

Fire and explosion hazard
ATEX 137 1999/92/EG und ATEX 95 2014/34/EU

**Danger assessment and determination of explosion protection zone for
the test space as well as the installation site**

ATEX-Check list

Customer: _____

Project/Order: _____

Compiled by: _____ Date: _____ Signature: _____

General conditions

1. What kind of flammable substances is it all about?

Substance: _____

Flash point ¹⁾: _____

¹⁾ Acceptable practice at the determination of flash point: Closed cup according to ISO 2719

Ignition temperature: _____

Safety data sheet available? yes (please add it) no

2. Nature of testing

testing product limits up to failure or destruction

long-term test at normal operation conditions for the product

Please brief description of test, if possible with schematic diagram, on page 6 under any other business.

Test space

3. What is the amount of flammable substances inside the test space?

Text:

QM - Identifikation		Vom Nutzer auszufüllen			
FB 5194	Revision: 1	Erstellt am: 19.01.2017	Seite 1 von 6	Datei: FB5194_wut_en	Ersteller: J.Urban

4. On what terms are flammable substances being introduced into the test space atmosphere? *Please answer under 4.1 to 4.6 (4.1 to 4.4 to be available)*

4.1 Under normal operation

- applicable → the released amount is approx. _____ g *(go on with 4.5)*
- not applicable *(go on with 4.2)*

4.2 In case of an unpredictable fault due to cracking components

- applicable
 - often
 - occasional
 - uncommon
 - can be excluded due to adequate component design
- the released amount is approx. _____ g
 - high (lower explosion limit will be greatly exceeded)
 - moderate (will be close to lower explosion limit)
 - low (lower explosion limit certainly will not be exceeded)*(go on with 4.5)*
- not applicable *(go on with 4.3)*

4.3 By a leakage or destruction of specimen in the event of a predictable fault or during destruction test

- applicable
 - due to leaks on gaskets or screw joints
 - due to limit load as part of the test
- Prevalence
 - often
 - occasional
 - uncommon
- Released amount
 - often (lower explosion limit will be greatly exceeded)
 - occasional (will be close to lower explosion limit)
 - low (lower explosion limit certainly will not be exceeded)*(go on with 4.5)*
- not applicable *(go on with 4.4)*

QM - Identifikation		Vom Nutzer auszufüllen			
FB 5194	Revision: 1	Erstellt am: 19.01.2017	Seite 2 von 6	Datei: FB5194_wut_en	Ersteller: J.Urban

4.4 Due to diffusion out of specimen

- applicable → diffusion rate _____ g/h (*go on with 4.5*)
 not applicable (*go on with 4.5*)

4.5 At changing specimen

- applicable
 the released amount is approx. _____ g
 very low (lower explosion limit certainly will not be exceeded)
 high (lower explosion limit will be greatly exceeded)
 not applicable

4.6 Are there flammable substances exposed inside the test space?

(Possible only for storage below flash point and without pressure or at vaporisation rate below lower explosion limit)

- applicable
 not applicable

5. Is the flammable substance under pressure?

- applicable → _____ bar overpressure
 permanent
 occasional
 not applicable

6. At what temperatures is the test conducted?

Text:

QM - Identifikation		Vom Nutzer auszufüllen			
FB 5194	Revision: 1	Erstellt am: 19.01.2017	Seite 3 von 6	Datei: FB5194_wut_en	Ersteller: J.Urban

7. Does the specimen or specimen holder contain an own potential ignition source?

- applicable → what kind of component is included?
 - electronic components (ignition source due to a spark or a hot surface)
 - own ignition source available during normal operation
 - own ignition source only available in the event of a fault
 - mechanical components (ignition source due to a spark or a hot surface)
 - own ignition source available during normal operation
 - own ignition source only available in the event of a fault
- explosion protected acc. to Ex II G
 - category 1 or 2 or 3
- not applicable

8. Classification into zones by the system user

Test space classification based on information of point 1 to 7:

- ZONE 0**
(chamber is not viable)
permanent, long-term or frequent presence of an explosive atmosphere
- ZONE 1**
occasional presence of an explosive atmosphere
- ZONE 2**
usually an explosive atmosphere does not exist, but however then only seldom and for a short period
- None ZONE**
an explosive atmosphere does not exist.
The design of the specimen and accordingly the specimen holder is safe enough so that flammable substances cannot escape as well an explosive atmosphere cannot arise during the test.

QM - Identifikation		Vom Nutzer auszufüllen			
FB 5194	Revision: 1	Erstellt am: 19.01.2017	Seite 4 von 6	Datei: FB5194_wut_en	Ersteller: J.Urban

Installation Site

9. Is the specimen supplied with flammable substances by an external system?

- applicable
- not applicable

10. Is the formation of explosive mixtures at the installation site expected?

E. g. by adjacent supply systems

- applicable → ZONE 2 (*ZONE 0+1 not possible*)
- not applicable

11. Where will the system be installed?

- in a special explosion-proved room ZONE 2 (*installation not possible in ZONE 0 and 1*)
 - ZONE 2 up to 1m above the floor
 - ZONE 2 in the entire room

with the following protective measures:

(text, respectively please brief description on page 6 under any other business)

- in a special protective room in which the creation of explosive zones is avoided by a sufficient aeration system (monitored and explosion-proved)
- in a normal laboratory with only limited access by application trained users
- in a normal laboratory with unrestricted access
- description of installation site:
(text, respectively please brief description on page 6 under any other business)

QM - Identifikation		Vom Nutzer auszufüllen			
FB 5194	Revision: 1	Erstellt am: 19.01.2017	Seite 5 von 6	Datei: FB5194_wut_en	Ersteller: J.Urban

Any other business

12. Description/schematic diagram/remarks

QM - Identifikation		Vom Nutzer auszufüllen			
FB 5194	Revision: 1	Erstellt am: 19.01.2017	Seite 6 von 6	Datei: FB5194_wut_en	Ersteller: J.Urban