

HAZMAT Chemical Compatibility Training

2019

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Simplified Compatibility Matrix

Chemical Compatibility Matrix

Color	Material Class	HCC	Yellow B1-B3	Light Blue C1,C3	Blue C2	Purple C4	Light Gray D1,D2	Gray D3	Tan D4	Red F1-F4, F8	Pink F5,F6	Orange F7	Light Green N1	Black T1,T4-T7	Green V2-V7
Yellow	Corrosive Alkali	B1-B3	B1-B3	O	O	X	X	X	X	O	O	O	N1	O	+
Light Blue	Corrosive Acid, Inorganic	C1,C3	O	C1,C3	O	O	X	O	X	O	O	O	O	O	O
Blue	Corrosive Acid, Organic	C2	O	O	C2	X	X	X	X	O	O	O	X	O	+
Purple	Acid, Corrosive and Oxidizer, Inorganic	C4	X	O	X	C4	O	X	X	X	O	X	X	O	O
Light Gray	Oxidizer, Oxidizer and Poison	D1,D2	X	X	X	O	D1,D2	O	O	X	X	X	O	O	X
Gray	Oxidizer and Corrosive, Acidic	D3	X	O	X	X	O	D3	O	X	X	X	X	O	O
Tan	Oxidizer and Corrosive, Alkali	D4	X	X	X	X	O	D4	X	X	X	X	X	O	O
Red	Flammable Liquids and Solids	F1-F4, F8	O	O	O	X	X	X	X	F1-F4, F8	O	O	O	O	O
Pink	Flammable Liquids, Poison and Acidic	F5,F6	O	O	O	O	X	X	X	O	F5,F6	O	O	+	O
Orange	Flammable Liquid and Corrosive, Alkali	F7	O	O	O	X	X	X	X	O	O	F7	O	O	O
Light Green	Not Regulated as Hazardous	N1	O	O	X	X	O	X	X	O	O	O	N1	O	+
Black	Toxics/Poisons	T1,T4-T7	O	O	O	O	O	O	O	O	+	O	O	T1, T4-T7	+
Green	Aerosols and/or Petroleum Products	V2-V7	+	O	+	O	X	O	O	O	O	O	+	+	V2-V7

Key	
X	Prohibited - Cannot be stored in the same compartment unless segregated by a NAVSEA approved cabinet
O	Restricted - Separation required to prevent reaction or leakage, mixing of hazardous materials would not occur
+	Allowed - Storage together is authorized

NOTES:

- (1) Solids shall be stored above liquids
- (2) Follow the HCC process for obtaining missing or incorrect HCCs (CHRIMP Technician Deskguide)
- (3) For items not covered by the above matrix, consult HM coordinator, CHRIMP Technician, or NSTM 670 Appendix E

HCC-Specific Guidance:

- (1) C1-C4: Store concentrated nitric acid in acid locker, and keep distance from other acids. Store Bromine Cartridges in dedicated cabinets.
- (2) D4: Store Calcium Hypochlorite in designated NAVSEA approved locker. Do not store oxidizers in same compartment with flammables or combustibles.
- (3) G1-G9: Mount all stored gas cylinders to prevent them from falling or rolling (Grade B shock). Keep maximum distance possible between flammable (G2, G8) and oxidizer (G4, G7, G9) gases when not in use (e.g., oxygen/acetylene in welding)
- (4) V2, V3: All aerosols will be stored together within the same location within a storeroom. Further segregate aerosols from flammable liquids and gases in the same space using wire mesh or other barrier (e.g., locker) to prevent projectiles in case of fire

[illegible]

Compatibility Labels

B1-B3
Yellow
Corrosive Alkali

C4
Purple
Acid, Corrosive & Oxidizer,
Inorganic

D4
Tan
Oxidizer & Corrosive, Alkali

F7
Orange
Flammable Liquid &
Corrosive, Alkali

V2-V7
Green
Aerosols and/or
Petroleum Products

C1/C3
Light Blue
Corrosive Acid, Inorganic

D1/D2
Light Gray
Oxidizer/Oxidizer & Poison

F1-F4, F8
Red
Flammable Liquids & Solids

N1
Light Green
Not Regulated as Hazardous

C2
Blue
Corrosive Acid, Organic

D3
Gray
Oxidizer & Corrosive, Acidic

F5/F6
Pink
Flammable Liquids,
Poison & Acidic

T1/T4-T7
Black
Toxics/Poisons

Storage labels: 1" x 2" (H x W)

➤ Health Hazard



**T1/T4-T7
Black
Toxics/Poisons**

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

➤ Exclamation Mark



**T1/T4-T7
Black
Toxics/Poisons**

- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

➤ Skull and Crossbones



**T1/T4-T7
Black
Toxics/Poisons**

- Acute Toxicity
- Fatal or Toxic

GHS Pictograms and Hazards

➤ Flame



- Flammables
- Pyrophoric
- Self-Heating
- Emits Flammable Gas
- Self-Reactive
- Organic Peroxides

F1-F4, F8
Red
Flammable Liquids & Solids

F5/F6
Pink
Flammable Liquids,
Poison & Acidic

F7
Orange
Flammable Liquid &
Corrosive, Alkali

GHS Pictograms and Hazards

➤ Gas Cylinder



- Gases Under Pressure

GHS Pictograms and Hazards

➤ Corrosion



- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals

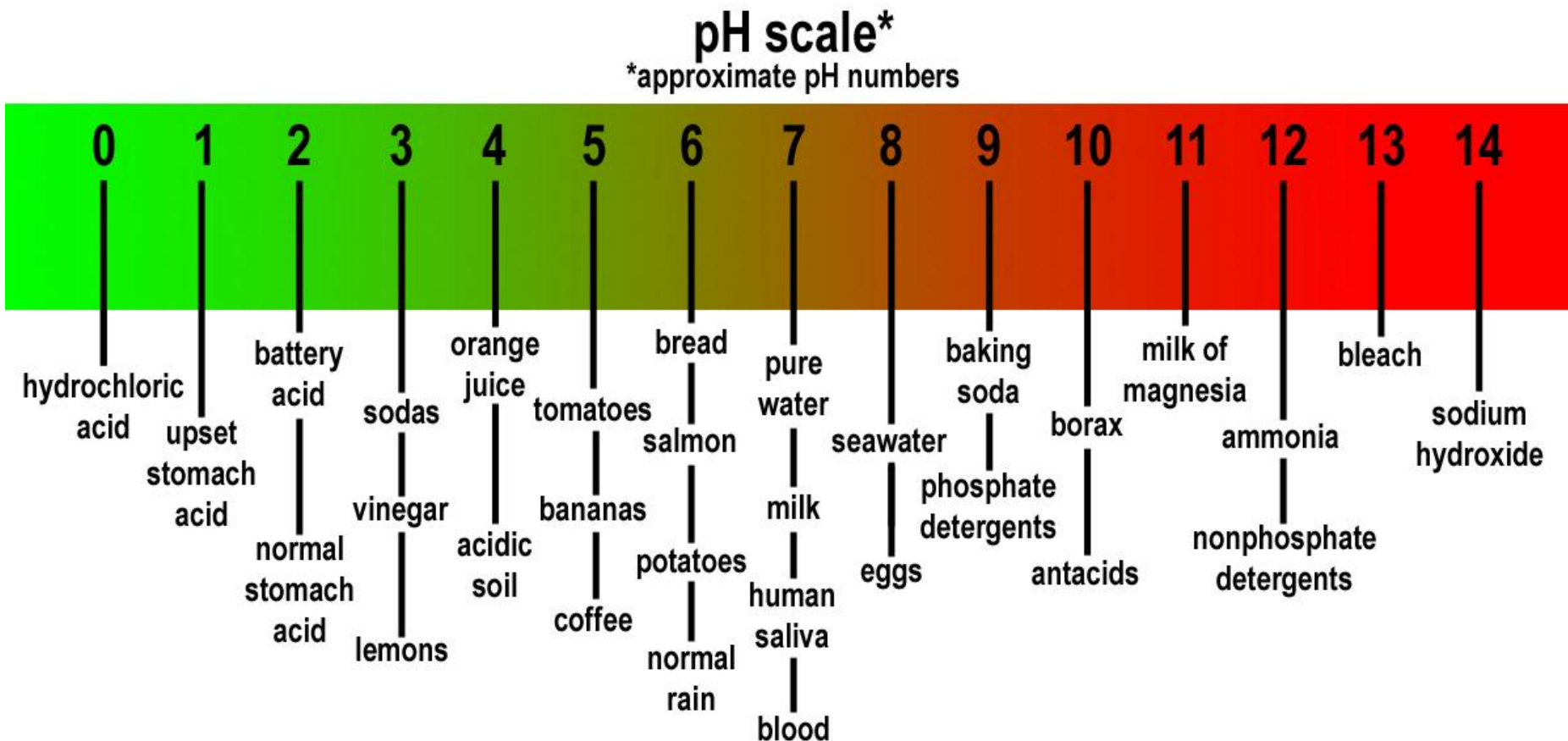
B1-B3
Yellow
Corrosive Alkali

C1/C3
Light Blue
Corrosive Acid, Inorganic

C2
Blue
Corrosive Acid, Organic

C4
Purple
**Acid, Corrosive & Oxidizer,
Inorganic**

PH Scale: Acids and Alkaline



➤ Exploding Bomb



- Explosives
- Self-Reactive
- Organic Peroxides

GHS Pictograms and Hazards

➤ Flame Over Circle



- Oxidizers

C4

Purple

Acid, Corrosive & Oxidizer,
Inorganic

D1/D2

Light Gray

Oxidizer/Oxidizer & Poison

D3

Gray

Oxidizer & Corrosive, Acidic

D4

Tan

Oxidizer & Corrosive, Alkali

➤ Environment (Non-Mandatory)



N1
Light Green
Not Regulated as Hazardous

- Aquatic Toxicity



QUESTIONS