The Universities
AT SHADY GROVE

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Chemical Containers

Regulatory bodies and manufacturers determine chemical container material types and publish compatibility charts and databases.

Labels are the initial source of warning for **users** when handling hazardous chemical substances. Federal and state regulations require that labels on original/stock containers of hazardous chemicals include the chemical identity, hazard warnings, and the name and address of the manufacturer, distributor, or other responsible party.

Container Condition

- Chemical containers must be in good condition without damage or degradation.

Labeling

- Do not remove, alter, or deface the manufacturer's label when a chemical is stored in its original container. If a label is illegible or degraded, it must be replaced.
- Manually add the date of opening, or last peroxide test, to the labels of peroxide-forming compounds.

Secondary Chemical Containers

Container Type

- The manufacturer's safety data sheet should be consulted for storage guidance for that material and selecting secondary container material type.

Caps

- Chemicals must be stored in a container with a secure cap that is intended for that purpose. Therefore, parafilm and foil-type coverings are not acceptable.

Labeling

- Containers, including in-lab dilution vessels, that hold liquids must be labeled. Labeling requirements extend to containers holding non-hazardous materials such as water.
- Labels and other forms of warning must be legible, in English, and prominently displayed on the container.
- If a container is reused, all old labeling must be removed or permanently defaced.
- Unlabeled containers of chemicals are a violation of Maryland State regulations, a serious hazard for laboratory personnel, and disposal of them is time-consuming and expensive. Accumulating "unknowns" is prohibited.
- Abbreviations, acronyms, or a labeling scheme may be used in specific cases to label containers of chemicals as long as all personnel working in the lab understand the meaning and know the location of the abbreviation, acronym, or scheme log sheet. A copy of this list must be present, either physically or digitally, in the laboratory and readily available.
- If there is adequate room on the secondary container, hazard information should be added to the label.

Secondary Container Abbreviations and Acronyms

Abbreviation	Chemical Full Name	CAS #
2YT/DYT	Yeast extract and tryptone media	NA
ABTS	2,2′-Azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt	30931-67-0
ACN	Acetonitrile	75-05-8
Amp	Ampicillin	69-53-4
APS	Ammonium persulfate	7727-54-0
BPB	Bromophenol Blue	115-39-9
BSA	Bovine Serum Albumin	9048-46-8
CAPS	3-(cyclohexylamino)-1-propanesulfonic acid	1135-40-6
DAPI	4',6-Diamidino-2-phenylindole	28718-90-3
DCM	Dichloromethane (methylene chloride)	75-09-2
DEAE	N,N-Diethylethanolamine	100-37-8
DEPC	Diethyl pyrocarbonate	1609-47-8
DI H_2O	Deionized water	7732-18-5
D-MEM	Dulbecco's Modified Eagle Medium	NA
DMF	N,N-Dimethylformamide	68-12-2
DMSO	Dimethyl sulphoxide	67-68-5
DTE	1,4-Dithioerythritol	6892-68-8
DTT	Dithiothreitol	3483-12-3
EDDHA	Ethylenediamine-N,N'-bis(2-hydroxyphenylacetic acid	1170-02-1
EDTA	Ethylenediaminetetraacetic acid	60-00-4
EGTA	Ethylene glycol bis(2-aminoethyl ether)-N,N,N'N'-tetraacetic acid	67-42-5
EtBr	Ethidium Bromide	1239-45-8
EtOH	Ethanol	64-17-5
FA	Formic Acid	64-18-6
FBS	Fetal Bovine Serum	NA
FCS	Fetal Calf Serum	NA
H_2O	Water	7732-18-5
H_2O_2	Hydrogen peroxide	7722-84-1
H_2SO_4	Sulfuric acid	7664-93-9
H_3PO_4	Phosphoric acid	7664-38-2
HCl	Hydrochloric acid	7647-01-0
$HClO_4$	Perchloric acid	7601-90-3
HEPES	N-2-Hydroxyethylpiperazine-N-2-ethansulfonic acid	7365-45-9
HNO_3	Nitric acid	7697-37-2
IPA	Isopropyl alcohol, 2-propanol	67-63-0
IPTG	Isopropyl β-D-1-thiogalactopyranoside	367-93-1
KAc	Potassium acetate	127-08-2
KCl	Potassium chloride	7447-40-7
KOH	Potassium hydroxide	1310-58-3
LB	Luria-Bertani medium containing tryptone, yeast extract, agar, tris and sodium chloride salts	NA
MeOH	Methanol	67-56-1
MES	2-(N-morpholino)ethanesulfonic acid	4432-31-9
MOPS	3-(N-Morpholino)propanesulfonic acid	1132-61-2
MQ-H_2O	Milli-Q Water	7732-18-5
Na_2CO_3	Sodium carbonate	497-19-8
NaCl	Sodium chloride	7647-14-5
$NaHCO_3$	Sodium bicarbonate	144-55-8
$NaHPO_4$	Sodium phosphate dibasic	7558-79-4
NaH_2PO_4	Sodium phosphate	7632-05-5
NaN_3	Sodium azide	26628-22-8
$NaNO_3$	Sodium nitrate	7631-99-4
NaOAc	Sodium acetate	6131-90-4
NaOH	Sodium hydroxide	1310-73-2

$NiCl_2$	Nickel chloride	7718-54-9
ONPG	O-Nitrophenyl-ß-D-galactopyranoside	369-07-03
PAGE	Polyacrylamide gel electrophoresis solution	NA
PBS	Phosphate buffered saline	NA
PEG	Polyethylene glycol	25322-68-3
PFA	Paraformaldehyde	30525-89-4
PIPES	Piperazine-N,N'-bis-2-ethanesulfonic acid	5625-37-6
PMSF	Phenylmethanesulfonyl fluoride	329-98-6
SDS	Sodium dodecyl sulfate	151-21-3
SOB	Medium for bacterial culture containing tryptone, yeast extract, sodium chloride	NA
SOC	Medium for bacterial culture	NA
SSC	Sodium chloride/sodium citrate buffer solution	NA
TAE	TRIS-Acetate-EDTA solution	NA
TB	Terrific broth (bacterial culture media)	NA
TBE	TRIS-Borate-EDTA buffer solution	NA
TBS	TRIS buffered saline	NA
TCA	Trichloroacetic acid	76-03-9
TE	Tris-EDTA buffer solution	NA
TEMED	N,N,N′,N′-Tetramethylethylenediamine	110-18-9
TES	N-tris(hydroxymethyl)methyl-2-aminoethane sulfonic acid	7365-44-8
TFA	Trifluoroacetic acid	76-05-1
TRIS	Tris-(hydroxymethyl) aminomethane	77-86-1
TWEEN	Polyethylene glycol sorbitan monolaurate	9005-64-5
X-gal	5-Bromo-4-chloro-3-indolyl β-D-galactopyranoside	7240-90-6
YES	Yeast extract plus supplements	NA
YPD	Yeast growth media	NA