




Safety Form C-2-0-2

CLASSIFICATION OF HAZARDOUS AREAS

Location: 888-R28 (EHN2)	Department: PH	
Plant/process description: Gas conditioning for use in the COMPASS particle detectors: - 1 rack: Micromegas: 10% C ₂ H ₆ (+Ne 85%, CF ₄ 5%) DCs: 45% C ₂ H ₆ (+Ar 45%, CF ₄ 10%) - 1 rack: RICH MWPC: CH ₄ 100% Muon Wall: CH ₄ 25% (+Ar 75%) - 1 rack with primary patch panels: Ethane, Methane		
Operating temperature and pressure: (specify) room temperature, atmospheric pressure		
Reference drawing (showing extent of zones): https://edms.cern.ch/document/1214926		
Safety data sheet(s) attached: <input checked="" type="checkbox"/>		
Minimum Gas Group requirement¹: (specify) IIA		
Minimum Temperature Class requirement²: (specify) T1		
INFORMATION ON SOURCE OF RELEASE REFERRING TO GUIDELINE C-2-0-3 Please fill in the table on next page		
TRACEABILITY		
Reference No.: (give a ref. No. for this classification) version 2	EDMS No.: 1214926	
Classification made by (name): H. Wilkens	Signature: 	Date: 26/09/2014
Distribution list: (Organic Unit, FGSO, HSE Unit, DSO, TSO)		

¹ Gas Group to be used for the selection of equipment

² Temperature Class to be used for the selection of equipment



HSE

Occupational Health & Safety
and Environmental Protection Unit

Source of release	Grade of release (Continuous/ Primary/ Secondary)	Flammable Substance					Ventilation			Hazardous Area		Notes
		State ³	FP ⁴ (°C)	Gas or Vapour density ⁵	AT ⁶ (°C)	LEL, UEL (vol. %)	Type ⁷	Degree ⁸	Avail. ⁹	ATEX Zone Type ¹⁰	ATEX Zone Extent ¹¹	
Methane conditioning for RICH, MW2	S	G	N.A.	<air	537	5, 15%	A	M	F	2	Rack	
Ethane conditioning for Micromegas, DCs	S	G	N.A.	=air	515	3, 16%	A	M	F	2	rack	
Primary patch panels (Methane & Ethane)	S	G	as above	as above	as above	as above	A	M	F	2	rack	Methane / Ethane

³ G – Gas; L – Liquid; LG – Liquefied gas.

⁴ Give the Flash Point (FP) of the flammable liquid, if applicable.

COMPASS Gas Mixing Zone 888 R-028

- flammable gas: arrival
- inert gas: arrival
- flammable gas: mixing
- inert gas: mixing

- 946 gas detectors (top/bottom)
- inert gas: cathode storage
- control: PLCs etc

