



Consequence Summary Report

Workspace: ACL_Navarra_Nov2024_8.71

Study: 3600s_NH3_Resposta_Ofício ACL

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	Temperature [degC]	Liquid mass fraction in material [fraction]	Droplet diameter [um]	Velocity [m/s]
3600s_NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	-33,4024	0,850417	86,5463	44,3249

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]
3600s_NH3_Resposta_Oficio ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	5,64242	8,51377	34,0368

Outdoor Toxic Results

Distance downwind to defined concentrations

The reported concentrations are defined in the respective material properties

Path	Scenario	Weather	Distance downwind to ERPG1 (3600 s) [m]	Distance downwind to ERPG2 (3600 s) [m]	Distance downwind to ERPG3 (3600 s) [m]	Distance downwind to STEL (900 s) [m]	Distance downwind to IDLH (1800 s) [m]
3600s_NH3_Resposta_Oficio ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	n/a	n/a	n/a	n/a	n/a

Distance downwind to defined dangerous doses

The reported dangerous doses are defined in the respective material properties

Path	Scenario	Weather	Distance downwind to dangerous toxic load [m]	Distance downwind to dangerous dose 2 [m]	Distance downwind to dangerous dose 3 [m]
3600s_NH3_Resposta_Oficio ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	244,331	128,547	22,0018

Exposure duration at defined dangerous doses

The reported dangerous doses are defined in the respective material properties

Path	Scenario	Weather	Exposure duration for dangerous toxic load [s]	Exposure duration for dangerous dose 2 [s]	Exposure duration for dangerous dose 3 [s]	Exposure duration for dangerous dose 4 [s]	Exposure duration for dangerous dose 5 [s]	Exposure duration for dangerous dose 6 [s]
3600s_NH3_Resposta_Oficio ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	286,121	215,84	102,984	n/a	n/a	n/a

Fireball Results
Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Fireball diameter [m]	Distance downwind to intensity level 1 (37,5 kW/m2) [m]	Distance downwind to intensity level 2 (12,5 kW/m2) [m]	Distance downwind to intensity level 3 (7 kW/m2) [m]	Distance downwind to intensity level 4 (5 kW/m2) [m]	Distance downwind to intensity level 5 (3 kW/m2) [m]
3600s_NH3_Resposta_Oficio ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	34,0277	22,1374	43,4258	58,8474	69,7217	89,6738

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]
3600s_NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	8,51377	34,0368

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]
3600s_NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	32,5115	0	20,6493

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]
3600s_NH3_Resposta_Oficio ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	0,3	37,4824	54,9648
			0,14	62,5109	105,022
			0,05	138,66	257,32
			0,03	213,838	407,676

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]
3600s_NH3_Resposta_Oficio ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	0,3	86,5853	0,669707	10	0,441715	10
			0,14	86,5853	0,669707	10	0,441715	10
			0,05	86,5853	0,669707	10	0,441715	10
			0,03	86,5853	0,669707	10	0,441715	10