

CHAPTER 31

CORROSIVE MATERIALS

SECTION 3101 GENERAL

3101.1 Scope. The storage and use of corrosive materials shall be in accordance with this chapter. Compressed gases shall also comply with Chapter 30.

Exceptions:

1. Display and storage in Group M and storage in Group S occupancies complying with Section 2703.11.
2. Stationary storage battery systems in accordance with Section 608.
3. This chapter shall not apply to R-717 (ammonia) where used as a refrigerant in a refrigeration system (see Section 606).

3101.2 Permits. Permits shall be required as set forth in Sections 105.6 and 105.7.

3101.3 Construction documents. Prior to the installation or modification of piping, systems or tanks containing corrosive materials or the installation or modification of storage rooms for corrosive materials, construction documents shall be submitted to the Fire Code Official for approval. The construction documents shall be sealed and signed by a qualified Arizona Registered Professional Engineer.

SECTION 3102 DEFINITIONS

3102.1 Definition. The following word and term shall, for the purposes of this chapter and as used elsewhere in this code, have the meaning shown herein.

CORROSIVE. A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the point of contact. A chemical shall be considered corrosive if, when tested on the intact skin of albino rabbits by the method described in DOTn 49 CFR 173.137, such chemical destroys or changes irreversibly the structure of the tissue at the point of contact following an exposure period of 4 hours. This term does not refer to action on inanimate surfaces.

SECTION 3103 GENERAL REQUIREMENTS

3103.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of corrosive materials in amounts not exceeding the maximum allowable quantity per control area indicated in Section 2703.1 shall be in accordance with Sections 2701, 2703 and 3101.

3103.2 Quantities exceeding the maximum allowable quantity per control area. The storage and use of corrosive materials in amounts exceeding the maximum allowable quantity per control area indicated in Section 2703.1 shall be in accordance with this chapter and Chapter 27.

SECTION 3104 STORAGE

3104.1 Indoor storage. Indoor storage of corrosive materials in amounts exceeding the maximum allowable quantity per control area indicated in Table 2703.1.1(2), shall be in accordance with Sections 2701, 2703, 2704 and this chapter.

3104.1.1 Liquid-tight floor. In addition to the provisions of Section 2704.12, floors in storage areas for corrosive liquids shall be of liquid-tight construction.

3104.2 Outdoor storage. Outdoor storage of corrosive materials in amounts exceeding the maximum allowable quantity per control area indicated in Table 2703.1.1(4) shall be in accordance with Sections 2701, 2703, 2704 and this chapter.

3104.2.1 Above-ground outside storage tanks. Above-ground outside storage tanks exceeding an aggregate quantity of 1,000 gallons (3785 L) of corrosive liquids shall be provided with secondary containment in accordance with Section 2704.2.2.

3104.2.2 Distance from storage to exposures. Outdoor storage of corrosive materials shall not be within 20 feet (6096 mm) of buildings not associated with the manufacturing or distribution of such materials, lot lines, public streets, public alleys, public ways or means of egress. A 2-hour fire barrier wall without openings or penetrations, and extending not less than 30 inches (762 mm) above and to the sides of the storage area, is allowed in lieu of such distance. The wall shall either be an independent structure, or the exterior wall of the building adjacent to the storage area.

SECTION 3105 USE

3105.1 Indoor use. The indoor use of corrosive materials in amounts exceeding the maximum allowable quantity per control area indicated in Table 2703.1.1(2) shall be in accordance with Sections 2701, 2703, 2705 and this chapter.

3105.1.1 Liquid transfer. Corrosive liquids shall be transferred in accordance with Section 2705.1.10.

3105.1.2 Ventilation. When corrosive materials are dispensed or used, mechanical exhaust ventilation in accordance with Section 2705.2.1.1 shall be provided.

3105.2 Outdoor use. The outdoor use of corrosive materials in amounts exceeding the maximum allowable quantity per control area indicated in Table 2703.1.1(4) shall be in accordance with Sections 2701, 2703, 2705 and this chapter.

3105.2.1 Distance from use to exposures. Outdoor use of corrosive materials shall be located in accordance with Section 3104.2.2.

