

CGA G-1—2009

ACETYLENE

TWELFTH EDITION



COMPRESSED GAS ASSOCIATION, INC.

4221 Walney Road, 5th Floor

Chantilly, VA 20151

Phone: 703-788-2700

Fax: 703-961-1831

E-mail: cga@cganet.com

PLEASE NOTE:

The information contained in this document was obtained from sources believed to be reliable and is based on technical information and experience currently available from members of the Compressed Gas Association, Inc. and others. However, the Association or its members, jointly or severally, make no guarantee of the results and assume no liability or responsibility in connection with the information or suggestions herein contained. Moreover, it should not be assumed that every acceptable commodity grade, test or safety procedure or method, precaution, equipment or device is contained within, or that abnormal or unusual circumstances may not warrant or suggest further requirements or additional procedure.

This document is subject to periodic review, and users are cautioned to obtain the latest edition. The Association invites comments and suggestions for consideration. In connection with such review, any such comments or suggestions will be fully reviewed by the Association after giving the party, upon request, a reasonable opportunity to be heard. Proposed changes may be submitted via the Internet at our web site, www.cganet.com.

This document should not be confused with federal, state, provincial, or municipal specifications or regulations; insurance requirements; or national safety codes. While the Association recommends reference to or use of this document by government agencies and others, this document is purely voluntary and not binding unless adopted by reference in regulations.

A listing of all publications, audiovisual programs, safety and technical bulletins, and safety posters is available via the Internet at our website at www.cganet.com. For more information contact CGA at Phone: 703-788-2700, ext. 799. E-mail: customerservice@cganet.com.

Work Item 07-017
Acetylene Committee

NOTE—Technical changes from the previous edition are underlined.

TWELFTH EDITION: 2009
ELEVENTH EDITION: 2003
TENTH EDITION: 2001
NINTH EDITION: 1996
EIGHTH EDITION: 1990

© 2009 The Compressed Gas Association, Inc. All rights reserved.

All materials contained in this work are protected by United States and international copyright laws. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopying, recording, or any information storage and retrieval system without permission in writing from The Compressed Gas Association, Inc. All requests for permission to reproduce material from this work should be directed to The Compressed Gas Association, Inc., 4221 Walney Road, Suite 500, Chantilly VA 20151. You may not alter or remove any trademark, copyright or other notice from this work.

This is a preview. Click here to purchase the full publication.

Contents	Page
1 Introduction.....	1
2 Scope	1
3 Acetylene.....	1
3.1 Composition.....	1
3.2 Physical and chemical properties	1
3.3 Physiological effects	4
3.4 Manufacture.....	4
3.5 Pipeline use of acetylene.....	4
3.6 Cylinder use.....	4
4 Acetylene cylinders	4
4.1 General.....	4
4.2 Valves.....	5
4.3 Pressure relief devices	5
4.4 Filling limits	5
4.5 Marking and labeling	5
4.6 Refilling.....	6
5 Storing acetylene cylinders at user's premises	6
5.1 General.....	6
5.2 Rules for storing acetylene cylinders.....	7
6 Handling and using acetylene cylinders	7
6.1 Moving cylinders.....	8
6.2 Withdrawing acetylene from cylinders	9
6.3 Determining cylinder contents	10
6.4 Returning empty cylinders	10
6.5 Handling leaking cylinders.....	10
6.6 Prevention of fire	10
7 Piping, fittings, and equipment	10
8 References	11
Table	
Table 1—Physical constants of acetylene.....	2
Figure	
Figure 1—Typical acetylene cylinder shell constructions.....	3