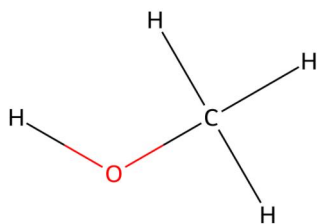




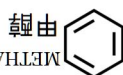
METHANOL

甲醇

BASIC REACTANT



Original Deck



METHANOL

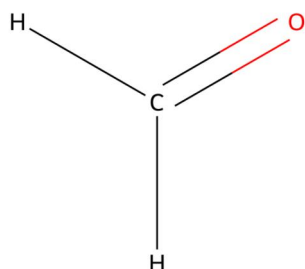
甲醇



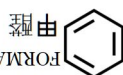
FORMALDEHYDE

甲醛

BASIC REACTANT



Original Deck



FORMALDEHYDE

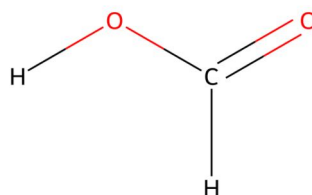
甲醛



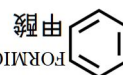
FORMIC ACID

甲酸

BASIC REACTANT



Original Deck



FORMIC ACID

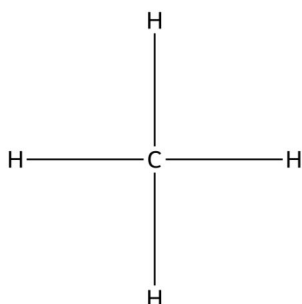
甲酸



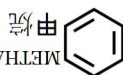
METHANE

甲烷

BASIC REACTANT



Original Deck



METHANE

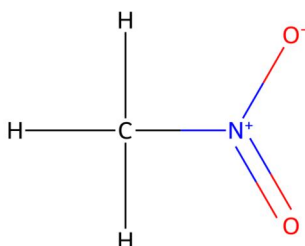
甲烷



NITROMETHANE

硝基甲烷

BASIC REACTANT



Original Deck



NITROMETHANE

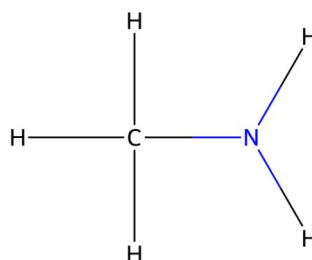
硝基甲烷



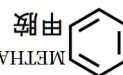
METHANAMINE

甲胺

BASIC REACTANT



Original Deck



METHANAMINE

甲胺



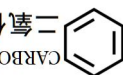
CARBON DIOXIDE

二氧化碳

BASIC REACTANT



Original Deck



CARBON DIOXIDE

二氧化碳



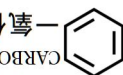
CARBON MONOXIDE

一氧化碳

BASIC REACTANT



Original Deck



CARBON MONOXIDE

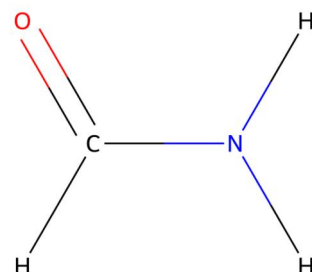
一氧化碳



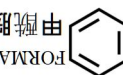
FORMAMIDE

甲酰胺

BASIC REACTANT



Original Deck



FORMAMIDE

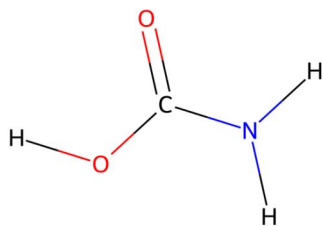
甲酰胺



CARBAMIC ACID

氨基甲酸

BASIC REACTANT



Original Deck

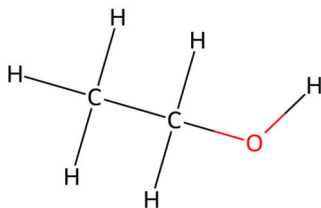
氨基甲酸



ETHANOL

乙醇

BASIC REACTANT



Original Deck

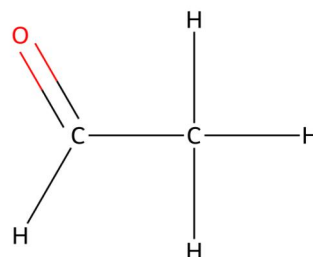
乙醇



ACETALDEHYDE

乙醛

BASIC REACTANT



Original Deck

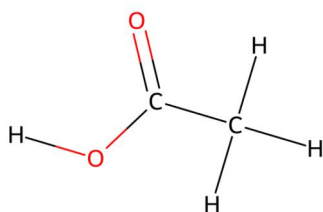
乙醛



ACETIC ACID

乙酸

BASIC REACTANT



Original Deck

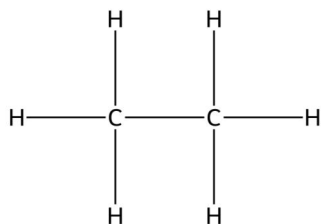
乙酸



ETHANE

乙烷

BASIC REACTANT



Original Deck

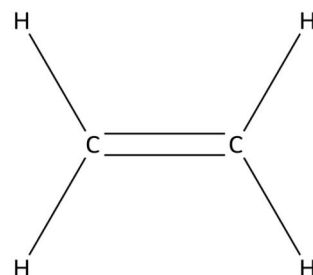
乙烷



ETHENE

乙烯

BASIC REACTANT



Original Deck

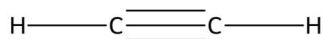
乙烯



ACETYLENE

乙炔

BASIC REACTANT



Original Deck

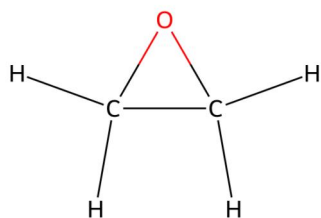
乙炔



OXIRANE

环氧乙烷

BASIC REACTANT



Original Deck

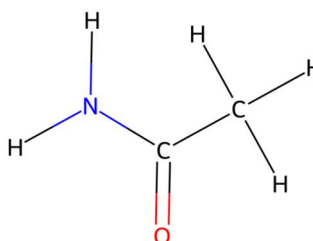
环氧乙烷



ACETAMIDE

乙酰胺

BASIC REACTANT



Original Deck

乙酰胺

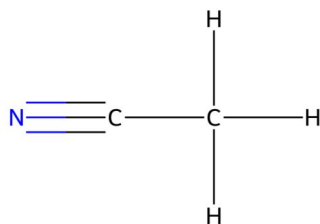




ACETONITRILE

乙腈

BASIC REACTANT



Original Deck

ACETONITRILE

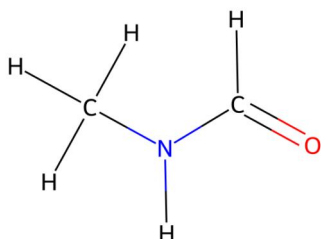
乙腈



N-METHYLFORMAMIDE

N-甲基甲酰胺

BASIC REACTANT



Original Deck

N-METHYLFORMAMIDE

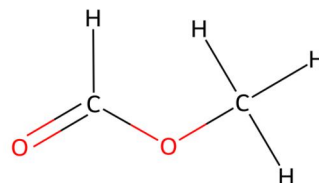
N-甲基甲酰胺



METHYL FORMATE

甲酸甲酯

BASIC REACTANT



Original Deck

METHYL FORMATE

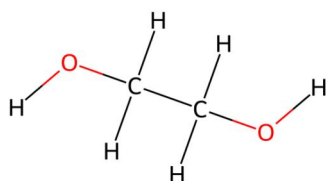
甲酸甲酯



ETHANE-1,2-DIOL

乙二醇

BASIC REACTANT



Original Deck

ETHANE-1,2-DIOL

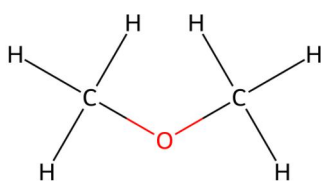
乙二醇



METHOXYMETHANE

二甲醚

BASIC REACTANT



Original Deck

METHOXYMETHANE

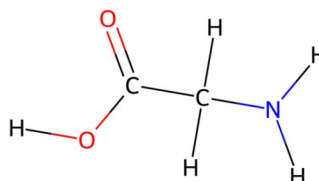
二甲醚



2-AMINOACETIC ACID

2-氨基乙酸

BASIC REACTANT



Original Deck

2-AMINOACETIC ACID

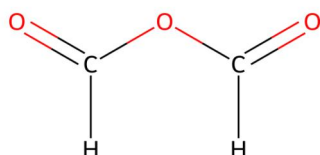
2-氨基乙酸



FORMYL FORMATE

甲酰甲酸酯

BASIC REACTANT



Original Deck

FORMYL FORMATE

甲酰甲酸酯



PROPAN-1-OL

1-丙醇

BASIC REACTANT



Original Deck

PROPAN-1-OL

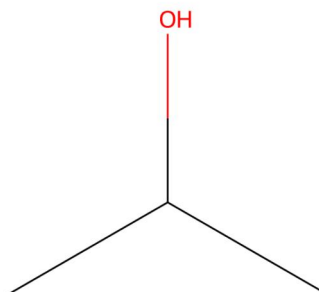
1-丙醇



PROPAN-2-OL

2-丙醇

BASIC REACTANT



Original Deck

PROPAN-2-OL

2-丙醇



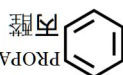
PROPANAL

丙醛

BASIC REACTANT



Original Deck



PROPANAL

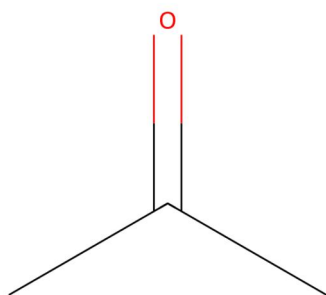
丙醛



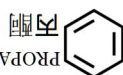
PROPAN-2-ONE

丙酮

BASIC REACTANT



Original Deck



PROPAN-2-ONE

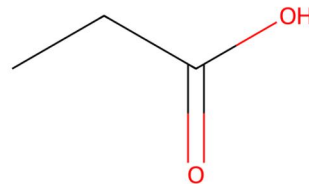
丙酮



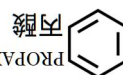
PROPANOIC ACID

丙酸

BASIC REACTANT



Original Deck



PROPANOIC ACID

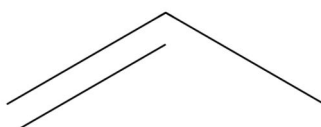
丙酸



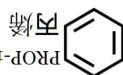
PROP-1-ENE

丙烯

BASIC REACTANT



Original Deck



PROP-1-ENE

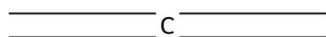
丙烯



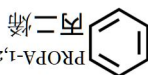
PROPA-1,2-DIENE

丙二烯

BASIC REACTANT



Original Deck



PROPA-1,2-DIENE

丙二烯



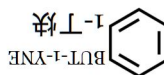
BUT-1-YNE

1-丁炔

BASIC REACTANT



Original Deck



BUT-1-YNE

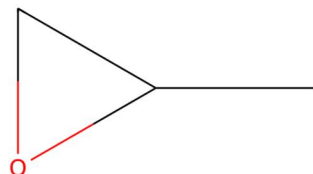
1-丁炔



2-METHYLOXIRANE

2-甲基环氧乙烷

BASIC REACTANT



Original Deck



2-METHYLOXIRANE

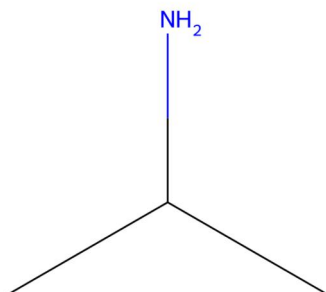
2-甲基环氧乙烷



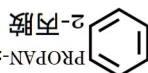
PROPAN-2-AMINE

2-丙胺

BASIC REACTANT



Original Deck



PROPAN-2-AMINE

2-丙胺



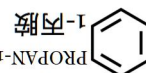
PROPAN-1-AMINE

1-丙胺

BASIC REACTANT



Original Deck



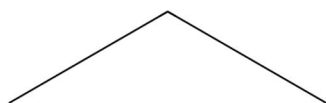
PROPAN-1-AMINE

1-丙胺

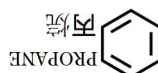


PROPANE  
丙烷

BASIC REACTANT



Original Deck

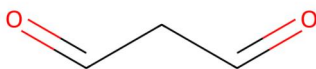


PROPANE  
丙烷

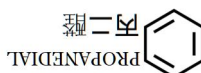


PROPANEDIAL  
丙二醛

BASIC REACTANT



Original Deck

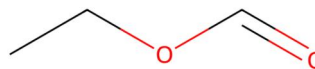


PROPANEDIAL  
丙二醛

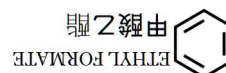


ETHYL FORMATE  
甲酸乙酯

BASIC REACTANT



Original Deck

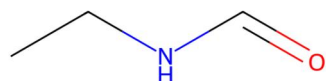


ETHYL FORMATE  
甲酸乙酯



N-ETHYLFORMAMIDE  
N-乙基甲酰胺

BASIC REACTANT



Original Deck

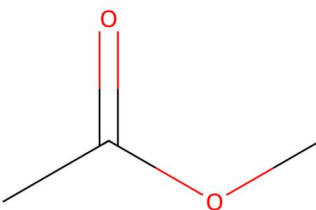


N-ETHYLFORMAMIDE  
N-乙基甲酰胺

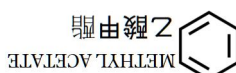


METHYL ACETATE  
乙酸甲酯

BASIC REACTANT



Original Deck

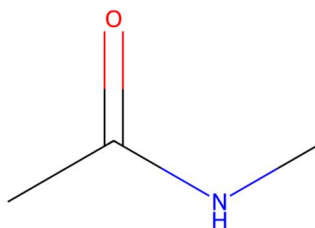


METHYL ACETATE  
乙酸甲酯



N-METHYLACETAMIDE  
N-甲基乙酰胺

BASIC REACTANT



Original Deck

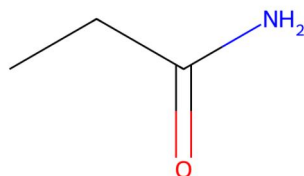


N-METHYLACETAMIDE  
N-甲基乙酰胺



PROPANAMIDE  
丙酰胺

BASIC REACTANT



Original Deck

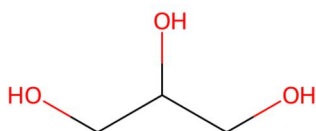


PROPANAMIDE  
丙酰胺

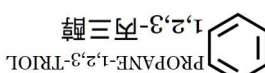


PROPANE-1,2,3-TRIOL  
1,2,3-丙三醇

BASIC REACTANT



Original Deck

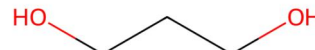


PROPANE-1,2,3-TRIOL  
1,2,3-丙三醇

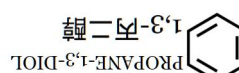


PROPANE-1,3-DIOL  
1,3-丙二醇

BASIC REACTANT



Original Deck

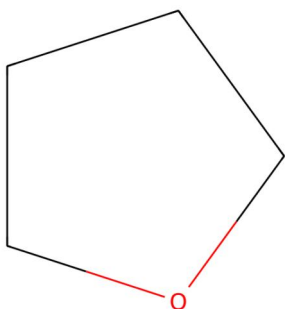


PROPANE-1,3-DIOL  
1,3-丙二醇



OXOLANE  
四氢呋喃

BASIC REACTANT



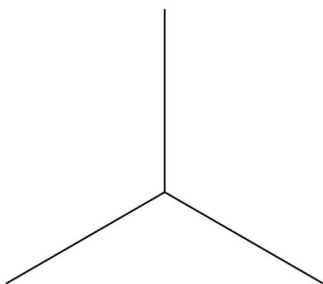
Original Deck

OXOLANE  
四氢呋喃



2-METHYLPROPANE  
2-甲基丙烷

BASIC REACTANT



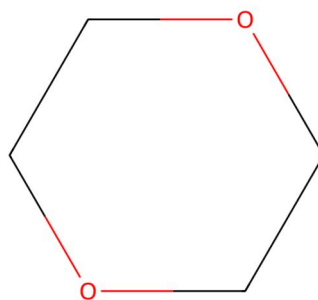
Original Deck

2-METHYLPROPANE  
2-甲基丙烷



1,4-DIOXANE  
1,4-二氧六环

BASIC REACTANT



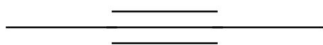
Original Deck

1,4-DIOXANE  
1,4-二氧六环



BUT-2-YNE  
2-丁炔

BASIC REACTANT



Original Deck

BUT-2-YNE  
2-丁炔



BROMINE (Br<sub>2</sub>)  
溴

BASIC REAGENT



Original Deck

BROMINE (Br<sub>2</sub>)  
溴



CHLORINE (Cl<sub>2</sub>)  
氯

BASIC REAGENT



Original Deck

CHLORINE (Cl<sub>2</sub>)  
氯



IODINE (I<sub>2</sub>)  
碘

BASIC REAGENT



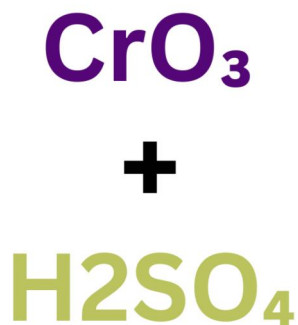
Original Deck

IODINE (I<sub>2</sub>)  
碘



JONE'S REAGENT  
琼斯试剂

BASIC REAGENT



Original Deck

JONE'S REAGENT  
琼斯试剂



COPPER BROMIDE (CuBr)  
溴化铜

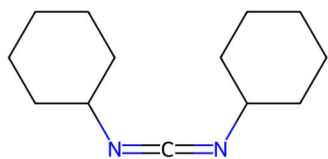
BASIC REAGENT



Original Deck

COPPER BROMIDE (CuBr)  
溴化铜

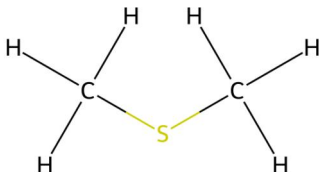
DCC  
二环己基碳二亚胺  
BASIC REAGENT



Original Deck

DCC  
二环己基碳二亚胺

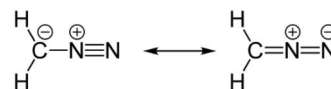
DMS  
二甲硫醚  
BASIC REAGENT



Original Deck

DMS  
二甲硫醚

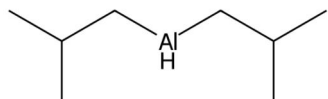
DIAZOMETHANE (CH<sub>2</sub>N<sub>2</sub>)  
重氮甲烷  
BASIC REAGENT



Original Deck

DIAZOMETHANE (CH<sub>2</sub>N<sub>2</sub>)  
重氮甲烷

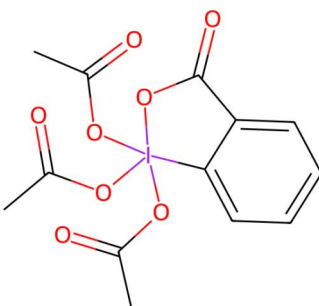
DIBAH  
二异丁基氢化铝  
BASIC REAGENT



Original Deck

DIBAH  
二异丁基氢化铝

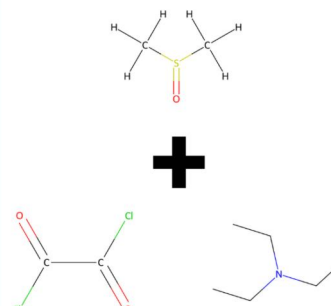
DMP  
二甲基苯酚  
BASIC REAGENT



Original Deck

DMP  
二甲基苯酚

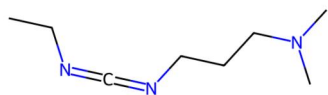
SWERN OXIDATION  
Swern氧化反应  
BASIC REAGENT



Original Deck

SWERN OXIDATION  
Swern氧化反应

EDC  
1-乙基-(3-二甲氨基丙基)碳二亚胺  
BASIC REAGENT



Original Deck

EDC  
1-乙基-(3-二甲氨基丙基)碳二亚胺

IRON (Fe)  
铁  
BASIC REAGENT

Fe

Original Deck

IRON (Fe)  
铁

GRIGNARD REAGENT  
格式试剂  
BASIC REAGENT

RMgBr

One step addition onto the reactant

Original Deck

GRIGNARD REAGENT  
格式试剂

HYDROGEN (H<sub>2</sub>)

氢

BASIC REAGENT

H<sub>2</sub>

Original Deck



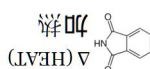
Δ (HEAT)

加热

BASIC REAGENT



Original Deck



hν (LIGHT)

光

BASIC REAGENT

ATOMIC STRUCTURE

$$E = h\nu$$

$$c = \lambda\nu$$

$$F_{\text{coulombic}} \propto \frac{q_1q_2}{r^2}$$

$$E = \text{energy}$$

$$\nu = \text{frequency}$$

$$\lambda = \text{wavelength}$$

$$F = \text{force}$$

$$q = \text{charge}$$

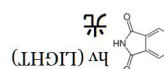
$$r = \text{separation}$$

$$\text{Planck's constant, } h = 6.626 \times 10^{-34} \text{ J s}$$

$$\text{Speed of light, } c = 2.998 \times 10^8 \text{ m s}^{-1}$$

$$\text{Avogadro's number} = 6.022 \times 10^{23} \text{ mol}^{-1}$$

Original Deck



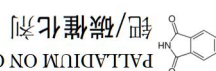
PALLADIUM ON CARBON (Pd/C)

钯/碳催化剂

BASIC REAGENT

Pd/C

Original Deck



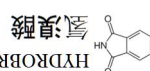
HYDROBROMIC ACID (HBr(aq))

氢溴酸

BASIC REAGENT

HBr

Original Deck



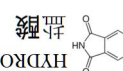
HYDROCHLORIC ACID (HCl(aq))

盐酸

BASIC REAGENT

HCl

Original Deck



HYDROIODIC ACID (HI(aq))

氢碘酸

BASIC REAGENT

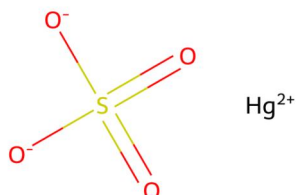
HI

Original Deck

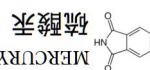
MERCURY SULFATE (HgSO<sub>4</sub>)

硫酸汞

BASIC REAGENT

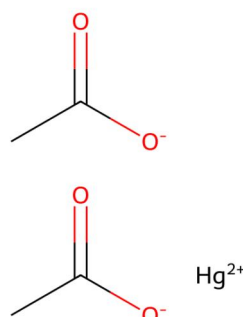


Original Deck

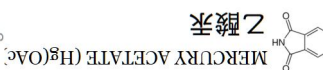
MERCURY ACETATE (Hg(OAc)<sub>2</sub>)

乙酸汞

BASIC REAGENT



Original Deck



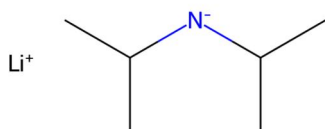




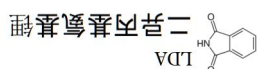


LDA  
二异丙基氨基锂

BASIC REAGENT



Original Deck



LITHIUM (Li)  
锂

BASIC REAGENT

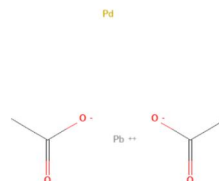
Li

Original Deck



LINDLAR'S CATALYST  
林德拉催化剂

BASIC REAGENT

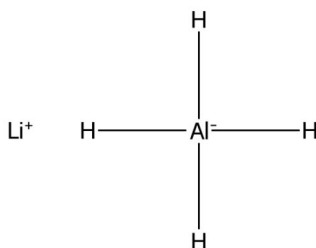


Original Deck



LiAlH<sub>4</sub>  
氢化铝锂

BASIC REAGENT

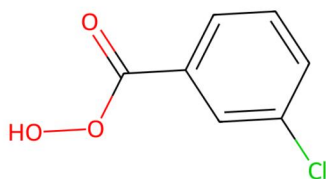


Original Deck

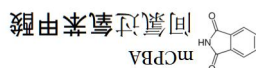


mCPBA  
间氯过氧苯甲酸

BASIC REAGENT



Original Deck

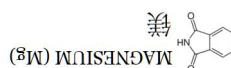


MAGNESIUM (Mg)  
镁

BASIC REAGENT

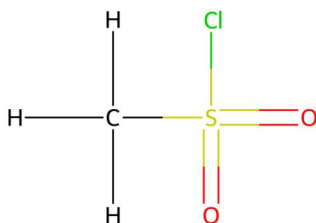
Mg

Original Deck



MsCl  
甲基磺酰氯

BASIC REAGENT

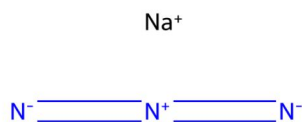


Original Deck

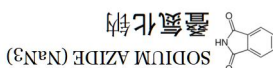


SODIUM AZIDE (NaN<sub>3</sub>)  
叠氮化钠

BASIC REAGENT



Original Deck



SODIUM (Na)  
钠

BASIC REAGENT

Na

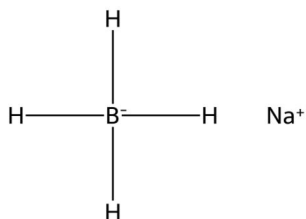
Original Deck





NaBH<sub>4</sub>  
硼氢化钠

BASIC REAGENT



Original Deck

硼氢化钠

NaBH<sub>4</sub>



SODIUM HYDRIDE (NaH)  
氢化钠

BASIC REAGENT



Original Deck

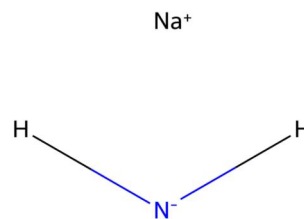
氢化钠

SODIUM HYDRIDE (NaH)



SODIUM AMIDE (NaNH<sub>2</sub>)  
氨基钠

BASIC REAGENT



Original Deck

氨基钠

SODIUM AMIDE (NaNH<sub>2</sub>)



SODIUM HYDROXIDE (NaOH)  
氢氧化钠

BASIC REAGENT



Original Deck

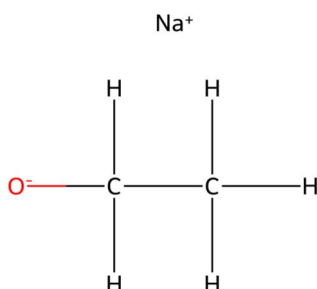
氢氧化钠

SODIUM HYDROXIDE (NaOH)



NaOEt  
乙醇钠

BASIC REAGENT



Original Deck

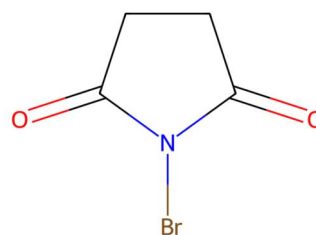
乙醇钠

NaOEt



NBS  
N-溴代丁二酰亚胺

BASIC REAGENT



Original Deck

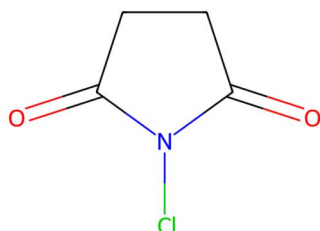
N-溴代丁二酰亚胺

NBS



NCS  
N-氯代丁二酰亚胺

BASIC REAGENT



Original Deck

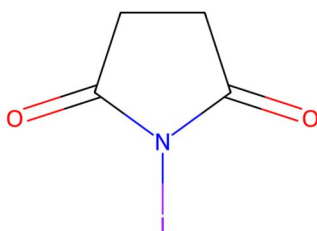
N-氯代丁二酰亚胺

NCS



NIS  
N-碘代丁二酰亚胺

BASIC REAGENT



Original Deck

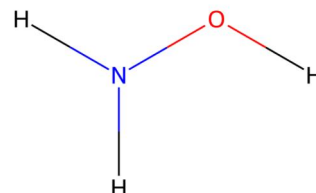
N-碘代丁二酰亚胺

NIS



NH<sub>2</sub>OH  
羟胺

BASIC REAGENT



Original Deck

羟胺

NH<sub>2</sub>OH

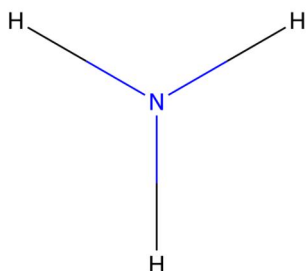




AMMONIA (NH<sub>3</sub>)

氨 或 氨水

BASIC REAGENT



Original Deck



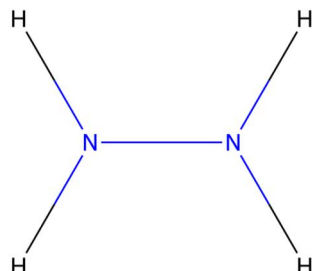
AMMONIA (NH<sub>3</sub>)  
氨 或 氨水



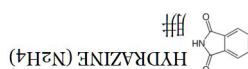
HYDRAZINE (N<sub>2</sub>H<sub>4</sub>)

肼

BASIC REAGENT



Original Deck



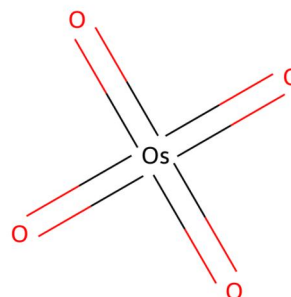
HYDRAZINE (N<sub>2</sub>H<sub>4</sub>)  
肼



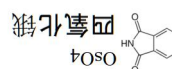
OsO<sub>4</sub>

四氧化锇

BASIC REAGENT



Original Deck



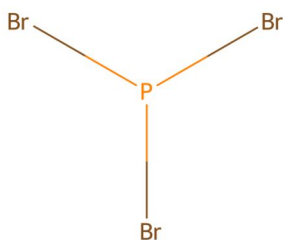
四氧化锇  
OsO<sub>4</sub>



PBr<sub>3</sub>

三溴化磷

BASIC REAGENT



Original Deck



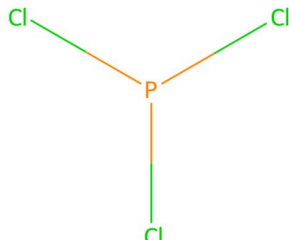
三溴化磷  
PBr<sub>3</sub>



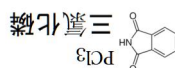
PCl<sub>3</sub>

三氯化磷

BASIC REAGENT



Original Deck



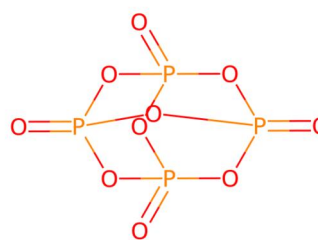
三氯化磷  
PCl<sub>3</sub>



P<sub>2</sub>O<sub>5</sub>

五氧化二磷

BASIC REAGENT



Original Deck



五氧化二磷  
P<sub>2</sub>O<sub>5</sub>



PLATINUM (Pt)

铂

BASIC REAGENT

Pt

Original Deck



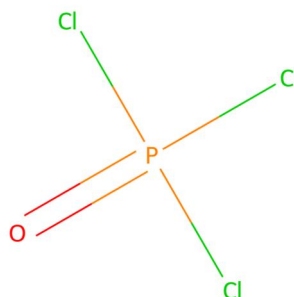
铂  
PLATINUM (Pt)



POCl<sub>3</sub>

三氯氧磷

BASIC REAGENT



Original Deck



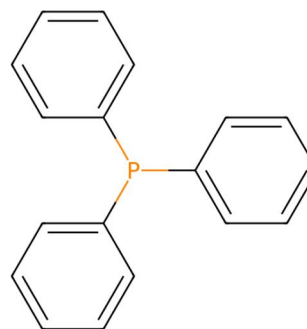
三氯氧磷  
POCl<sub>3</sub>



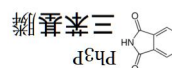
Ph<sub>3</sub>P

三苯基膦

BASIC REAGENT



Original Deck



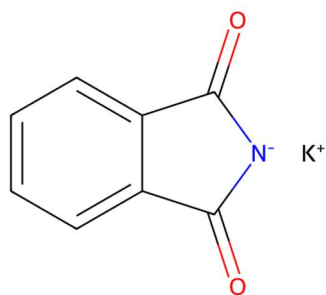
三苯基膦  
Ph<sub>3</sub>P



POTASSIUM PHATHALIMIDE

邻苯二甲酰亚胺钾

BASIC REAGENT



Original Deck

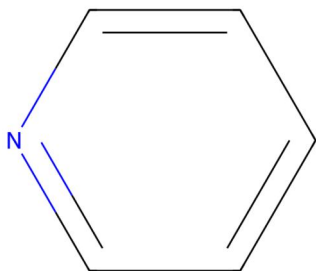
邻苯二甲酰亚胺钾



PYRIDINE

吡啶

BASIC REAGENT



Original Deck

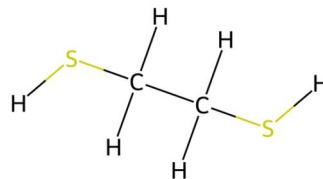
吡啶



EDT

1,2-乙二硫醇

BASIC REAGENT



Original Deck

1,2-乙二硫醇



RANEY'S NICKEL

兰尼镍

BASIC REAGENT

Ni-Al

Original Deck

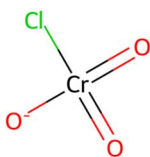
兰尼镍



PCC

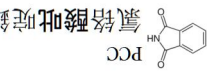
氯铬酸吡啶鎓盐

BASIC REAGENT



Original Deck

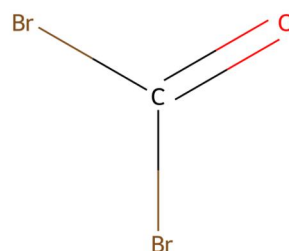
氯铬酸吡啶鎓盐



SOBr<sub>2</sub>

亚硫酸溴

BASIC REAGENT



Original Deck

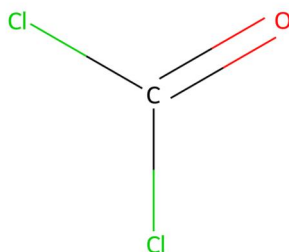
亚硫酸溴



SOCl<sub>2</sub>

亚硫酸氯 (氯化亚砷)

BASIC REAGENT



Original Deck

亚硫酸氯 (氯化亚砷)



TIN (Sn)

锡

BASIC REAGENT

Sn

Original Deck

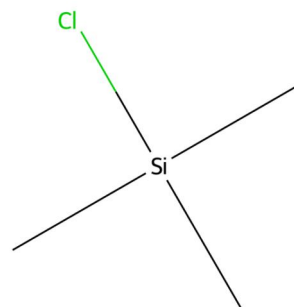
锡



TMSCl

三甲基氯硅烷

BASIC REAGENT



Original Deck

三甲基氯硅烷

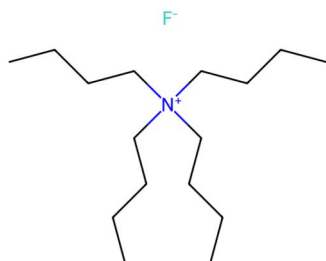




TBAF

四丁基氟化铵

BASIC REAGENT



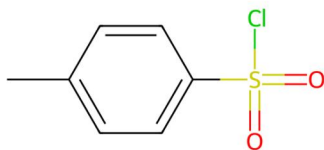
Original Deck



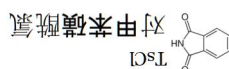
TsCl

对甲苯磺酰氯

BASIC REAGENT



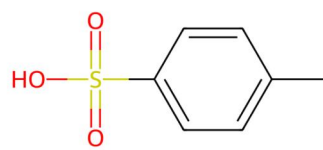
Original Deck



TsOH

对甲苯磺酸

BASIC REAGENT



Original Deck



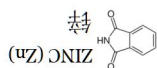
ZINC (Zn)

锌

BASIC REAGENT

Zn

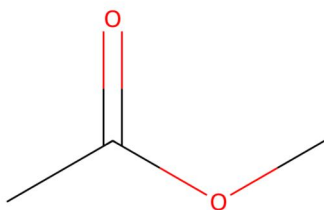
Original Deck



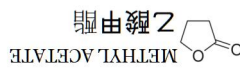
METHYL ACETATE

乙酸甲酯

PDT



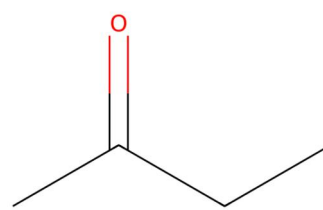
Original Deck



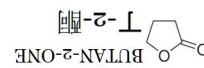
BUTAN-2-ONE

丁-2-酮

PDT



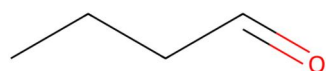
Original Deck



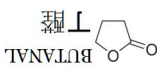
BUTANAL

丁醛

PDT



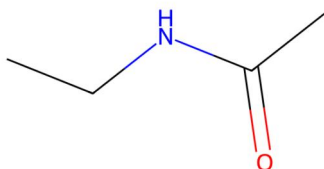
Original Deck



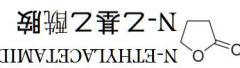
N-ETHYLACETAMIDE

N-乙基乙酰胺

PDT



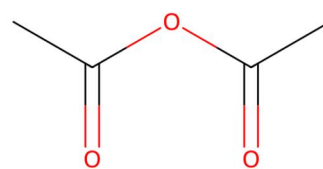
Original Deck



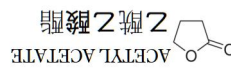
ACETYL ACETATE

乙酰乙酸酯

PDT



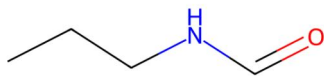
Original Deck





N-PROPYLFORMAMIDE  
N-丙基甲酰胺

PDT



Original Deck

N-PROPYLFORMAMIDE  
N-丙基甲酰胺



BUTANE  
丁烷

PDT



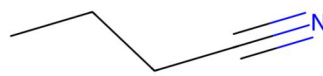
Original Deck

BUTANE  
丁烷



BUTANENITRILE  
丁腈

PDT



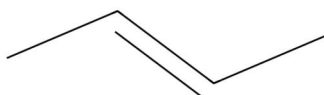
Original Deck

BUTANENITRILE  
丁腈



BUT-2-ENE  
顺-2-丁烯

PDT



Original Deck

BUT-2-ENE  
顺-2-丁烯



BUT-1-ENE  
丁-1-烯

PDT



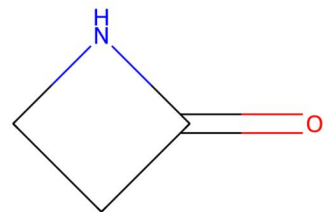
Original Deck

BUT-1-ENE  
丁-1-烯



AZETIDIN-2-ONE  
氮杂环丁烷-2-酮

PDT



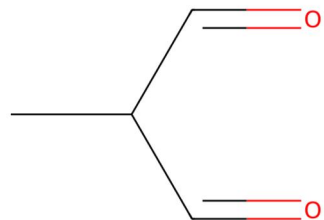
Original Deck

AZETIDIN-2-ONE  
氮杂环丁烷-2-酮



2-METHYLPROPANEDIAL  
2-甲基丙二醛

PDT



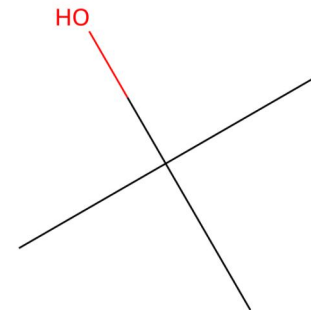
Original Deck

2-METHYLPROPANEDIAL  
2-甲基丙二醛



2-METHYLPROPAN-2-OL  
2-甲基-2-丙醇

PDT



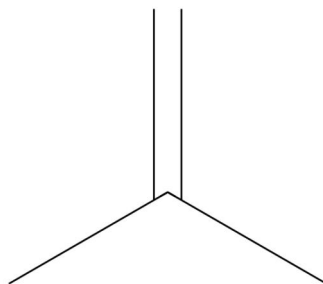
Original Deck

2-METHYLPROPAN-2-OL  
2-甲基-2-丙醇



2-METHYLPROP-1-ENE  
2-甲基丙-1-烯

PDT

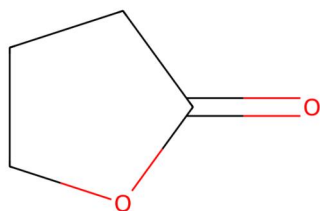


Original Deck

2-METHYLPROP-1-ENE  
2-甲基丙-1-烯

OXOLAN-2-ONE  
氧杂环戊酮

PDT

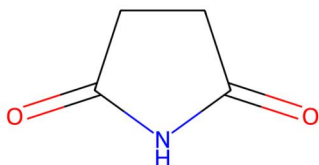


Original Deck

OXOLAN-2-ONE  
氧杂环戊酮

PYRROLIDINE-2,5-DIONE  
吡咯烷-2,5-二酮

PDT

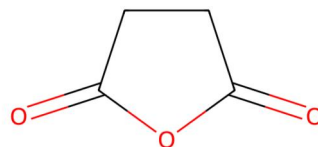


Original Deck

PYRROLIDINE-2,5-DIONE  
吡咯烷-2,5-二酮

OXOLANE-2,5-DIONE  
氧杂环戊烷-2,5-二酮

PDT

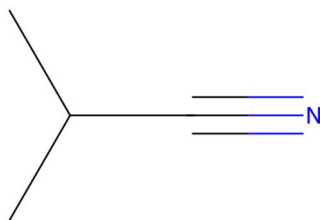


Original Deck

OXOLANE-2,5-DIONE  
氧杂环戊烷-2,5-二酮

2-METHYLPROPANENITRILE  
2-甲基丙腈

PDT

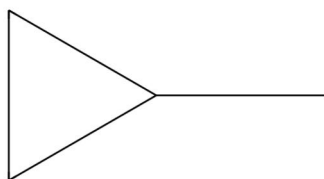


Original Deck

2-METHYLPROPANENITRILE  
2-甲基丙腈

METHYLCYCLOPROPANE  
甲基环丙烷

PDT

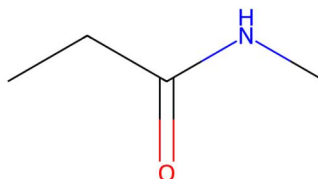


Original Deck

METHYLCYCLOPROPANE  
甲基环丙烷

N-METHYLPROPANAMIDE  
N-甲基丙酰胺

PDT

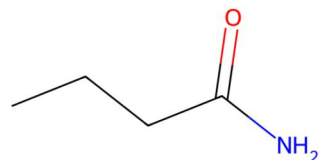


Original Deck

N-METHYLPROPANAMIDE  
N-甲基丙酰胺

BUTANAMIDE  
丁酰胺

PDT

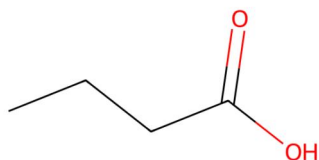


Original Deck

BUTANAMIDE  
丁酰胺

BUTANOIC ACID  
丁酸

PDT

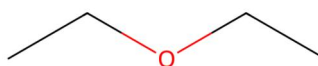


Original Deck

BUTANOIC ACID  
丁酸

ETHOXYETHANE  
乙氧乙烷

PDT



Original Deck

ETHOXYETHANE  
乙氧乙烷

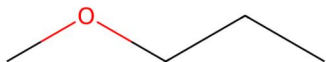




1-METHOXYPROPANE

1-甲氧基丙烷

PDT



Original Deck

1-METHOXYPROPANE  
1-甲氧基丙烷



BUTA-1,3-DIENE

丁-1,3-二烯

PDT



Original Deck

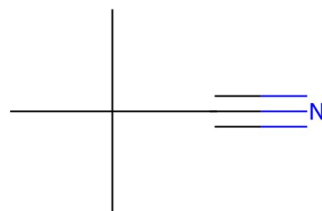
BUTA-1,3-DIENE  
丁-1,3-二烯



2,2-DIMETHYLPROPANENITRI

2,2-二甲基丙腈

PDT



Original Deck

2,2-DIMETHYLPROPANENITRILE  
2,2-二甲基丙腈