

STANFORD COMPATIBLE STORAGE GROUP GUIDE

Effective segregation in chemical storage reduces the risk of dangerous chemical reactions.

This guide must be used in conjunction with information from the manufacturer's safety data sheets and chemical-specific expert knowledge.

This storage group system is intended to be used in research settings to store laboratory-scale quantities of chemicals.

What to Segregate

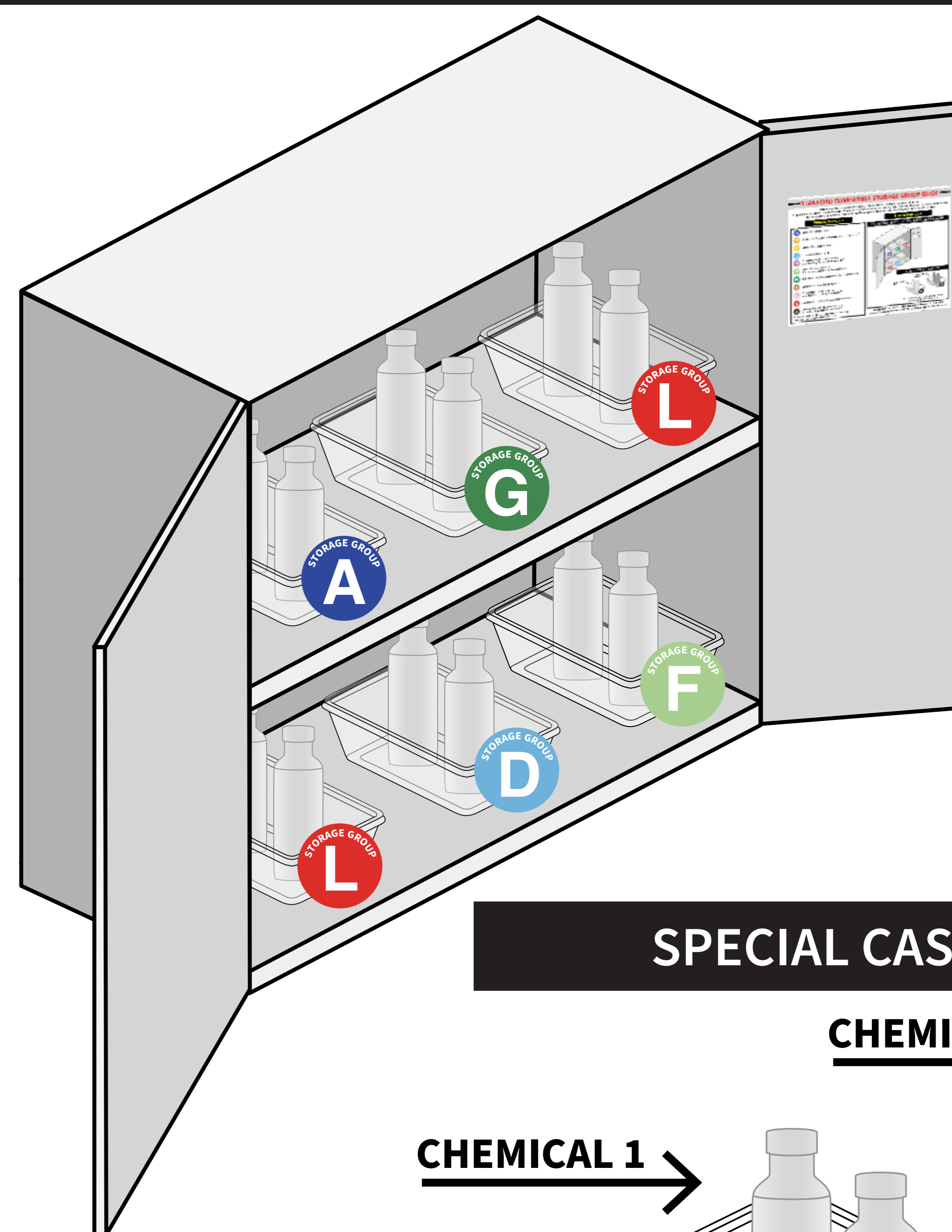
-  **A** Compatible Organic Bases
-  **B** Compatible Pyrophoric & Water-Reactive Materials* 
-  **C** Compatible Inorganic Bases
-  **D** Compatible Organic Acids
-  **E** Compatible Oxidizers & Peroxides*
(not including Strong, Oxidizing Acids)
-  **F** Compatible Inorganic Acids
(not including Oxidizers or Combustibles)
-  **G** Not Intrinsically Reactive, Flammable, or Combustible
-  **I** Compatible Strong, Oxidizing Acids
-  **K** Compatible Stable Explosives*
(not including Oxidizing Explosives)
-  **L** Flammables, Combustibles & Organic Solvents 
-  **X** Incompatible with ALL Other Chemicals*
(including other chemicals within X)

* These materials are likely to require special handling & storage conditions. Use extreme caution.

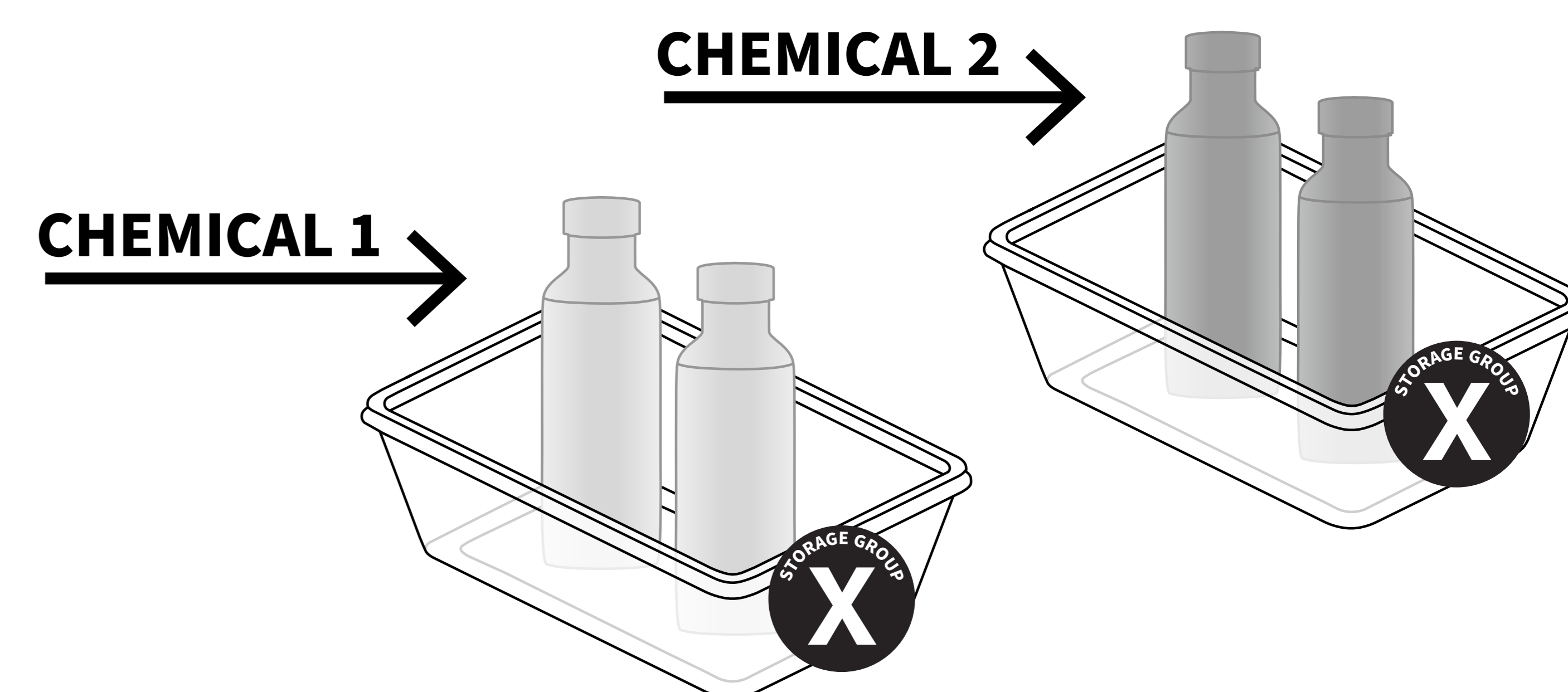
 These materials must be stored in a flammable cabinet.

How to Segregate

USE SEPARATE SECONDARY CONTAINERS FOR EACH GROUP



SPECIAL CASE FOR GROUP X



NOTE: Different chemicals within Storage Group X must be segregated from each other.

Questions? Contact the EH&S Lab Safety Program at 723-0448
Use ChemTracker to find a chemicals' Storage Group - stanford.chemtracker.org

Recommended Storage Groups for Common Chemicals

CHEMICAL	Group	Ethers	L	(K ₃ PO ₄)
1-Butanol or 2-butanol	L	Ethidium bromide	G	Propionic acid
1-Propanol	L	Ethyl acetate	L	Propylene oxide
2-Mercaptoethanol	L	Ethylene glycol	L	Pump oil
Acetic acid, glacial (flammable)	D	Ficoll	G	Pyridine
Acetic anhydride (in THF or acetone: L)	X	Formaldehyde	L	SDS (Sodium dodecyl sulfate) (in solution: G)
Acetone	L	Formamide	L	Sigmatocote
Acetonitrile	L	Formic Acid (≥85%)	D	Sodium acetate
Acetaldehyde	L	Glutaraldehyde	G	Sodium azide
Acrolein	X	Glycerol	L	Sodium bicarbonate
Acrylamide	G	Glycine	G	Sodium bisulfate
Agarose	G	Guanidine hydrochloride	G	Sodium bisulfite
Ammonium acetate	G	Guanidinium thiocyanate	C	Sodium borate
Ammonium chloride	G	Halothane, isoflurane	G	Sodium borohydride
Ammonium formate	G	HEPES	G	Sodium carbonate
Ammonium hydroxide	C	Hexanes	L	Sodium chlorate
Ammonium nitrate	E	Hydrochloric acid	F	Sodium chloride (NaCl)
Ammonium persulfate	E	Hydrogen peroxide, > 5%	E	Sodium citrate dihydrate
Ammonium sulfate	G	Hydrogen peroxide, < 5%	G	Sodium dichromate
Ammonium sulfide	L	Imidazole	A	Sodium dichromate dihydrate
Benzene	L	Isobutyl alcohol	L	Sodium hydroxide (NaOH)
Benzyl chloride	B	Isopentane	L	Sodium hypochlorite
Benzoic acid	D	Isopropanol	L	Sodium hypochlorite solution (i.e. bleach)
BIS/Bis-acrylamide	G	Lithium hydroxide	C	Sodium phosphate
BIS-TRIS	A	Magnesium chloride	G	Sodium sulfide, anhydrous
BIS-TRIS-HCl	G	Magnesium sulfate	G	Succinic acid
Borax	G	Maleic acid	D	Sucrose
Boric acid	G	Methanol	L	Sulfuric acid
Calcium chloride	G	<i>N</i> -Methyl-2-pyrrolidone	L	Tannic acid
Chloroform	G	<i>N,N</i> -Dimethylformamide	L	TEMED
Chromic acid	I	Nitric acid	I	TES free acid
Citric acid	D	<i>p</i> -Dioxane	L	Tetracycline
Coomassie Blue	G	Paraformaldehyde	L	Tetrahydrofuran
Dextrose	G	Perchloric acid	I	Trichloroacetic acid
Dichloromethane	L	Periodic acid	I	Trifluoroacetic acid
Diethylamine (flammable)	A	Permout	L	Toluene
Diethyl pyrocarbonate (DEPC)	L	Phenol (solid)	G	Triethanolamine
Dimethyl sulfoxide (DMSO)	L	Phenol (liquid, ≤ 89% phenol)	L	TRIS
Drierite	G	Phosphoric acid	F	Triton X-100
Econo-Safe, UniverSOL, BetaMax, CytoScint, Scintisafe, EcoLume, Ecoscint, Opti-fluor	L	Picric acid (any concentration)	X	Trizol
EDTA (in solution: G)	D	Piperidine	A	TWEEN 20
Ethanol	L	PIPES, free acid	G	Urea
Ethanolamine	A	Potassium acetate	G	WD-40
		Potassium chloride	G	Xylenes
		Potassium cyanide	C	Zinc chloride
		Potassium hydroxide (KOH)	C	
		Potassium phosphate	G	