

**Pre-normative REsearch for Safe use of
Liquid Hydrogen (PRESLHY)**

**Fuel Cells and Hydrogen**

**Joint Undertaking (FCH JU)**

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# Publishable summary

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# Key words

Liquid hydrogen, QRA, accumulation, dispersion, fire, explosion, BLEVE

# Abbreviations

ach Air changes per hour

barg Shorthand for gauge pressure in bar

BBD Building Burning Distance

BLEVE Boiling Liquid Expanding Vapour Explosion

CFD Computational Fluid Dynamics

DDT Deflagration to Detonation Transition

HAZID Hazard Identification

GH2 Gaseous Hydrogen

LFL Lower Flammable Limit

LH2 Liquefied Hydrogen

LNG Liquefied Natural Gas

LOC Loss of containment

MR Mixed refrigerant

RPT Rapid phase transition

RTA Road traffic accident

QRA Quantitative Risk Assessment

QRM Qualitative Risk Matrix

T time

t tonne

tdu thermal dose units

tpd tonnes per day

VCE Vapour Cloud Explosion

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# Background

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# Introduction and Scope

# Discussion and Conclusions

# References