

Modélisation de la dispersion atmosphérique des  
toxiques en cas d'incendie d'une cellule de  
stockage de pneumatiques

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion des suies**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)

Time: May 9, 2018 1435 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters

No Inversion Height

Stability Class: A (user override) Air Temperature: 20° C

Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 54,67 kilograms/sec Source Height: 282 meters

Release Duration: 60 minutes

Release Rate: 3 280 kilograms/min

Total Amount Released: 196 812 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian

Red : LOC is not exceeded --- (79 mg/(cu m))

Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion des suies**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)

Time: May 9, 2018 1437 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters

No Inversion Height

Stability Class: D

Air Temperature: 20° C

Relative Humidity: 50%

Ground Roughness: open country

Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 54,67 kilograms/sec Source Height: 113 meters

Release Duration: 60 minutes

Release Rate: 3 280 kilograms/min

Total Amount Released: 196 812 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian

Red : LOC is not exceeded --- (79 mg/(cu m))

Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion des suies**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.61 (unsheltered single storied)

Time: May 9, 2018 1438 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters

No Inversion Height

Stability Class: F (user override)      Air Temperature: 20° C

Relative Humidity: 50%                      Ground Roughness: open country

Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 54,67 kilograms/sec      Source Height: 188 meters

Release Duration: 60 minutes

Release Rate: 3 280 kilograms/min

Total Amount Released: 196 812 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian

Red : LOC is not exceeded --- (79 mg/(cu m))

Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du Monoxyde de carbone**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)  
Time: May 9, 2018 1440 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28,01 g/mol  
AEGL-1 (60 min): N/A    AEGL-2 (60 min): 83 ppm    AEGL-3 (60 min): 330 ppm  
IDLH: 1200 ppm    LEL: 125000 ppm    UEL: 742000 ppm  
Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1000000 ppm or 100,0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: A (user override)    Air Temperature: 20° C  
Relative Humidity: 50%                  Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 26,52 kilograms/sec    Source Height: 282 meters  
Release Duration: 60 minutes  
Release Rate: 1 590 kilograms/min  
Total Amount Released: 95 412 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.  
    Use both dispersion modules to investigate its potential behavior.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (3680 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (920 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du Monoxyde de carbone**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)  
Time: May 9, 2018 1441 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28,01 g/mol  
AEGL-1 (60 min): N/A    AEGL-2 (60 min): 83 ppm    AEGL-3 (60 min): 330 ppm  
IDLH: 1200 ppm    LEL: 125000 ppm    UEL: 742000 ppm  
Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1000000 ppm or 100,0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: D                      Air Temperature: 20° C  
Relative Humidity: 50%                Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 26,52 kilograms/sec    Source Height: 113 meters  
Release Duration: 60 minutes  
Release Rate: 1 590 kilograms/min  
Total Amount Released: 95 412 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.  
    Use both dispersion modules to investigate its potential behavior.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (3680 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (920 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du Monoxyde de carbone**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.61 (unsheltered single storied)  
Time: May 9, 2018 1442 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28,01 g/mol  
AEGL-1 (60 min): N/A    AEGL-2 (60 min): 83 ppm    AEGL-3 (60 min): 330 ppm  
IDLH: 1200 ppm    LEL: 125000 ppm    UEL: 742000 ppm  
Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1000000 ppm or 100,0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: F (user override)    Air Temperature: 20° C  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 26,52 kilograms/sec    Source Height: 188 meters  
Release Duration: 60 minutes  
Release Rate: 1 590 kilograms/min  
Total Amount Released: 95 412 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.  
Use both dispersion modules to investigate its potential behavior.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (3680 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (920 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du Dioxyde de carbone**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)  
Time: May 9, 2018 1444 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
PAC-1: 30000 ppm   PAC-2: 30000 ppm   PAC-3: 50000 ppm  
IDLH: 40000 ppm  
Normal Boiling Point: -unavail-  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%  
Note: Not enough chemical data to use Heavy Gas option

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: A (user override)      Air Temperature: 20° C  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 707 kilograms/sec      Source Height: 282 meters  
Release Duration: 60 minutes  
Release Rate: 42 400 kilograms/min  
Total Amount Released: 2 545 200 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (89980 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.



Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du Dioxyde de carbone**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)  
Time: May 9, 2018 1445 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
PAC-1: 30000 ppm   PAC-2: 30000 ppm   PAC-3: 50000 ppm  
IDLH: 40000 ppm  
Normal Boiling Point: -unavail-  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%  
Note: Not enough chemical data to use Heavy Gas option

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: D                      Air Temperature: 20° C  
Relative Humidity: 50%              Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 707 kilograms/sec   Source Height: 113 meters  
Release Duration: 60 minutes  
Release Rate: 42 400 kilograms/min  
Total Amount Released: 2 545 200 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (89980 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du Dioxyde de carbone**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.61 (unsheltered single storied)  
Time: May 9, 2018 1446 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
PAC-1: 30000 ppm   PAC-2: 30000 ppm   PAC-3: 50000 ppm  
IDLH: 40000 ppm  
Normal Boiling Point: -unavail-  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%  
Note: Not enough chemical data to use Heavy Gas option

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: F (user override)      Air Temperature: 20° C  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 707 kilograms/sec      Source Height: 188 meters  
Release Duration: 60 minutes  
Release Rate: 42 400 kilograms/min  
Total Amount Released: 2 545 200 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (89980 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du SO<sub>2</sub>**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)  
Time: May 9, 2018 1449 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: SULFUR DIOXIDE      Molecular Weight: 64,06 g/mol  
AEGL-1 (60 min): 0.2 ppm    AEGL-2 (60 min): 0.75 ppm    AEGL-3 (60 min): 30 ppm  
IDLH: 100 ppm  
Ambient Boiling Point: -10.3° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1000000 ppm or 100,0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: A (user override)    Air Temperature: 20° C  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 3,59 kilograms/sec    Source Height: 282 meters  
Release Duration: 60 minutes  
Release Rate: 215 kilograms/min  
Total Amount Released: 12 924 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (1885 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (211 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du SO<sub>2</sub>**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)  
Time: May 9, 2018 1451 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: SULFUR DIOXIDE      Molecular Weight: 64,06 g/mol  
AEGL-1 (60 min): 0.2 ppm    AEGL-2 (60 min): 0.75 ppm    AEGL-3 (60 min): 30 ppm  
IDLH: 100 ppm  
Ambient Boiling Point: -10.3° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1000000 ppm or 100,0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: D                      Air Temperature: 20° C  
Relative Humidity: 50%              Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 3,59 kilograms/sec    Source Height: 113 meters  
Release Duration: 60 minutes  
Release Rate: 215 kilograms/min  
Total Amount Released: 12 924 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (1885 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (211 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du SO<sub>2</sub>**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.61 (unsheltered single storied)  
Time: May 9, 2018 1452 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: SULFUR DIOXIDE      Molecular Weight: 64,06 g/mol  
AEGL-1 (60 min): 0.2 ppm    AEGL-2 (60 min): 0.75 ppm    AEGL-3 (60 min): 30 ppm  
IDLH: 100 ppm  
Ambient Boiling Point: -10.3° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1000000 ppm or 100,0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: F (user override)    Air Temperature: 20° C  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 3,59 kilograms/sec    Source Height: 188 meters  
Release Duration: 60 minutes  
Release Rate: 215 kilograms/min  
Total Amount Released: 12 924 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (1885 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (211 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du NO<sub>2</sub>**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)  
Time: May 9, 2018 1454 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: NITROGEN DIOXIDE      Molecular Weight: 46,01 g/mol  
AEGL-1 (60 min): 0.5 ppm    AEGL-2 (60 min): 12 ppm    AEGL-3 (60 min): 20 ppm  
IDLH: 20 ppm  
Ambient Boiling Point: 20.8° C  
Vapor Pressure at Ambient Temperature: 0.95 atm  
Ambient Saturation Concentration: 959,180 ppm or 95.9%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: A (user override)    Air Temperature: 20° C  
Relative Humidity: 50%                  Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 1,02 kilograms/sec    Source Height: 282 meters  
Release Duration: 60 minutes  
Release Rate: 61,2 kilograms/min  
Total Amount Released: 3 672 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (132 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (75 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du NO<sub>2</sub>**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)  
Time: May 9, 2018 1455 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: NITROGEN DIOXIDE      Molecular Weight: 46,01 g/mol  
AEGL-1 (60 min): 0.5 ppm    AEGL-2 (60 min): 12 ppm    AEGL-3 (60 min): 20 ppm  
IDLH: 20 ppm  
Ambient Boiling Point: 20.8° C  
Vapor Pressure at Ambient Temperature: 0.95 atm  
Ambient Saturation Concentration: 959,180 ppm or 95.9%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: D                      Air Temperature: 20° C  
Relative Humidity: 50%              Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 1,02 kilograms/sec      Source Height: 113 meters  
Release Duration: 60 minutes  
Release Rate: 61,2 kilograms/min  
Total Amount Released: 3 672 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (132 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (75 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du NO<sub>2</sub>**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.61 (unsheltered single storied)  
Time: May 9, 2018 1456 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: NITROGEN DIOXIDE      Molecular Weight: 46,01 g/mol  
AEGL-1 (60 min): 0.5 ppm    AEGL-2 (60 min): 12 ppm    AEGL-3 (60 min): 20 ppm  
IDLH: 20 ppm  
Ambient Boiling Point: 20.8° C  
Vapor Pressure at Ambient Temperature: 0.95 atm  
Ambient Saturation Concentration: 959,180 ppm or 95.9%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: F (user override)    Air Temperature: 20° C  
Relative Humidity: 50%                  Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 1,02 kilograms/sec    Source Height: 188 meters  
Release Duration: 60 minutes  
Release Rate: 61,2 kilograms/min  
Total Amount Released: 3 672 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (132 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (75 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC



Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du formol**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)  
Time: May 9, 2018 1458 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: FORMIC ACID      Molecular Weight: 46,03 g/mol  
ERPG-1: 3 ppm    ERPG-2: 25 ppm    ERPG-3: 250 ppm  
IDLH: 30 ppm    LEL: 120000 ppm    UEL: 380000 ppm  
Ambient Boiling Point: 100.2° C  
Vapor Pressure at Ambient Temperature: 0.044 atm  
Ambient Saturation Concentration: 44,376 ppm or 4.44%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: A (user override)    Air Temperature: 20° C  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 0,04 kilograms/sec    Source Height: 282 meters  
Release Duration: 60 minutes  
Release Rate: 2,4 kilograms/min  
Total Amount Released: 144 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (12 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du formol**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)  
Time: May 9, 2018 1500 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: FORMIC ACID                      Molecular Weight: 46,03 g/mol  
ERPG-1: 3 ppm    ERPG-2: 25 ppm    ERPG-3: 250 ppm  
IDLH: 30 ppm    LEL: 120000 ppm    UEL: 380000 ppm  
Ambient Boiling Point: 100.2° C  
Vapor Pressure at Ambient Temperature: 0.044 atm  
Ambient Saturation Concentration: 44,376 ppm or 4.44%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: D                      Air Temperature: 20° C  
Relative Humidity: 50%                      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 0,04 kilograms/sec    Source Height: 113 meters  
Release Duration: 60 minutes  
Release Rate: 2,4 kilograms/min  
Total Amount Released: 144 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (12 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion du formol**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.61 (unsheltered single storied)  
Time: May 9, 2018 1502 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: FORMIC ACID      Molecular Weight: 46,03 g/mol  
ERPG-1: 3 ppm    ERPG-2: 25 ppm    ERPG-3: 250 ppm  
IDLH: 30 ppm    LEL: 120000 ppm    UEL: 380000 ppm  
Ambient Boiling Point: 100.2° C  
Vapor Pressure at Ambient Temperature: 0.044 atm  
Ambient Saturation Concentration: 44,376 ppm or 4.44%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: F (user override)    Air Temperature: 20° C  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 0,04 kilograms/sec    Source Height: 188 meters  
Release Duration: 60 minutes  
Release Rate: 2,4 kilograms/min  
Total Amount Released: 144 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (12 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion des fumées d'incendie\_ Seuils équivalents**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE  
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)  
Time: May 9, 2018 1504 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 2 meters/sec from SW at 3 meters  
No Inversion Height  
Stability Class: A (user override)    Air Temperature: 20° C  
Relative Humidity: 50%                  Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 39 657 kilograms/sec    Source Height: 282 meters  
Release Duration: 60 minutes  
Release Rate: 2 380 000 kilograms/min  
Total Amount Released: 1,43. 10<sup>8</sup> kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (3018 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.  
Orange LOC (11346 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

**Incendie d'une cellule de stockage de pneumatiques**  
**Dispersion des fumées d'incendie\_ Seuls équivalents**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)

Time: May 9, 2018 1505 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 5 meters/sec from SW at 3 meters

No Inversion Height

Stability Class: D

Air Temperature: 20° C

Relative Humidity: 50%

Ground Roughness: open country

Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 39 657 kilograms/sec Source Height: 113 meters

Release Duration: 60 minutes

Release Rate: 2 380 000 kilograms/min

Total Amount Released: 1,43. 10<sup>8</sup> kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian

Red LOC (3018 mg/(cu m)) Max Threat Zone: LOC is not exceeded

Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Orange LOC (11346 mg/(cu m)) Max Threat Zone: LOC is not exceeded

Note: Footprint was not drawn because the ground level concentrations never exceed the LOC

Incendie d'une cellule de stockage de pneumatiques  
**Dispersion des fumées d'incendie\_ Seuils équivalents**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.61 (unsheltered single storied)

Time: May 9, 2018 1506 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

Wind: 3 meters/sec from SW at 3 meters

No Inversion Height

Stability Class: F (user override)    Air Temperature: 20° C

Relative Humidity: 50%                      Ground Roughness: open country

Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 39 657 kilograms/sec    Source Height: 188 meters

Release Duration: 60 minutes

Release Rate: 2 380 000 kilograms/min

Total Amount Released: 1,43. 10<sup>8</sup> kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian

Red LOC (3018 mg/(cu m)) Max Threat Zone: LOC is not exceeded

Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

Orange LOC (11346 mg/(cu m)) Max Threat Zone: LOC is not exceeded

Note: Footprint was not drawn because the ground level concentrations never exceed the LOC