Right to Know Hazardous Substance Fact Sheet

Emergency Responders Quick Reference

Common Name: **ALLYL TRICHLOROSILANE**

Synonyms: Allylsilicone Trichloride
CAS No: 107-37-9
Molecular Formula: $C_3H_5Cl_3Si$
RTK Substance No: 0047
Description: Colorless liquid with a pungent and irritating odor

HAZARD DATA

Hazard Rating

3 - Health

3 - Fire

2 ~~W~~ - Reactivity

DOT#: UN 1724 (Stabilized)

ERG Guide #: 155 (page 258)

Hazard Class: 8 (Corrosive)

Firefighting

Use dry chemical, CO_2 or dry sand to extinguish fire.

DO NOT USE WATER or FOAM on material itself.

Reignition may occur as **Allyl Trichlorosilane** is difficult to extinguish.

POISONOUS GASES ARE PRODUCED IN FIRE, including *Hydrogen Chlorides*, *Phosgene* and *Silicon Dioxide*.

CONTAINERS MAY EXPLODE IN FIRE.

Use water spray to keep fire-exposed containers cool.

DO NOT get water inside containers.

Vapors may travel to a source of ignition and flash back.

Vapor is heavier than air and may travel a distance to cause a fire or explosion far from the source.

Allyl Trichlorosilane may autopolymerize.

Reactivity

Allyl Trichlorosilane reacts with WATER, MOIST AIR or STEAM to produce toxic and corrosive *Hydrogen Chloride gas* and flammable and explosive *Hydrogen gas*.

Allyl Trichlorosilane is not compatible with ORGANIC ACIDS; OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); ALCOHOLS; AMINES; STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); AMMONIA; ALDEHYDES; KETONES; and METALS.

SPILL/LEAKS

Isolation Distance:

Small Spills - 30 meters (100 feet)
Large Spills - 180 meters (600 feet)

Cover and neutralize spill with crushed limestone, soda ash, lime or cement powder.

Keep out of sewers to prevent explosions.

PHYSICAL PROPERTIES

Odor Threshold:	Pungent
Flash Point:	95°F (35°C)
LEL:	No Information
UEL:	No Information
Vapor Density:	6.05 (air = 1)
Vapor Pressure:	10 mm Hg at 61°F (16°C)
Specific Gravity:	1.2
Water Solubility:	Reactive
Boiling Point:	241°F (116°C)

EXPOSURE LIMITS

OSHA, NIOSH and ACGIH	No occupational exposure limits established
EPA Acute Exposure Guideline Levels: (AEGLs)	AEGL1 = 0.60 ppm (8-hr) AEGL2 = 3.7 ppm (8-hr) AEGL3 = 8.7 ppm (8-hr) AEGL3 = 210 ppm (10 min)

PROTECTIVE EQUIPMENT

Gloves:	Viton® for *Organosilicon compounds*
Coveralls:	DuPont Tychem® Responder®, CSM, and TK (for heavy liquid chemicals which are toxic and corrosive)
Boots:	No Information
Respirator:	>1 ppm - Supplied Air

HEALTH EFFECTS

Eyes:	Irritation and burns
Skin:	Irritation and burns
Inhalation:	Nose, throat and lung irritation with coughing and severe shortness of breath (pulmonary edema)
Chronic:	No information

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 30 minutes. Remove contact lenses if worn. Seek medical attention immediately.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water. Seek medical attention immediately.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer to a medical facility.

Medical observation is recommended as symptoms may be delayed.