

Consequence Summary Report

Workspace: Fuite_gaz_naturel

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 \\Aérien_DN80_5bar _horizontal	Short pipe- rupture_ totale	Category 5/D	4,43951	-64,5266	0	0	0,09727 83	633,723	3600
		Category 3/F	4,43951	-64,5266	0	0	0,09727 83	633,723	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	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	Distance downwind to concentration of interest [m]
Study \Aérien_DN80_5bar_horizontal	Short pipe-rupture_totale	Category 5/D	METHANE	METHANE	20000	User-defined	45,2875
		Category 3/F	METHANE	METHANE	20000	User-defined	45,3044

Path	Scenario	Weather	Distance to UFL [m]	Distance to LFL [m]	Distance to LFL fraction [m]
Study \Aérien_DN80_5bar_horizontal	Short pipe-rupture_totale	Category 5/D	3,64454	15,3608	15,3608
		Category 3/F	3,73273	17,0711	17,0711

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 ²) [m]	Distance downwind to intensity level 2 (5 kW/m ²) [m]	Distance downwind to intensity level 3 (8 kW/m ²) [m]
Study \\Aérien_DN80_5bar_horizontal	Short pipe-rupture_total	Category 5/D	22,7018	36,4674	33,0311	30,4869
		Category 3/F	22,1914	36,8853	33,1988	30,4655

Flash Fire Results

Distance downwind to defined concentrations

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

Path	Scenario	Weather	Distance downwind to LFL [m]	Distance downwind to LFL Fraction [m]
Study\Aérien_DN80_5bar_horizontal	Short pipe-rupture_totale	Category 5/D	15,3608	15,3608
		Category 3/F	17,0711	17,0711

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\Aérien_DN80_5bar_horizontal	Short pipe-rupture_totale	Category 5/D	15,3611	1,0317	7,51444
		Category 3/F	17,0698	1,05146	23,8446

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 \\Aérien_DN80_5bar_horizontal	Short pipe- rupture_totale	Category 5/D	0,2	13,4547	11,4867
			0,14	15,117	14,8111
			0,05	25,0627	34,7026
			0,02	47,4332	79,4436
		Category 3/F	0,2	14,4222	12,309
			0,14	16,2034	15,8714
			0,05	26,8612	37,187
			0,02	50,8331	85,1309

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 \\Aérien_DN80_5bar_horizontal	Short pipe- rupture_totale	Category 5/D	0,2	0,631686	1,91795	10	7,71139	7,71139
			0,14	0,631686	1,91795	10	7,71139	7,71139
			0,05	0,631686	1,91795	10	7,71139	7,71139
			0,02	0,631686	1,91795	10	7,71139	7,71139
		Category 3/F	0,2	0,777295	1,91795	10	8,26767	8,26767
			0,14	0,777295	1,91795	10	8,26767	8,26767
			0,05	0,777295	1,91795	10	8,26767	8,26767
			0,02	0,777295	1,91795	10	8,26767	8,26767

