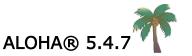
Toxic Threat Zone



Time: February 12, 2025 1804 hours ST (user specified)

Chemical Name: ETHYLENE OXIDE

Carcinogenic risk - see CAMEO Chemicals

Wind: 3.3 meters/second from w at 3 meters

THREAT ZONE:

Model Run: Heavy Gas

Red : 11 meters --- (200 ppm = AEGL-3 [60 min])

Note: Threat zone was not drawn because effects of near-field patchiness

make dispersion predictions less reliable for short distances.

Orange: 11 meters --- (45 ppm = AEGL-2 [60 min])

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SITE DATA: Location: AVENIDA DA FABRICA 298, PENA, PORTUGAL Building Air Exchanges Per Hour: 0.38 (sheltered double storied) Time: February 12, 2025 1804 hours ST (user specified) CHEMICAL DATA: Chemical Name: ETHYLENE OXIDE CAS Number: 75-21-8 Molecular Weight: 44.05 g/mol AEGL-1 (60 min): N/A AEGL-2 (60 min): 45 ppm AEGL-3 (60 min): 200 ppm IDLH: 800 ppm LEL: 30000 ppm UEL: 1000000 ppm Carcinogenic risk - see CAMEO Chemicals Ambient Boiling Point: 9.8° C Vapor Pressure at Ambient Temperature: greater than 1 atm Ambient Saturation Concentration: 1,000,000 ppm or 100.0% ATMOSPHERIC DATA: (MANUAL INPUT OF DATA) Wind: 3.3 meters/second from w at 3 meters Ground Roughness: urban or forest Cloud Cover: 5 tenths Air Temperature: 15° C Stability Class: D No Inversion Height Relative Humidity: 78% SOURCE STRENGTH: Leak from short pipe or valve in horizontal cylindrical tank Flammable chemical escaping from tank (not burning) Tank Diameter: 0.77 meters Tank Length: 2 meters Tank Volume: 930 liters Tank contains liquid Internal Temperature: 15° C Chemical Mass in Tank: 700 kilograms Tank is 85% full Circular Opening Diameter: 0.05 inches Opening is 38.5 centimeters from tank bottom Release Duration: ALOHA limited the duration to 1 hour Max Average Sustained Release Rate: 122 grams/min (averaged over a minute or more) Total Amount Released: 7.29 kilograms Note: The chemical escaped as a mixture of gas and aerosol (two phase flow). THREAT ZONE: Model Run: Heavy Gas : 11 meters --- (200 ppm = AEGL-3 [60 min]) Note: Threat zone was not drawn because effects of near-field patchiness make dispersion predictions less reliable for short distances. Orange: 11 meters --- (45 ppm = AEGL-2 [60 min]) Note: Threat zone was not drawn because effects of near-field patchiness

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