
**Fuel cell road vehicles — Safety
specifications —**

**Part 2:
Protection against hydrogen hazards for
vehicles fuelled with compressed
hydrogen**

*Véhicules routiers alimentés par pile à combustible — Spécifications de
sécurité —*

*Partie 2: Protection contre les dangers de l'hydrogène pour les
véhicules utilisant de l'hydrogène comprimé*



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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 23273-2 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 21, *Electrically propelled road vehicles*.

ISO 23273 consists of the following parts under the general title *Fuel cell road vehicles — Safety specifications*:

- *Part 1: Vehicle functional safety*
- *Part 2: Protection against hydrogen hazards for vehicles fuelled with compressed hydrogen*
- *Part 3: Protection of persons against electric shock*

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Fuel cell road vehicles — Safety specifications —

Part 2:

Protection against hydrogen hazards for vehicles fuelled with compressed hydrogen

1 Scope

This part of ISO 23273 specifies the essential requirements for fuel cell vehicles (FCV) with respect to the protection of persons and the environment inside and outside the vehicle against hydrogen related hazards.

It applies only to such FCV where compressed hydrogen is used as fuel for the fuel cell system.

This part of ISO 23273 does not apply to manufacturing, maintenance and repair.

The requirements of this part of ISO 23273 address both normal operating (fault free) and single fault conditions of the vehicles.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 17268, *Compressed hydrogen surface vehicle refuelling connection devices*

ISO 23273-1, *Fuel cell road vehicles — Safety specifications — Part 1: Vehicle functional safety*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

air processing system

system that processes (i.e. that filters, meters, conditions and pressurizes) the incoming air for the fuel cell system

3.2

contaminant

substances within raw fuel, such as sulphur, that, at or above a specified concentration level, may poison reaction catalysts

3.3

electric chassis

conductive mechanical structure of the vehicle including all associated electric and electronic components, whose parts are electrically connected and whose potential is taken as reference