

INFORMATION ON FLASHPOINT AND FIRE-FIGHTING
MEDIA FOR CHEMICALS TO WHICH NEITHER THE IBC CODE
NOR THE BCH CODE APPLY

1 The Maritime Safety Committee, at its fifty-ninth session, approved the information annexed on flashpoint and fire-fighting media for chemicals contained in chapter 18 of the IBC Code and chapter VII of the BCH Code.

2 As recognized in paragraph 18.2 of the IBC Code and paragraph VII.2 of the BCH Code, although the chemical products listed in the annex are not considered to come within the scope of the codes and are not covered by the carriage requirements of the codes, son safety precautions may be needed for their safe transportation.

3 It should be noted that the information on fire-extinguishing media given for the products listed in the annex do not constitute mandatory requirements. Member Governments are invited to take this information into consideration as a guide when prescribing appropriate safety requirements for the carriage of these products.

ANNEX

EXPLANATORY NOTES

Product name (column a)	The product names may not be identical with the names given in previous issues of the codes (for explanation see Index of Chemicals).
Flashpoint (column b)	The flashpoint determined by a closed-cup method is listed when available for chemicals having a flashpoint below 60→. Some flashpoints could only be found in the literature which had been determined by an open-cup method or by a method which was not specified. These flashpoints are

shown in brackets (). In general, a closed-cup determination will yield a figure lower than that obtained from an open-cup determination. NF means non-flammable.

Fire-extinguishingA: alcohol-resistant form media (column c) B: regular foam, encompasses all foams that are not of an alcohol-resistant type, including fluoroprotein and aqueous-film-forming foam (AFFF)
C: water-spray
D: dry chemical
No: no special media recommended

Note: 1. The information given for fire-extinguishing media is only for guidance and does not constitute any mandatory requirement.

2. Where the media given is D + C, water should be applied to cool down the cargo, cargo tank and equipment to help prevent re-ignition after the use of dry chemical media to extinguish the fire.

a	b	c
product name	Flashpoint →	Fire- extinguishing media
Acetone	-18	A
Alcohols (C ₁₂ and above)	above 60	A
Alcoholic beverages not otherwise specified	20-60 compositionA dependent	
Alkyl (C ₉ -C ₁₇) benzenes	above 60	A, B
Aluminium sulphate solution	NF	A
Aminoethyl diethanolamine/ Aminoethyl ethanolamine, water solution	above 60	A
2-Amino-2-hydroxymethyl-1,3-propanediol solution (40% or less)	none	A
Ammonium sulphate solution	NF	No
n-Amyl alcohol	48	A

sec-Amyl alcohol	33	A
tert-Amyl alcohol	20	A
Amyl alcohol, primary	about 40	A
Animal oils not otherwise specified, including cod liver oil and sperm oil	above 60	A, B
Apple juice	NF	No
Behenyl alcohol	above 60	A

a product name	b Flashpoint →	c Fire- extinguishing media
Benzene tricarboxylic acid trioctyl ester	above 60	A, B
Brake fluid base mix (Poly (2-8) alkylene (C ₂ -C ₈) glycols/ Polyalkylene (C ₂ -C ₁₀) glycols monoalkyl (C ₁ -C ₄) ethers and their borate esters)]/	above 60	A
sec-Butyl acetate	17	A
n-Butyl alcohol	29	A
sec-Butyl alcohol	24	A
tert-Butyl alcohol	4	A
Butylene glycol	above 60	A
gamma-Butyrolactone	above 60	A
Butyl stearate	above 60	B, C
Calcium carbonate slurry	NF	No
Calcium hydroxide, slurry	NF	No

Calcium nitrate/Magnesium nitrate/ Potassium chloride solution	NF	No
epsilon-Caprolactam (molten or aqueous solutions)	above 60	A
Cetyl/Stearyl alcohol	above 60	A
Chlorinated paraffins (C ₁₄ -C ₁₇) with 52% chlorine	above 60	A, B

1/ Use "Brake fluid base mix" as a proper name on the shipping document

* Depends on acetone content

a product name	b Flashpoint →	c Fire- extinguishing media
Choline chloride solutions	NF	No
Clay slurry	NF	No
Coal slurry	none	A, B
Coconut oil fatty acid methyl ester	above 60	A
Decahydronaphthalene	57	A, B
Decylbenzene	above 60	A, B
Dextrose solution	NF	No
Diacetone alcohol	8* to 60*	A
Dialkyl (C ₇ -C ₁₃) phthalates	above 60	B, C
Diethylene glycol	above 60	A
Diethylene glycol butyl ether	above 60	A
Diethylene glycol butyl ether acetate	above 60	A
Diethylene glycol dibutyl	above 60	A

ether		
Diethylene glycol diethyl ether	above 60	A
Diethylene glycol ethyl ether	above 60	A
a	b	c
product name	Flashpoint →	Fire- extinguishing media
Diethylene glycol ethyl ether acetate	above 60	A
Diethylene glycol methyl ether acetate	above 60	A
Diethylenetriamine pentaacetic acid pentasodium salt solution	NF	No
Di(2-ethylhexyl)adipate	above 60	A
1,4-Dihydro-9,10-dihydroxy anthracene, disodium salt solution	NF	No
Diheptyl phthalate	above 60	B, C
Dihexyl phthalate	above 60	B, C
Diisobutyl ketone	49	A, B; D+ C
Diisodecyl phthalate	above 60	A, B, C
Diisononyl adipate	above 60	A
Diisooctyl phthalate	above 60	B, C
Diisopropyl naphthalene	above 60	A, B
2, 2-Dimethylpropane-1, 3-diol	above 60	A
Dinonyl phthalate	above 60	B, C
Dioctyl phthalate	above 60	B, C

a	b	c
product name	Flashpoint →	Fire- extinguishing media
Dipropylene glycol	above 60	A
Dipropylene glycol methyl ether	above 60	A, C; D+C
Ditridecyl phthalate	above 60	B, C
Diundecyl phthalate	above 60	B, C
Dodecane (all isomers)	43 to 74 composition dependent	B; D+C
Dodecenyl succinic acid, dipotassium salt solution	NF	No
Dodecyl benzene	above 60	A, B
Drilling brines:		
Calcium bromide solution	NF	No
Calcium chloride solution	NF	No
Sodium chloride solution	NF	No
2-Ethoxyethanol	50	A
Ethyl acetate	-5	A
Ethyl acetoacetate	above 60	A
Ethyl alcohol	13	A
Ethyl propionate	12	A
Ethylene carbonate	above 60	A
Ethylenediamine tatraacetic acid tetrasodium salt solution	NF	No

a	b	c
product name	Flashpoint →	Fire- extinguishing media

Ethylene glycol	above 60	A
Ethylene glycol acetate	above 60	A
Ethylene glycol butyl ether	above 60	A
Ethylene glycol isopropyl ether	43	A
Ethylene glycol methyl butyl ether	22 to 40 (isomer dependent)	A, C; D+C
Ethylene glycol methyl ether	42	A
Ethylene glycol methyl ether acetate	56	A
Ethylene glycol phenyl ether	above 60	B, C
Ethylene glycol tert-butyl ether	above 60	A
Ethylene glycol phenyl ether/ Diethylene glycol phenyl ether mixture	above 60	B, C
2-Ethylhexanoic acid	above 60	B, C
Ethylene/Vinyl acetate copolymer (emulsion)	none	A, C; D+C
Fatty acid (saturated C13 and above)	above 60	A
Ferric hydroxyethylethylene diamine triacetic acid, trisodium salt solution	NF	No
Formamide	above 60	B, C

a	b	c
product name	Flashpoint →	Fire-extinguishing media
Glucose solution	NF	No

Glycerin	above 60	A
Glycerol polyalkoxylate	above 60	A
Glyceryl triacetate	above 60	A
Glycine, sodium salt solution	NF	No
Glyoxal solution (40% or less)	NF	No
n-Heptanoic acid	above 60	A
Hexamethylene diamine adipate, (50% in water)	NF	No
Hexamethylene glycol	above 60	A
Hexamethylene tetramine solutions	NF	No
Hexanoic acid	above 60	A
Hexanol	above 60	A
Hexylene glycol	above 60	B, C
N-(Hydroxyethyl)ethylenediamine triacetic acid, trisodium salt solution	NF	No
Isoamyl alcohol	(45)	A

a product name	b Flashpoint →	c Fire- extinguishing media
Isobutyl alcohol	28	A
Isobutyl formate	10	A
Isophorone	above 60	A, B
Isopropyl acetate	16	A
Isopropyl alcohol	22	A
Kaolin slurry	NF	No
Lactic acid	above 60	A
Lard	above 60	A, B
Latex: Styrene butadiene rubber	NF	No

latex Carboxylated styrene-butadiene copolymer		
Lignin sulphonic acid, sodium salt solution	NF	No
Magnesium chloride solution	NF	No
Magnesium hydroxide slurry	NF	No
3-Methoxy-1-butanol	above 60	A
3-Methoxybutyl acetate	above 60	A
Methyl acetate	-9	A

a product name	b Flashpoint →	c Fire- extinguishing media
Methyl acetoacetate	above 60	A
Methyl alcohol	(12)	A
Methyl butenol	23-43 composition dependent	A
Methyl tert-butyl ether	-10	A
Methyl butyl ketone	(35)	A
Methyl butynol	(25)	A
Methyl ethyl ketone	-7	A
Methyl isobutyl ketone	23	A
3-Methyl-3-methoxy butanol	above 60	A
3-Methyl-3-methoxy butyl acetate	above 60	A
Molasses	above 60	A
phthalene sulphonic acid- formaldehyde copolymer, sodium salt solution	NF	No

Nitrilotriacetic acid, trisodium salt solution	NF	No
Nonanoic acid (all isomers)	above 60	A
Nonyl methacrylate monomer	above 60	A

a	b	c
product name	Flashpoint →	Fire-extinguishing media

Noxious liquid, n.o.s.
(trade name, composition containing)
Category D₁/

Non-noxious liquid, n.o.s.
(trade name, composition containing)
Appendix III₁/

Octanoic acid (all isomers)	above 60	A
Octyl decyl adipate	above 60	A
Oleic acid	above 60	B, C
n-Octyl acetate	above 60	A
Olefins (C ₈ and above, all isomers)	above 60	B, C; D+C
alpha-Olefins (C ₁₃ -C ₁₈)	above 60	B, C; D+C
Palm oil fatty acid methyl ester	above 60	A
Palm stearin	above 60	A
n-Paraffins (C ₁₀ -C ₂₀)	44 to 100 (composition dependent)	B, C; D+C
Paraffin wax	above 60	B
Pentaethylenhexamine	above 60	A
Pentanoic acid	above 60	A

Petrolatum	above 60	B, C; D+C
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1/ In case of a specific n.o.s. (not otherwise specified) cargo assessed as falling within this n.o.s. group that is carried on a ship, this entry, including 'the cargo's trade name and one or two principle components, Should be provided in the shipping document.

a	b	c
product name	Flashpoint →	Fire- extinguishing media
Polyaluminium chloride solution	NF	No
Polybutene	above 60	B; D+C
Polyethylene glycol	above 60	A
Polyethylene glycol dimethyl ether	above 60	A
Polypropylene glycol	above 60	A
Polypropylene glycol methyl ether	above 60	A
Polysiloxane	above 60	A
n-Propyl acetate	15	A
n-Propyl alcohol	about 20	A
Propylene-butylene copolymer	above 60	B
Propylene glycol	above 60	A
Propylene glycol ethyl ether	54	B; D+C
Propylene glycol methyl ether	33	A
Propylene glycol monoalkyl ether	above 36 composition dependent	A
Sodium aluminosilicate slurry	NF	No

a	b	c
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product name	Flashpoint →	Fire- extinguishing media
Sodium carbonate solution	NF	No
Sodium silicate solution	NF	No
Sorbitol	above 60	A
Sulpholane	above 60	B, C
Tallow	above 60	A, B
Tallow fatty acid	above 60	A
Tetraethylene glycol	above 60	A
Tridecane	above 60	B
Tridecanoic acid	above 60	A
Triethylene glycol	above 60	A
Triethylene glycol butyl ether	above 60	A
Triethylene glycol ethyl ether	above 60	A
Triethylene glycol methyl ether	above 60	A
Triisopropanolamine	above 60	A
Trimethylol propane polyethoxylate	above 60	A

a product name	b Flashpoint →	c Fire- extinguishing media
Tripropylene glycol	above 60	A, B, C
Tripropylene glycol methyl ether	above 60	A, B D+C
Urea/Ammonium mono- and di-hydrogen phosphate/Potassium chloride solution	NF	No
Urea solution	NF	No
Urea, ammonium nitrate solution	NF	No

Urea, ammonium phosphate solution	NF	No
Vegetable oil, not otherwise specified, including Castor oil, Coconut oil, Corn oil, Cotton seed oil, Linseed oil, Olive oil, Palmnut oil, Palm oil, Rape seed oil, Rice bran oil, Safflower oil, Sesame oil, Soya bean oil, Sunflower oil, Tung oil:	above 60 above 60	A; D+C
Ground-nut oil		
Vegetable protein solution (hydrolysed)	NF	No
Water	NF	No