

DIN EN ISO 11114-1:2017-05 (E)

Gas cylinders - Compatibility of cylinder and valve materials with gas contents - Part 1: Metallic materials (ISO 11114-1:2012 + Amd.1:2017) (includes Amendment A1:2017)

Contents	Page
Foreword to EN ISO 11114-1:2012	3
[A1] European foreword to Amendment 1 [A1]	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Materials	7
4.1 General	7
4.2 Cylinder materials	8
4.3 Valve materials	8
5 Compatibility criteria	9
5.1 General	9
5.2 Corrosion	9
5.3 Hydrogen embrittlement phenomenon	10
5.4 Generation of dangerous products	10
5.5 Violent reactions (e.g. ignition)	10
5.6 Stress corrosion cracking	11
6 Material compatibility	11
6.1 Table of compatibility for single gases (see Table 1)	11
6.2 Compatibility for gas mixtures	11
6.3 Using Table 1	11
Annex A (informative) Gas/materials NQSAB compatibility code	41
A.1 General	41
A.2 Material classes and compatibility identification	41
A.3 NQSAB code	42
A.4 Groups of gases	51
Bibliography	57