

Consequence Summary Report

Workspace: CPA_rev_Resposta_APA

Study: 3600 s

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.

The results in this report are from the non-CFD calculations only.

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]
3600 s\01_Rotura catastrófica de tanque auxiliar	Catastrophic rupture	3.5/D		25,8978	1	10000		0,878606	
3600 s\02_Rotura de 100 m no tanque auxiliar	Leak	3.5/D	22,4003	25,8956	1	5796,83	0,0787401	6,21229	627,224
3600 s\03_Rotura de 10 mm no tanque auxiliar		3.5/D	0,224003	25,8956	1	5796,83	0,00787401	6,21229	3600
3600 s\12_Rotura catastrófica de cisterna de Ciclopentano	Catastrophic rupture	3.5/D		20,9966	1	10000		1,11835	

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	0	m

Distance downwind to defined concentrations

The reported concentration of interest is defined at the scenario

Path	Scenario	Weather	Distance to UFL [m]	Distance to LFL [m]	Distance to LFL fraction [m]
3600 s\01_Rotura catastrófica de tanque auxiliar	Catastrophic rupture	3.5/D	3,95693	9,06298	12,6252
3600 s\02_Rotura de 100 m no tanque auxiliar	Leak	3.5/D	4,15452	15,275	23,8054
3600 s\03_Rotura de 10 mm no tanque auxiliar		3.5/D	1,24058	3,99269	6,62809
3600 s\12_Rotura catastrófica de cisterna de Ciclopentano	Catastrophic rupture	3.5/D	3,96872	9,28589	13,0033

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 (7 kW/m2) [m]	Distance downwind to intensity level 2 (5 kW/m2) [m]	Distance downwind to intensity level 3 (3 kW/m2) [m]
3600 s\02_Rotura de 100 m no tanque auxiliar	Leak	3.5/D	17,9031	28,407	30,8023	35,1297
3600 s\03_Rotura de 10 mm no tanque auxiliar		3.5/D	6,55326	9,594	10,3701	11,7534

Early Pool Fire Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Pool diameter [m]	Distance downwind to intensity level 1 (7 kW/m2) [m]	Distance downwind to intensity level 2 (5 kW/m2) [m]	Distance downwind to intensity level 3 (3 kW/m2) [m]
3600 s\02_Rotura de 100 m no tanque auxiliar	Leak	3.5/D	17,0356	59,0864	67,6995	82,8042
3600 s\03_Rotura de 10 mm no tanque auxiliar		3.5/D	1,57473	3,99665	5,47449	7,63351

Late Pool Fire Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Pool diameter [m]	Distance downwind to intensity level 1 (7 kW/m2) [m]	Distance downwind to intensity level 2 (5 kW/m2) [m]	Distance downwind to intensity level 3 (3 kW/m2) [m]
3600 s\01_Rotura catastrófica de tanque auxiliar	Catastrophic rupture	3.5/D	7,19916	25,3465	28,7358	35,2336
3600 s\02_Rotura de 100 m no tanque auxiliar	Leak	3.5/D	25,4581	82,5854	94,8628	116,583
3600 s\03_Rotura de 10 mm no tanque auxiliar		3.5/D	7,19885	25,3454	28,7346	35,2321
3600 s\12_Rotura catastrófica de cisterna de Ciclopentano	Catastrophic rupture	3.5/D	8,2935	29,2027	33,2469	40,7276

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]
3600 s\01_Rotura catastrófica de tanque auxiliar	Catastrophic rupture	3.5/D	9,06298	12,6252
3600 s\02_Rotura de 100 m no tanque auxiliar	Leak	3.5/D	15,275	23,8054
3600 s\03_Rotura de 10 mm no tanque auxiliar		3.5/D	3,99269	6,62809
3600 s\12_Rotura catastrófica de cisterna de Ciclopentano	Catastrophic rupture	3.5/D	9,28589	13,0033

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]
3600 s\01_Rotura catastrófica de tanque auxiliar	Catastrophic rupture	3.5/D	12,098	0	7,30334
3600 s\02_Rotura de 100 m no tanque auxiliar	Leak	3.5/D	23,7786	0	376,482
3600 s\03_Rotura de 10 mm no tanque auxiliar		3.5/D	6,50006	0	1799,03
3600 s\12_Rotura catastrófica de cisterna de Ciclopentano	Catastrophic rupture	3.5/D	11,3407	0	3,81523

Explosion Results

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

These results are produced during the consequence run and depend on the precise setting of the scenario.

These results may be quite different to the explosion results calculated during the risk or effects modelling as these will depend on the obstructed regions defined on the map.

The reported overpressures are defined in the explosion parameters

Path	Scenario	Weather	Overpressure level [bar]	Maximum distance [m]	Diameter [m]
3600 s\01_Rotura catastrófica de tanque auxiliar	Catastrophic rupture	3.5/D	0,14	31,9882	43,9764
			0,05	63,8745	107,749
			0,03	95,3544	170,709
3600 s\02_Rotura de 100 m no tanque auxiliar	Leak		0,14	61,3835	82,7669
			0,05	121,396	202,792
			0,03	180,643	321,287
3600 s\12_Rotura catastrófica de cisterna de Ciclopentano	Catastrophic rupture		0,14	31,8685	43,7371
			0,05	63,5813	107,163
			0,03	94,8899	169,78

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]
3600 s\01_Rotura catastrófica de tanque auxiliar	Catastrophic rupture	3.5/D	0,14	2,70103	2,82561	10	3,81704	10
			0,05	2,70103	2,82561	10	3,81704	10
			0,03	2,70103	2,82561	10	3,81704	10
3600 s\02_Rotura de 100 m no tanque auxiliar	Leak		0,14	18,007	301,549	20	7,53954	20
			0,05	18,007	301,549	20	7,53954	20
			0,03	18,007	301,549	20	7,53954	20
3600 s\12_Rotura catastrófica de cisterna de Ciclopentano	Catastrophic rupture		0,14	2,65717	2,92391	10	3,9248	10
			0,05	2,65717	2,92391	10	3,9248	10
			0,03	2,65717	2,92391	10	3,9248	10