

SDS
Nextteq® Irritant
Smoke Tube Kit



Irritant Smoke Tube Kit

NEXTTEQ®
INTERNATIONAL

BETTER TECHNOLOGY. BETTER QUALITY.
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SAFETY DATA SHEET (SDS)

Part 1 Identification

Product identifier

Trade name: Nextteq® Irritant Smoke Tube Kit
using Nextteq® Irritant Smoke Tubes
(P/N NX9500-5 (5 pack))
using Nextteq® Irritant Smoke Tubes
(P/N NX9500-10 (10 pack))

CAS Number: 7646-78-8

EC number: 231-588-9

Index number: 050-001-00-5

Relevant identified uses of the substance or mixture and uses advised against

Product description

Glass tube used for irritant smoke generation, designed for Irritant Smoke Qualitative Fit Testing as specified by the U.S. Occupational Safety and Health Administration (OSHA).

Application of the substance / the mixture

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.

ASSISTANCE: IF THE USER IS CONFUSED ABOUT THE PROPER USE OF THE SMOKE TUBE / KIT, ANY INSTRUCTIONS, WARNINGS, LABELS, OR THE MANUAL, THE USER SHOULD CONTACT NEXTTEQ[®] INTERNATIONAL LLC FOR ASSISTANCE PRIOR TO USING THE PRODUCT. NEXTTEQ[®]'S TOLL-FREE NUMBER IS: (877) 312-2333; LOCAL NUMBER IS (813) 249-5888.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Nextteq[®] International LLC

8406 Benjamin Rd, Ste J

Tampa, FL 33634

877-312-2333

www.nextteq.com

Emergency telephone number: 877-312-2333

Part 2 - Hazard(s) identification



Classification of the substance or mixture

Corrosion

Causes severe skin burns and eye damage.
Harmful to aquatic life with long lasting effects.

Additional information:

Stannic Chloride reacts with ambient humidity to liberate a white smoke consisting of hydrogen chloride (HCl) and tin compounds. The emitted smoke has a strong irritating odor.

Label elements

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS05

Signal word Danger

Hazard-determining components of labeling:

Stannic Chloride

Hazard statements

Causes severe skin burns and eye damage.

Harmful to aquatic life with long lasting effects.

Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid release to the environment.

Wash thoroughly after handling.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER/doctor.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:



Health = 3
 Fire = 0
 Reactivity = 0



Health = 3
 Fire = 0
 Reactivity = 0

Part 3 - Composition/information on ingredients

Chemical characterization: Substances

CAS No. Description

7646-78-8 Stannic Chloride (<0.8 g in each Nextteq[®] Irritant Smoke Tube)

Identification number(s)

EC number: 231-588-9

Index number: 050-001-00-5

Additional information: Stannic Chloride reacts with ambient humidity to liberate a white smoke consisting of hydrogen chloride (HCl) and tin compounds. The emitted smoke has a strong irritating odor.

Part 4 - First-aid measures

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation: Supply fresh air. Consult a doctor for complaints. In case of unconsciousness, place patient securely on side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Most important symptoms and effects, both acute and delayed

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.

Indication of any immediate medical attention and special treatment needed. No further relevant information available.

Part 5 - Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

Fire encompassing the tubes will emit toxic fumes of chlorides, which violently reacts with water to generate heat. Generates smoke with moisture in air. Mixing with alkali metal may result in an explosion. **Advice for firefighters** If there is a fire around the area where tubes are stored, move the tubes or cool the tubes by dousing with a large amount of water. Do not put water on tubes that have been crushed or broken.

Protective equipment: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

Part 6 - Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions: Inform respective authorities in case of seepage into water ways or sewage systems.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (i.e., sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to Section 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Part 7 - Handling and storage

Handling:

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

Information about protection against explosions and fires:

No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Not required.

Further information about storage conditions:

Keep receptacle tightly sealed.

Specific end use(s)

No further relevant information available.

Part 8 - Exposure controls / personal protection

Additional information about design of technical systems:

No further data; see section 7.

Control parameters

Components with occupational exposure limits:

7646-78-8 Stannic Chloride

PEL Long-term value: 2 mg/m³ as Sn

REL Long-term value: 2 mg/m³ as Sn

TLV Long-term value: 2 mg/m³ as Sn

Additional information: The lists that were valid during the creation were used as basis. 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.

Exposure controls

Personal protective equipment:

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Breathing equipment: If voluntary use of respiratory protection is used, select an air purifying respirator equipped with either P100 or acid gas cartridges for protection against hydrogen chloride fumes that are generated with the use of this product.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Select glove material based on penetration times, rates of diffusion and degradation.

Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection: Tightly sealed goggles.

Part 9 - Physical and chemical properties

Information on basic physical and chemical properties

General Information

Sealed glass tube with
Stannic Chloride
adsorbed onto inert solid
media.

Appearance:

Form:

Solid

Color:

Brown gray

Odor:

Irritating sensation

Odor threshold:

Not determined.

pH-value (60 g/l) @ 20 °C (68 °F): 0.2

Change in condition

Melting point/Melting range

-33.3 °C (-28 °F)

Boiling point/Boiling range

114 °C (237 °F)

Flash point:

Not applicable.

Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	
Decomposition temperature:	Not determined.
Auto igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure @ 20 °C (68 °F):	24 hPa (18 mm Hg)
Density @ 20 °C (68 °F):	2.23 g/cm ³ (18.609 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	0.0 %
Other information	No further relevant information available.

Part 10 - Stability and reactivity

Reactivity No further relevant information available.

Chemical stability

Thermal decomposition / conditions to be avoided:

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.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid Reacts with turpentine, alcohols, and amines causing a potential fire hazard.

Incompatible materials: 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 11 - Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

7646-78-8 Stannic Chloride

	LC50/4 h	480 mg/l (Trout)
	EC50	14 mg/l (daphnia)
Oral	LD50	99 mg/kg (mouse) Intraperitoneal
Inhalative	LC50/4 h	1.35 mg/l (rat)

Primary irritant effect:

on the skin: Strong caustic effect on skin and mucous membranes.

on the eye: Corrosive effect.

Additional toxicological information: Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

Part 12 - Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information

Mobility in soil No further relevant information available.

Ecotoxical effects:

Remark: Harmful to fish

Additional ecological information: General notes:

Generally not hazardous for water.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Harmful to aquatic organisms.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

Part 13 - Disposal considerations

Waste treatment methods

Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation:

- i) Used items that no longer generate smoke do not need any special cleaning before disposal.
- ii) Used items should not be disposed of until they no longer generate smoke, or are neutralized using water and sodium carbonate (or equivalent alkaline substance).
- iii) Unused items should not be disposed of until the stannic

chloride ampoule is broken and they are either allowed to fully react until they no longer smoke, or are neutralized using water and sodium carbonate (or equivalent alkaline substance). Consult local authorities to assure compliance with all local, state, and federal law and regulations, including but not limited to EPA regulations.

Part 14 - Transport information

UN-Number

DOT, ADR, IMDG, IATA

UN1827

UN proper shipping name

DOT

Stannic Chloride, anhydrous

ADR

UN1827 Stannic Chloride,
anhydrous

IMDG, IATA

STANNIC CHLORIDE,
ANHYDROUS

Transport hazard class(es)

DOT



Limited Quantity

Class

8 Corrosive substances

Label

8

ADR



Limited Quantity

**Class
Label**

8 (C1) Corrosive substances
8

IMDG, IAT



Limited Quantity

**Class
Label**

8 Corrosive substances
8

Packing group

DOT, ADR, IMDG, IATA

II

Environmental hazards:

Marine pollutant:

No

Special precautions for user

Warning: Corrosive
substances

Danger code (Kemler):

X80

EMS Number:

F-A,S-B

Segregation groups

Acids

**Transport in bulk according
to Annex II of MARPOL73/78**

and the IBC Code

Not applicable.

Transport/Additional information:

DOT Ground Transportation – 49 CFR 173.4 small
quantity exception for net inner packings with less
than 30 grams of authorized solids each. Each

individual Irritant Smoke Tube contains <0.8 grams Stannic Chloride and this exception applies to net inner packings of less than 1 kilogram (1000 grams) of Stannic Chloride (up to 1250 individual Nextteq® Irritant Smoke Tubes, or 250 NX95015 Nextteq® Irritant Smoke Tube Boxes containing 5 tubes each or 125 NX9501-10 Nextteq® Irritant Smoke Tube boxes containing 10 tubes each).

IATA Air Transportation – IATA excepted quantity for net inner packings with less than 30 grams of Stannic Chloride each. Each individual Irritant Smoke Tube contains <0.8 grams Stannic Chloride and this exception applies to net inner packings of less than 500 grams of Stannic Chloride (up to 625 individual Nextteq® Irritant Smoke Tubes, or 125 NX9501-5 Nextteq® Irritant Smoke Tube Boxes containing 5 tubes each or 62 NX9501-10 Nextteq® Irritant Smoke Tube boxes containing 10 tubes each).

UN “Model Regulation”: UN1827, Stannic Chloride, anhydrous, 8, II

Part 15 - Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara

Section 355 (extremely hazardous substances): Substance is not listed.

Section 313 (Specific toxic chemical listings): Substance is not listed.

TSCA (Toxic Substances Control Act): Substance is listed.

Proposition 65

Chemicals known to cause cancer: Substance is not listed.

Chemicals known to cause reproductive toxicity for females: Substance is not listed.

Chemicals known to cause reproductive toxicity for males: Substance is not listed.

Chemicals known to cause developmental toxicity: Substance is not listed.

Carcinogenic categories

EPA (Environmental Protection Agency) Substance is not listed.

TLV (Threshold Limit Value established by ACGIH) Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.

GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS05

Signal word Danger

Hazard-determining components of labeling: Stannic Chloride

Hazard statements Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.

Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid release to the environment.

Wash thoroughly after handling.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do.
 Continue rinsing.

Specific treatment (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER/doctor.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations:

Substance is not listed.

State Right to Know

CAS: 7646-78-8 Stannic Chloride

RTECS: XP 8750000



Skin Corr. 1B, H314;
 Aquatic Chronic 3, H412 $\leq 2.5\%$
 Substance is not listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

Part 16 - Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

Recommended restriction of use

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 are 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 allergy, 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.

Abbreviations and acronyms:

ADR:	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ADN:	The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG:	International Maritime Code for Dangerous Goods
DOT:	US Department of Transportation
IATA:	International Air Transport Association
ACGIH:	American Conference of Governmental Industrial Hygienists
EINECS:	European Inventory of Existing Commercial Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
NFPA:	National Fire Protection Association (USA)
HMIS:	Hazardous Materials Identification System
(USA) LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent
Skin Corr. 1B:	Skin corrosion/irritation, Hazard Category 1B
Aquatic Chronic 3:	Hazardous to the aquatic environment - Chronic Hazard, Category 3



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June 2026
Nextteq Irritant Smoke Tube Kit Instruction Manual
P/N NX9505 Rev B

Nextteq Irritant Smoke Tube Kits are assembled by
Nextteq International LLC in the United States of America.

Images and drawings used in this manual are for explanatory
purposes only and may not be identical with the actual device
in their appearance, size, color, or positions.

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