

Annex R (informative)

References for Tanks in Non-petroleum Product Service

R.1 In addition to the tanks covered in the Scope of API 650, this standard is frequently specified for tanks storing a variety non-petroleum liquids. The industry documents listed in this annex provide additional guidance for both specific design and material selection considerations to reduce or prevent accelerated corrosion mechanisms from damaging the tank.

R.2 The list of references included in this annex is not exhaustive and the user needs to do their own research to confirm recommendations.

R.3 For commodities not listed in the Scope of API 650, or for additional information, chemical manufacturers often provide guidance documents for storing and handling of their specific products.

NACE International ²⁴

Corrosion Prevention by Protective Coatings, Second Edition, Item #37507

Metallic Materials for Concentrated Sulfuric Acid Service, Item #51300-01342-SG

Alloy Selection for Dilute and Medium Concentration Sulfuric Acid, Item #51300-04233-SG

Design, Fabrication and Inspection of Storage Tank Systems for Concentrated Fresh and Process Sulfuric Acid and Oleum at Ambient Temperatures, Item #SP0294-2006

Materials Technology Institute, Inc. ²⁵

Materials Selector for Hazardous Chemicals—Volume 1: Sulfuric Acid, MTI Publication No. MS-1, Second Edition

Materials Selector for Hazardous Chemicals—Volume 2: Formic, Acetic and Other Organic Acids, MTI Publication No. MS-2

Materials Selector for Hazardous Chemicals—Volume 3: MS-3: Hydrochloric Acid, Hydrogen Chloride and Chlorine, MTI Publication No. MS-3

Materials Selector for Hazardous Chemicals—Volume 4: Hydrogen Fluoride and Hydrofluoric Acid, MTI Publication No. MS-4

Materials Selector for Hazardous Chemicals—Volume 5: Nitric Acid, MTI Publication No. MS-5

Materials Selector for Hazardous Chemicals—Volume 6: Ammonia and Caustic Soda, MTI Publication No. MS-6

Materials Selector for Hazardous Chemicals—Volume 7: Phosphoric Acid, MTI Publication No. MS-7

Materials Selector for Hazardous Chemicals—Volume 8: MS-8: Organic Solvents, MTI Publication No. MS-8

²⁴ NACE International (formerly the National Association of Corrosion Engineers), 1440 South Creek Drive, Houston, Texas 77084-4906, www.nace.org.

²⁵ Materials Technology Institute, 1215 Fern Ridge Parkway, Suite 206, St. Louis, Missouri 63141-4405, <http://mtiproductions.org>.

The Chlorine Institute ²⁶

Pamphlet 94, *Sodium Hydroxide Solution and Potassium Hydroxide Solution (Caustic) Storage Equipment and Piping Systems*

Pamphlet 163, *Hydrochloric Acid Storage and Piping Systems*

Health and Safety Executive ²⁷

Bulk storage of acids: Guidance on the storage of hydrochloric acid and nitric acid in tanks, ISBN: 9780717626830.

The Fertilizer Institute ²⁸

Recommended Mechanical Integrity Guidelines for Aboveground Storage Tanks of Liquid Fertilizer, Downloadable PDF.

²⁶ The Chlorine Institute, 1300 Wilson Blvd., Suite 525, Arlington, VA 22209, <https://www.chlorineinstitute.org>.

²⁷ Health and Safety Executive, Knowledge Centre, (1G) Redgrave Court, Merton Road, Bootle, Merseyside, L20 7HS, advice@hse.gsi.gov.uk, <http://www.hse.gov.uk/pubns/books/hsg235.htm>.

²⁸ The Fertilizer Institute, 425 Third Street, SW, Suite 950, Washington, D.C. 20024, <http://www.tfi.org>.