

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

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

**SITE DATA INFORMATION:**

Location: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1357 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: 27.75 kilograms/sec      Source Height: 217 meters  
Release Duration: 60 minutes  
Release Rate: 1,670 kilograms/min  
Total Amount Released: 99,900 kilograms

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Yellow LOC (79 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  
**Dispersion des suies**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1401 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: 27.75 kilograms/sec    Source Height: 87 meters  
Release Duration: 60 minutes  
Release Rate: 1,670 kilograms/min  
Total Amount Released: 99,900 kilograms

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Yellow LOC (79 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  
**Dispersion des suies**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1404 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: 15° C  
Relative Humidity: 50%                    Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 27.75 kilograms/sec    Source Height: 144 meters  
Release Duration: 60 minutes  
Release Rate: 1,670 kilograms/min  
Total Amount Released: 99,900 kilograms

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Yellow LOC (79 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  
**Dispersion du Monoxyde de carbone**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1408 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28.01 g/mol  
ERPG-3: 500 ppm    ERPG-2: 350 ppm    ERPG-1: 200 ppm  
IDLH: 1200 ppm  
Normal Boiling Point: -191.5° C      Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 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: 13.45 kilograms/sec    Source Height: 217 meters  
Release Duration: 60 minutes  
Release Rate: 807 kilograms/min  
Total Amount Released: 48,420 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:**

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  
**Dispersion du Monoxyde de carbone**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1409 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28.01 g/mol  
ERPG-3: 500 ppm    ERPG-2: 350 ppm    ERPG-1: 200 ppm  
IDLH: 1200 ppm  
Normal Boiling Point: -191.5° C      Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 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: 13.45 kilograms/sec    Source Height: 87 meters  
Release Duration: 60 minutes  
Release Rate: 807 kilograms/min  
Total Amount Released: 48,420 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:**

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  
**Dispersion du Monoxyde de carbone**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1410 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28.01 g/mol  
ERPG-3: 500 ppm    ERPG-2: 350 ppm    ERPG-1: 200 ppm  
IDLH: 1200 ppm  
Normal Boiling Point: -191.5° C      Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 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: 15° C  
Relative Humidity: 50%      Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 13.45 kilograms/sec    Source Height: 144 meters  
Release Duration: 60 minutes  
Release Rate: 807 kilograms/min  
Total Amount Released: 48,420 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:**

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**  
**Dispersion du Dioxyde de carbone**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1413 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
TEEL-3: 40000 ppm   TEEL-2: 30000 ppm   TEEL-1: 30000 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: 358.95 kilograms/sec      Source Height: 217 meters  
Release Duration: 60 minutes  
Release Rate: 21,500 kilograms/min  
Total Amount Released: 1,292,220 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  
**Dispersion du Dioxyde de carbone**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1414 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
TEEL-3: 40000 ppm    TEEL-2: 30000 ppm    TEEL-1: 30000 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: 358.95 kilograms/sec    Source Height: 87 meters  
Release Duration: 60 minutes  
Release Rate: 21,500 kilograms/min  
Total Amount Released: 1,292,220 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  
**Dispersion du Dioxyde de carbone**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1415 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
TEEL-3: 40000 ppm    TEEL-2: 30000 ppm    TEEL-1: 30000 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: 15° C  
Relative Humidity: 50%                  Ground Roughness: open country  
Cloud Cover: 5 tenths

**SOURCE STRENGTH INFORMATION:**

Direct Source: 358.95 kilograms/sec    Source Height: 144 meters  
Release Duration: 60 minutes  
Release Rate: 21,500 kilograms/min  
Total Amount Released: 1,292,220 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1418 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: SULFUR DIOXIDE      Molecular Weight: 64.06 g/mol  
ERPG-3: 15 ppm    ERPG-2: 3 ppm    ERPG-1: 0.3 ppm  
IDLH: 100 ppm  
Carcinogenic risk - see CAMEO  
Normal Boiling Point: -10.0° C      Ambient Boiling Point: -10.2° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 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: 1.82 kilograms/sec    Source Height: 217 meters  
Release Duration: 60 minutes  
Release Rate: 109 kilograms/min  
Total Amount Released: 6,552 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1420 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: SULFUR DIOXIDE      Molecular Weight: 64.06 g/mol  
ERPG-3: 15 ppm    ERPG-2: 3 ppm    ERPG-1: 0.3 ppm  
IDLH: 100 ppm  
Carcinogenic risk - see CAMEO  
Normal Boiling Point: -10.0° C      Ambient Boiling Point: -10.2° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 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: 1.82 kilograms/sec      Source Height: 87 meters  
Release Duration: 60 minutes  
Release Rate: 109 kilograms/min  
Total Amount Released: 6,552 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1421 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: SULFUR DIOXIDE      Molecular Weight: 64.06 g/mol  
ERPG-3: 15 ppm    ERPG-2: 3 ppm    ERPG-1: 0.3 ppm  
IDLH: 100 ppm  
Carcinogenic risk - see CAMEO  
Normal Boiling Point: -10.0° C      Ambient Boiling Point: -10.2° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 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: 1.82 kilograms/sec    Source Height: 144 meters  
Release Duration: 60 minutes  
Release Rate: 109 kilograms/min  
Total Amount Released: 6,552 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1424 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: NITROGEN DIOXIDE      Molecular Weight: 46.01 g/mol  
TEEL-3: 30 ppm    TEEL-2: 15 ppm    TEEL-1: 2 ppm  
IDLH: 20 ppm  
Normal Boiling Point: 21.0° C      Ambient Boiling Point: 20.9° C  
Vapor Pressure at Ambient Temperature: 0.95 atm  
Ambient Saturation Concentration: 958,041 ppm or 95.8%

**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: 0.52 kilograms/sec    Source Height: 217 meters  
Release Duration: 60 minutes  
Release Rate: 31.2 kilograms/min  
Total Amount Released: 1,872 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1425 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: NITROGEN DIOXIDE      Molecular Weight: 46.01 g/mol  
TEEL-3: 30 ppm    TEEL-2: 15 ppm    TEEL-1: 2 ppm  
IDLH: 20 ppm  
Normal Boiling Point: 21.0° C      Ambient Boiling Point: 20.9° C  
Vapor Pressure at Ambient Temperature: 0.95 atm  
Ambient Saturation Concentration: 958,041 ppm or 95.8%

**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: 0.52 kilograms/sec      Source Height: 87 meters  
Release Duration: 60 minutes  
Release Rate: 31.2 kilograms/min  
Total Amount Released: 1,872 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1426 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: NITROGEN DIOXIDE      Molecular Weight: 46.01 g/mol  
TEEL-3: 30 ppm    TEEL-2: 15 ppm    TEEL-1: 2 ppm  
IDLH: 20 ppm  
Normal Boiling Point: 21.0° C      Ambient Boiling Point: 20.9° C  
Vapor Pressure at Ambient Temperature: 0.95 atm  
Ambient Saturation Concentration: 958,041 ppm or 95.8%

**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: 0.52 kilograms/sec    Source Height: 144 meters  
Release Duration: 60 minutes  
Release Rate: 31.2 kilograms/min  
Total Amount Released: 1,872 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1430 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: FORMIC ACID      Molecular Weight: 46.03 g/mol  
TEEL-3: 30 ppm    TEEL-2: 10 ppm    TEEL-1: 10 ppm  
IDLH: 30 ppmf  
Normal Boiling Point: 100.6° C      Ambient Boiling Point: 100.3° C  
Vapor Pressure at Ambient Temperature: 0.044 atm  
Ambient Saturation Concentration: 44,317 ppm or 4.43%

**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: 0.02 kilograms/sec    Source Height: 217 meters  
Release Duration: 60 minutes  
Release Rate: 1.2 kilograms/min  
Total Amount Released: 72.0 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1432 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: FORMIC ACID                      Molecular Weight: 46.03 g/mol  
TEEL-3: 30 ppm    TEEL-2: 10 ppm    TEEL-1: 10 ppm  
IDLH: 30 ppm  
Normal Boiling Point: 100.6° C                      Ambient Boiling Point: 100.3° C  
Vapor Pressure at Ambient Temperature: 0.044 atm  
Ambient Saturation Concentration: 44,317 ppm or 4.43%

**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: 0.02 kilograms/sec    Source Height: 87 meters  
Release Duration: 60 minutes  
Release Rate: 1.2 kilograms/min  
Total Amount Released: 72.0 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1433 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: FORMIC ACID      Molecular Weight: 46.03 g/mol  
TEEL-3: 30 ppm    TEEL-2: 10 ppm    TEEL-1: 10 ppm  
IDLH: 30 ppm  
Normal Boiling Point: 100.6° C      Ambient Boiling Point: 100.3° C  
Vapor Pressure at Ambient Temperature: 0.044 atm  
Ambient Saturation Concentration: 44,317 ppm or 4.43%

**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: 0.02 kilograms/sec    Source Height: 144 meters  
Release Duration: 60 minutes  
Release Rate: 1.2 kilograms/min  
Total Amount Released: 72.0 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1434 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: 414.50 kilograms/sec    Source Height: 217 meters  
Release Duration: 60 minutes  
Release Rate: 24,900 kilograms/min  
Total Amount Released: 1,492,200 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31018 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1435 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: 414.50 kilograms/sec    Source Height: 87 meters  
Release Duration: 60 minutes  
Release Rate: 24,900 kilograms/min  
Total Amount Released: 1,492,200 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31018 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: HENIN BEAUMONT, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: December 19, 2017 1436 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: 414.50 kilograms/sec    Source Height: 144 meters  
Release Duration: 60 minutes  
Release Rate: 24,900 kilograms/min  
Total Amount Released: 1,492,200 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31018 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