reacts with ambient humidity to liberate a white smoke consisting of hydrogen chloride (HCI) and tin compounds. The emitted smoke has a strong irritating odor.			iorganic Compounds H-TLV: TWA 2 mg/m ³ A PEL: 2 mg/m ³		
		OSH/ ACGI Listed	ogen Chloride A PEL: Ceiling 5 ppm H-TLV: STEL Ceiling 2 ppm d in the 2004 ACGIH-TLV handbook wit hich is defined as "Not classifiable as a		
	Part III –	Physic	cal Data		
<u>S</u>	tannic Chloride		Hydrogen Chlor	ide	
Appearance: Colorless liquid Boiling Point: 237.2°F Melting Point: -22.36°F Volatility: N/A Specific gravity: 2.23 g/cm ³ (at 68°F) Solubility: NA		Boilin Meltin Spec Vapo Solul	Appearance: Colorless to slightly yellow gas, irritating odor Boiling Point: -121°F Melting Point: NA Specific Gravity: N/A Vapor Pressure: 40.5 atm Solubility in Water: 37% by weight @ room temperature Vapor Density: (Air=1) = 1.268		
N/A = Not Available		N/A =	N/A = Not Available		
	Part IV – Fire	& Exp	olosive Data		
Flash Point & Method	Auto Ignition Temp. °F			Lower	U
N/A	N/A		Flammability Limits In Air Volume %	N/A	N/
	extinguishing media suitable for the material	that is he	Imina		
clothing. If there is a fire arou water on tubes that have bee Unusual Fire and Explosion	n Hazards: Fire encompassing the tubes w ure in air. Mixing with alkali metal may resu	the tubes ill emit to: ilt in an e	or cool the tubes by dousing with a larg xic fumes of chlorides. Violently reacts xplosion.	ge amount of	water.
	Part V – Health	Hazar	d Information		
Exposure Limits Information:			Irogen Chloride		
<u>Tin Inorganic Compounds</u> ACGIH-TLV: TWA 2 mg/m ³ OSHA PEL: 2 mg/m ³			OSHA PEL: Ceiling 5 ppm ACGIH-TLV: STEL Ceiling 2 ppm Listed in the 2004 ACGIH-TLV handbook with a carcinogenicity not A4, which is defined as "Not classifiable as a human carcinogen".		

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Part V – Health Hazard Information (continued)						
Toxicological Information: <u>Stannic Chloride</u> Skin Corrosion: May result in extreme irritation and burns to the skin. Irritation (Skin, Eyes): Eye contact may result in extreme irritation to the eyes. Acute Toxicity: When Inhaled, irritates nose, throat, and respiratory tract.	<u>Hydrogen Chloride</u> Acute Toxicity: When Inhaled, irritates nose, throat, and respiratory tract.					
Effects of Overexposure:						
Hydrogen chloride gas is corrosive. Prolonged inhalation of gas concentrations moderately above the ACGIH: TLV ceiling of 2 ppm can irritate nasal passages. Inhalation of higher concentrations (above 2 ppm) for short periods of time can cause choking and coughing, and produce severe irritation to the mucous membranes of the upper respiratory tract. The NIOSH-recommended IDLH level is 50 ppm. HCl can cause severe irritation and tissue burns. If deeply inhaled, pulmonary edema may occur.						
The emitted tin compound is also an irritant to eyes, skin and mucous membranes, due to its acidity.						

Emergency & First Aid Procedure:

Eyes: Immediately flush eyes with copious amounts of clean running water for at least 15 minutes, occasionally lifting the lower and upper lids to flush the area under the lids. Contact a physician.

Skin: Flush the affected areas with copioous amounts of clean running water and wash with soap for at least 15 minutes. Get medical help in cases of large area contact or if irritation persists.

Inhalation: Remove test subject to fresh air. Restore and/or support breathing as necessary. Provide oxygen therapy for persistent coughing or if breathing is difficult. Keep test subject warm and at rest. Get medical help.

Swallowed: If swallowed, get medical help immediately.

ASSISTANCE: IF THE USER IS CONFUSED ABOUT THE PROPER USE OF THE SMOKE TUBE / GENERATOR, ANY INSTRUCTIONS, WARNINGS, LABELS, OR THE MANUAL, PRIOR TO USING THIS PRODUCT THE USER SHOULD CONTACT NEXTTEQ LLC FOR ASSISTANCE AT ONE OF THE FOLLOWING: TOLL-FREE TELEPHONE NUMBER (877) 312-2333, LOCAL TELEPHONE NUMBER (813) 249-5888, TOLL FREE FAX NUMBER (877) 312-2444, LOCAL FAX NUMBER (813) 249-0188.

Part VI – Reactivity Information

Stability: SnCl₄ decomposes upon exposure to moist air or water. HCl is a stable compound. It does not undergo hazardous polymerization; however, HCl can catalyze polymerization of other compounds.

Conditions to avoid: Reacts with turpentine, alcohols, and amines causing a potential fire hazard. Incompatible materials include alkali compounds, amines, metal oxides, hydroxides, copper, brass, zinc, other metals, turpentine, and alcohols. Mixing with alkali metals may result in an explosion.

Hazardous Decomposition Products: When heated to decomposition, the smoke tubes will emit chloride fume.

Part VII – Spill, Leak & Disposal Procedures

Spill Procedure: Does not apply.

Broken Tube Cleanup: Broken glass tubes should not be picked up with bare hands.

Disposal Procedure: Soak used tubes in large volume of water and neutralize with sodium carbonate or equivalent alkaline substance. Dispose of tubes via landfill. Consult local authorities to assure compliance with all local, state, and federal law and regulations, including but not limited to EPA regulations.

Part VIII – Special Protection Information

Protective Equipment: For irritant smoke qualitative fit testing, wear respiratory protection in accordance with 29 CFR 1910.134 and 42 CFR Part 84 and good practice. Wear safety goggles to minimize eye contact and keep eyes closed during exposure to irritant smoke. Wear chemical resistant safety gloves with resistance to broken glass in accordance with NIOSH and OSHA standards and good practice.

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Part IX – Special Precautions & Comments

Dangerous To Life: Read, understand and comply with all instructions, warnings, labels, and other literature accompanying this product before attempting to use or using this product. Use this product strictly in accordance with the manufacturer's instructions, specifications, and warnings and only with the manufacturer's specified parts, components, and accessories.

Class of Users: This product is only for sale to, only for use by, and only for storage by trained, qualified, technically competent, and professional commercial, industrial, military, or government users.

Handling & Storage: Store in the original container in a cool, dry place. Protect against light, heat, moisture, and physical damage.

Shipping Information: Ship this product according to local, state, and federal laws and regulations, including, but not limited to, federal Department of Transportation regulations in DOT 49 CFR.

Other Precautions: Avoid eye and skin contact with smoke. Do not directly breathe the smoke. Avoid the buildup of smoke. Use in a well-ventilated area. Do not use under a hood or in a confined space. Do not blow smoke directly into anyone's unprotected face or eyes. Test only one person at a time. Do not blow smoke between test subjects. Immediately after using the smoke tube or being exposed to the smoke, scrub face, hands, and any area exposed to the smoke with soap and clean running water and always before eating, drinking, smoking, applying cosmetics, or inserting or removing contact lenses.

Do not use this product for respirator fit testing or a "Sensitivity Check" if any of the following conditions is present:

- a) The test subject has pre-existing respiratory, cardiovascular, bronchial, or sinus medical condition.
- b) The test subject is under a physician's care for respiratory, cardiovascular, bronchial, or sinus problems.
- c) The test subject is being treated for allergies, hypersensitivity, or asthma or has a pre-existing allergic, hypersensitivity, or other condition.
- d) The test subject is allergic to or hypersensitive to hydrogen chloride, stannic chloride, stannic oxide, stannic dioxide, tin tetrachloride, tin compounds, hydrochloric acid or metal chloride.

Part X – DISCLAIMER OF WARRANTIES

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Part XII – LIMITATION OF REMEDIES

THE PARTIES HERETO AGREE THAT BUYER'S SOLE AND EXCLUSIVE REMEDY AGAINST THE SELLER SHALL BE, AT SELLER'S OPTION, (1) REPAIR OF THE DEFECTIVE GOODS (2) REPLACEMENT OF THE DEFECTIVE GOODS OR (3) REPAYMENT OF THE PURCHASE PRICE OF THE DEFECTIVE GOODS. IF SELLER IS UNABLE TO PROVIDE ANY SELECTED REMEDY, SELLER MAY ELECT TO PROVIDE BUYER WITH ANY REMAINING EXCLUSIVE REMEDY UNTIL ALL EXCLUSIVE REMEDIES HAVE BEEN EXHAUSTED. THE NUMBER OF REMEDIES PROVIDED AND THE ORDER IN WHICH THE REMEDIES ARE PROVIDED SHALL BE DETERMINED SOLELY BY THE SELLER. THIS EXCLUSIVE REMEDY IS ONLY AVAILABLE TO THE BUYER IF BUYER RETURNS THE DEFECTIVE GOODS TO SELLER FOR INSPECTION AND SELLER'S INSPECTION DETERMINES A DEFECT EXISTS AND THAT THE DEFECT WAS NOT CAUSED IN WHOLE OR IN PART BY THE BUYER OR BY ANYONE'S USE, OPERATION, STORAGE, MAINTENANCE, REPAIR, HANDLING, OR TRANSPORTATION OF THE DEFECTIVE GOODS WHICH WAS INCONSISTENT WITH SELLER'S OR THE MANUFACTURER'S SPECIFICATIONS, INSTRUCTIONS, OR WARNINGS.