

Text Summary

ALOHA® 5.4.7



SITE DATA:

Location: TLAJOMULCO DE ZUÑIGA, MEXICO
Building Air Exchanges Per Hour: 0.48 (unsheltered single storied)
Time: July 22, 2022 1252 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROCARBONS MIXTURE
Molecular Weight: 101.20 g/mol
Default LOC-1: 1000 ppm Default LOC-2: 500 ppm
AEGL-1 (60 min): 300 ppm AEGL-2 (60 min): 500 ppm AEGL-3 (60 min): 1000 ppm
IDLH: 1000 ppm LEL: 8100 ppm UEL: 51843 ppm
Ambient Boiling Point: 31.0° C
Vapor Pressure at Ambient Temperature: 0.64 atm
Ambient Saturation Concentration: 770,997 ppm or 77.1%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 2.21 meters/second from wsw at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 21° C Stability Class: B
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Leak from hole in vertical cylindrical tank
Flammable chemical escaping from tank (not burning)
Tank Diameter: 2.4 meters Tank Length: 5.4 meters
Tank Volume: 24,429 liters
Tank contains liquid Internal Temperature: 21° C
Chemical Mass in Tank: 10,410 kilograms
Tank is 80% full
Circular Opening Diameter: 10 centimeters
Opening is 0.27 meters from tank bottom
Ground Type: Concrete
Ground Temperature: equal to ambient
Max Puddle Area: 14.7 square meters
Release Duration: ALOHA limited the duration to 1 hour
Max Average Sustained Release Rate: 12.5 kilograms/min
(averaged over a minute or more)
Total Amount Released: 603 kilograms
Note: The chemical escaped as a liquid and formed an evaporating puddle.
The puddle spread to a diameter of 4.3 meters.