

# Consequence Summary Report

## Workspace: Fuite\_ligne\_propane

### Study: Study

#### Summary Basis

These tables will only report global values set in the parameters. Values that are modified in the study tree will not be reported.

The report is context sensitive, and filters up to the study level. You will need to generate multiple summary reports if you have multiple studies in your workspace.

#### Discharge Results (after atmospheric expansion)

Path	Scenario	Weather	Peak Flowrate [kg/s]	Temperature [degC]	Liquid mass fraction in material [fraction]	Droplet diameter [um]	Expanded diameter [m]	Velocity [m/s]	End time of release [s]
Study\Pressure vessel_DN50	Short pipe-rupture_totale	Category 1.5/F	1,45383	-10,9946	0	0	0,0526975	317,807	3600
		Category 5/D	1,45383	-10,9946	0	0	0,0526975	317,807	3600
		Category 3/F	1,45383	-10,9946	0	0	0,0526975	317,807	3600

## Dispersion Results

### Input dispersion parameters

Core averaging time	18,75	s
Flammable averaging time	18,75	s
Toxic averaging time	600	s
Height of interest	1,5	m

### Distance downwind to defined concentrations

The reported concentration of interest is defined at the scenario

Path	Scenario	Weather	Material	Material to track	Concentration of interest [ppm]	Averaging time selected
Study\Pressure vessel_DN50	Short pipe-rupture_totale	Category 1.5/F	<b>PROPANE</b>	PROPANE	20000	User-defined
		Category 5/D	<b>PROPANE</b>	PROPANE	20000	User-defined
		Category 3/F	<b>PROPANE</b>	PROPANE	20000	User-defined

Path	Scenario	Weather	Distance to UFL [m]	Distance to LFL [m]	Distance to LFL fraction [m]
Study\Pressure vessel_DN50	Short pipe-rupture_totale	Category 1.5/F	n/a	n/a	n/a
		Category 5/D	n/a	n/a	n/a
		Category 3/F	n/a	n/a	n/a

## Jet Fire Results

### Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Flame length [m]	Distance downwind to intensity level 1 (3 kW/m <sup>2</sup> ) [m]	Distance downwind to intensity level 2 (5 kW/m <sup>2</sup> ) [m]	Distance downwind to intensity level 3 (8 kW/m <sup>2</sup> ) [m]
Study\Pressure vessel_DN50	Short pipe-rupture_total e	Category 1.5/F	14,6002	23,2799	20,9193	19,1505
		Category 5/D	16,2093	23,3259	21,4923	20,1249
		Category 3/F	15,2754	23,3139	21,1799	19,5821

## Flash Fire Results

### Distance downwind to defined concentrations

The reported LFL and LFL fraction are defined in the respective material property

Path	Scenario	Weather
Study\Pressure vessel_DN50	Short pipe-rupture_totale	Category 1.5/F
		Category 5/D
		Category 3/F

### Maximum distance to LFL fraction at any height

Path	Scenario	Weather	Max flash fire distance [m]	Height of the max flash fire distance [m]	Time [s]
Study\Pressure vessel_DN50	Short pipe-rupture_totale	Category 1.5/F	10,4299	0,975947	7,51439
		Category 5/D	8,45625	0,97546	1,91794
		Category 3/F	9,56296	0,981542	7,51438

## Explosion Results

### Explosion scenarios for worst-case maximum downwind distance to defined overpressures.

The reported overpressures are defined in the explosion parameters

Path	Scenario	Weather	Overpressure level [bar]	Maximum distance [m]	Diameter [m]
Study\Pressure vessel_DN50	Short pipe-rupture_totale	Category 1.5/F	0,2	9,61405	8,39788
			0,14	10,8293	10,8284
			0,05	18,1006	25,371
			0,02	34,4556	58,081
		Category 3/F	0,2	9,0954	8,07979
			0,14	10,2646	10,4182
			0,05	17,2605	24,41
			0,02	32,9961	55,8811

### Supplementary data for worst-case explosion scenarios

Path	Scenario	Weather	Overpressure level [bar]	Explosion flammable mass [kg]	Ignition time [s]	Ignition source [m]	Cloud centre [m]	Explosion centre [m]
Study\Pressure vessel_DN50	Short pipe-rupture_totale	Category 1.5/F	0,2	0,266544	1,91794	9	5,41511	5,41511
			0,14	0,266544	1,91794	9	5,41511	5,41511
			0,05	0,266544	1,91794	9	5,41511	5,41511
			0,02	0,266544	1,91794	9	5,41511	5,41511
		Category 3/F	0,2	0,237389	1,91794	9	5,0555	5,0555
			0,14	0,237389	1,91794	9	5,0555	5,0555
			0,05	0,237389	1,91794	9	5,0555	5,0555
			0,02	0,237389	1,91794	9	5,0555	5,0555

