

<b>FORM 1</b>
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## RISK CLASSIFICATION

- (1) Risk Classification is mandatory for all flammable gas systems covered by the CERN Flammable Gas Safety Code.

The Risk Classification depends principally on the amount of flammable gas in the system and covers four Risk Classes.

Risk Class 0 : the use of non-flammable mixtures

Risk Class 1 : risk of small local flash fire or explosion

Risk Class 2 : risk of local fire or explosion

Risk Class 3 : risk of general fire or explosion

- (2) System to be classified for risk :-

Experiment or Group :

System : .....

Location of system :.

- (3) Quantities of flammable gas involved.

Annex 1 of the CERN Flammable Gas Safety Manual gives the hydrogen equivalent coefficients for the most commonly used gases, e.g. for methane it is 0.4 which means that 1 kg of methane corresponds to 0.4 kg of hydrogen.

The System indicated in (2) above contains the following quantities of flammable gas (total quantities within its Flammable Gas Zone).

Type of Gas	Mass kg	H <sub>2</sub> Equivalent Coefficient	H <sub>2</sub> Equivalent Mass kg
Totals	kg		Q <sub>tot</sub> ' = kg

## (4) Classification

- |     |   |  |
|-----|---|--|
| (a) | If $Q_{\text{tot}}' = 0$                              | Risk Class 0   |
| (b) | If $0 < Q_{\text{tot}}' < 0.4 \text{ kg}$             | Risk Class 1   |
| (c) | If $0.4 \text{ kg} < Q_{\text{tot}}' < 40 \text{ kg}$ | Risk Class 2   |
| (d) | If $Q_{\text{tot}}' > 40 \text{ kg}$                  | Risk Class 3, unless it is a storage area which may be treated as Risk Class 2 if its location and construction are appropriate. |

## (5) Conclusion of the FGSO

This system is classified as Risk Class .....

## (6) The present Risk Classification was carried out on ..... (date)

by	Name	Signature
GLIMOS/Group Leader	.....	.....
FGSO	.....	.....
Representative of TIS Div.	.....	.....
TSO	.....	.....