NJ Health New Jersey Department of Health

Right to Know Hazardous Substance Fact Sheet

Emergency Responders Quick Reference

Common Name: **ALLYL CHLORIDE**

Synonyms: 3-Chloropropene; 1-Chloro-2-propene
CAS No: 107-05-1
Molecular Formula: C_3H_5Cl
RTK Substance No: 0039
Description: Colorless, brown, yellow or purple liquid with a strong, unpleasant odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
3 - Health **3 - Fire** **1 - Reactivity** **DOT#:** UN 1100 **ERG Guide #:** 131 **Hazard Class:** 3 (Flammable)	FLAMMABLE LIQUID Use dry chemical, CO_2, foam or water spray as extinguishing agents. May polymerize and explode at elevated temperatures. POISONOUS GASES ARE PRODUCED IN FIRE, including *Hydrogen Chloride* and *Phosgene*. CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool. 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 Chloride** may react violently with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); ACID CATALYSTS; AMINES; IRON or ALUMINUM CHLORIDES; CHEMICALLY ACTIVE METALS (such as POTASSIUM, SODIUM, MAGNESIUM and ZINC); and SODIUM HYDROXIDE. **Allyl Chloride** may decompose in WATER or MOIST AIR to release *Hydrogen Chloride gas*. Attacks PLASTIC, RUBBER and COATINGS.

SPILL/LEAKS

Isolation Distance:

Small Spill: 60 meters (200 feet)

Large Spill: 270 meters (900 feet)

Absorb liquids in vermiculite, dry sand, earth, or activated carbon and deposit in sealed containers.

Liquid floats on water.

Harmful to aquatic life in very low concentrations.

PHYSICAL PROPERTIES

Odor Threshold:	0.47 ppm
Flash Point:	-20°F (-29°C)
LEL:	2.9%
UEL:	11.1%
Relative Vapor Density:	2.6 (air = 1)
Vapor Pressure:	295 mm Hg at 68°F (20°C)
Water Solubility:	Slightly soluble
Ionization Potential:	10.05 eV
Boiling Point:	113°F (45°C)
Molecular Weight:	76.5

EXPOSURE LIMITS

OSHA:	1 ppm, 8-hr TWA
NIOSH:	1 ppm, 10-hr TWA, 2 ppm STEL
ACGIH:	1 ppm, 8-hr TWA; 2 ppm STEL
IDLH LEVEL:	250 ppm

PROTECTIVE EQUIPMENT

Gloves:	4-H®/Silver Shield® (>4-hr breakthrough)
Coveralls:	DuPont Tychem®, CPF-4, BR and LV, Responder® and TK (>8-hr breakthrough)
Boots:	No information
Respirator:	>1 ppm - Full-facepiece APR with Organic Vapor cartridges >50 ppm - Supplied air

HEALTH EFFECTS

Eyes:	Irritation, burns leading to eye damage
Skin:	Irritation, severe burns
Acute:	Nose, throat and lung irritation with coughing and shortness of breath
	Headache, dizziness and unconsciousness
Chronic:	Limited evidence - Cancer in animals. May cause mutations
	Cough, phlegm and shortness of breath

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.