

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 is burning as it escapes from tank

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 Max Puddle Area: 14.7 square meters

Max Flame Length: 0 meters

Burn Duration: ALOHA limited the duration to 1 hour

Max Burn Rate: 21.9 grams/min

Total Amount Burned: 1.31 kilograms

Note: The chemical escaped as a liquid and formed a burning puddle.

The puddle spread to a diameter of 4.3 meters.