

NFPA vs. OSHA Flammable & Combustible Liquids

NFPA 704	NFPA			OSHA		
	CLASS	FLASH POINT	BOILING POINT	CATEGORY	FLASH POINT	BOILING POINT
4 (Danger)	IA	< 73°F	< 100°F	1	< 73.4°F	< 95°F
3 (Warning)	IB	< 73°F	> 100°F	2	< 73.4°F	> 95°F
	IC	73-100°F		3	73.4-140°F	
2 (Caution)	II	100-140°F		4	140-199.4°F	
	IIIA	140-200°F				
1	IIIB	> 200°F				
0	Not Combustible					

Why the difference? DOT and OSHA have evolved to align with United Nations (UN) definitions.

According to NFPA a flammable liquid is any liquid having a flashpoint below 100 °F. Combustible liquids have a flashpoint above 100 °F. [NFPA 30, 3.3.33.2/4.3.1 and 3.3.33.1/4.3.2]

AFI 91-203 uses the NFPA definitions. [22.1.2 and 22.1.3]

According to OSHA a “*flammable liquid* means any liquid having a flashpoint at or below 199.4 °F,” [1910.106(a)(19)], but....

OSHA’s references to “flammable liquids” needing grounding/bonding, dispensing, storage, or other specific precautions are consistent “with a flashpoint below 100 °F”, which correlates with the requirements of both NFPA and AFI 91-203. In fact, OSHA has 59 references/requirements specific to liquids having a flashpoint below 100 °F.

(Some examples: 1910.106(e)(6)(ii), 1910.106(f)(3)(vi), and 1910.106(h)(7)(i)(b) for dispensing and grounding; 1910.106(g)(1)(v) for dispensing; 1910.106(g)(4)(iii)(d) for piping; 1910.106(d)(4)(iii) for storage room electrical requirements; 1910.106(e)(2)(iv)(a), 1910.106(f)(1)(i), and 1910.106(f)(2)(iii)(b) for storage; 1910.106(e)(2)(iv)(c) for proximity to ignition sources; 1910.106(e)(3)(v)(a) for ventilation requirements; and 1910.106(e)(3)(v)(b) for equipment exposure. This list is not all-inclusive.)