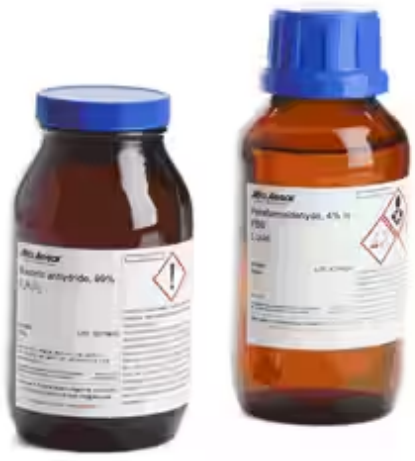
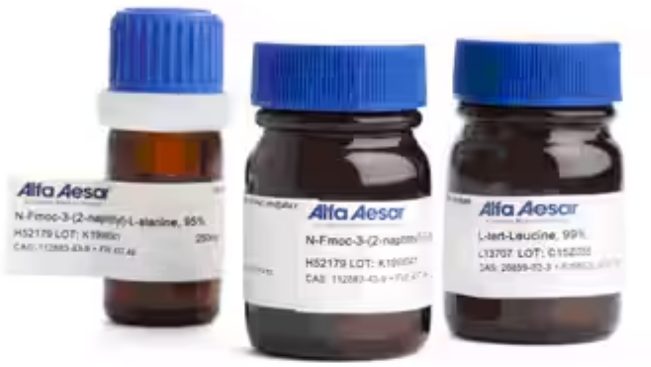
Nitrogen Compounds



Nitrogen containing organic compounds represents the second most abundant reservoir of nitrogen on the surface of the Earth. Nitrogen compounds are essential building blocks of living organisms. Amino acids, nucleic acids, and nucleo bases are key biological nitrogen compounds. Nature abounds with nitrogen compounds, many of which occur in plants in the form of alkaloids.

Amines and Derivatives

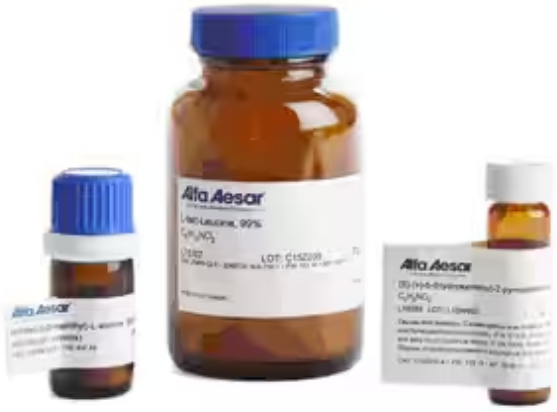


Amines are chemical compounds having the general formula R3N (R is alkyl or aryl). Amines are derivatives of ammonia in which one or more of the hydrogen atoms are replaced by an alkyl or aryl group. Depending on the number of R groups (alkyl or aryl group), amines are classified as primary, secondary and tertiary amines. In organic chemistry, amines are used in the synthesis of numerous derivatives which are endowed with useful properties, such as amino alcohols, amino acids, amides, lactams, imino derivatives, azo compounds, hydrazines, hydrazones, and ureas.

Amines and its derivatives have a wide range of biological functions, and play an essential role in biology in the form of an amino acid. Amino acids are the building blocks of proteins and peptides. Apart from proteins, amino acids perform critical roles in processes such as neurotransmitter transport and biosynthesis. In pharmaceutical research, amine derivatives play a vital role. Many drugs contain amino compounds or their derivatives, which include antiviral and antibacterial drugs.

In the chemical industry, amino compounds and other derived compounds are used for a number of applications. Amines act as good ligands in coordination chemistry. Amides are used in fibers and thermoplastics. Most of the azo compounds are employed as dyes and pigments in the textile industry. Some of the azo compounds are also used as indicators. Hydrazide compounds are used in paint and adhesive thermoset applications. Hydrazine derivatives are used as foaming agents and oxygen scavengers.

Azides

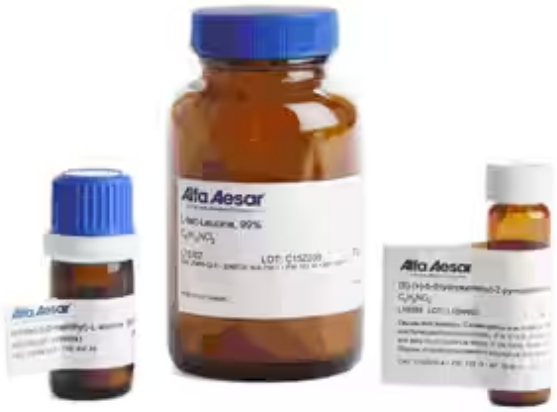


Since the discovery of organic azides by Peter Grie more than 150 years ago, numerous syntheses of energy-rich azide molecules have been developed. In more recent times in particular, the use of azides in peptide chemistry, combinatorial chemistry, and heterocyclic synthesis has been extensively explored. Organic azides have assumed an important position at the interface between chemistry, biology, medicine, and materials science.

H51063	1,10-Diaza-18-crown-6, 96%
H33524	11-Azidoundecyltriethoxysilane, 95%
H34298	11-Azidoundecyltrimethoxysilane, 94%
H27719	1,1'-(Azodicarbonyl)dipiperidine, 97%
H33784	12-Azidododecylphosphonic acid, 95%
H52305	(±)-1,4-Diazabicyclo[4.4.0]decane, 98+%
H51064	1-Aza-15-crown-5, 97%
H51065	1-Aza-18-crown-6, 95%
H27515	1-Chlorophthalazin-4-one, 98%
H52206	2-(3-Pyridyl)-7-azabenzimidazole, 97%
L19383	2,4,6-Triisopropylbenzenesulfonyl azide, 98%, stab. with ca 10% water
H58386	2-(Azidomethyl)benzeneboronic acid pinacol ester, 95%
H52201	3-(7-Aza-2-benzimidazolyl)benzamidoxime, 97%
A17380	3-Phenylazo-2,4-pentanedione, 98%
A12232	4-(4-Nitrophenylazo)resorcinol, 90+%
H56028	4,5-Diazafluoren-9-one, 98%
H52208	4-(7-Aza-2-benzimidazolyl)benzamidoxime, 97%
L15916	4-Acetamidobenzenesulfonyl azide, 97%
H58401	4-(Azidomethyl)benzeneboronic acid pinacol ester, 95%

B25670	4-Bromobenzenediazonium tetrafluoroborate, 96%
H63825	8-Oxa-3-azabicyclo[3.2.1]octane hydrochloride, 97%
B20021	Azoxybenzene, 98+%
32635	Benzyl azide, 94%
A12124	Diphenylphosphonic azide, 97%
H60336	Phenylazoformic acid 2-phenylhydrazide
H58558	Potassium 2-(azidomethyl)phenyltrifluoroborate, 95%
H58846	Potassium 4-(azidomethyl)phenyltrifluoroborate, 95%
H52554	(R)-1,4-Diazabicyclo[4.3.0]nonane, 97%
H52295	(S)-1,4-Diazabicyclo[4.3.0]nonane, 98+%
14314	Sodium azide, 99%
H52417	(S,S)-3-Benzyl-1,4-diazabicyclo[4.3.0]nonane, 97%
H52432	(S,S)-3-Isobutyl-1,4-diazabicyclo[4.3.0]nonane, 97%
L00173	Trimethylsilyl azide, 94%

Azo Compounds



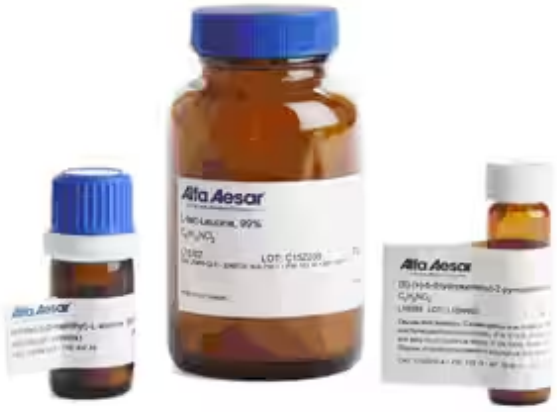
Organic compounds having the functional group R-N=N-R' are called azo compounds. Aryl azo compounds are usually stable. In contrast, most alkyldiazo compounds are explosive. Unsymmetrical and symmetrical azo derivatives were prepared by diazotisation-coupling reactions. Aromatic azo compounds can be synthesized by azo coupling reactions. The oxidation of hydrazines (R-NH-NH-R') also gives azo compounds.

H30087	1,1'-Thiocarbonyldi-2(1H)-pyridone, 95%
A17475	1-(2-Pyridylazo)-2-naphthol, 98%
B24011	1-(2-Thiazolylazo)-2-naphthol, 98%
H26671	1,4,7,10-Tetraazacyclotridecane
H26813	1,4,7,10-Tetrakis[2-(ethoxycarbonyl)ethyl]-1,4,7,10-tetraazacyclododecane
H26792	1,4,7,10-Tetrakis(aminocarbonylmethyl)-1,4,7,10-tetraazacyclododecane
H26736	1,4,7-Tris(tert-butoxycarbonylmethyl)-1,4,7,10-tetraazacyclododecane
A11516	1,4,8,11-Tetraazacyclotetradecane, 98+%
H26674	1,4,8,11-Tetraazatricyclo[9.3.1.1(4,8)]hexadecane
H26755	1,4,8,11-Tetrakis(ethoxycarbonylmethyl)-1,4,8,11-tetraazacyclotetradecane
30854	1,4,8,11-Tetramethyl-1,4,8,11-tetraazacyclotetradecane
H26741	1,4,8-Tri-Boc-1,4,8,11-tetraazacyclotetradecane
B24600	1-(4-Nitrophenylazo)-2-naphthol
A18560	1,5,9-Triazacyclotridecane trihydrobromide, 98%
H50825	1-(8-Azabicyclo[3.2.1]oct-3-yl)-2-methylbenzimidazole, 99%
H50827	1-(8-Azabicyclo[3.2.1]oct-3-yl)benzimidazole, 98%
A12449	1,8-Diazabicyclo[5.4.0]undec-7-ene, 98+%
L17569	1,8-Diazabicyclo[5.4.0]undec-7-ene hydrotribromide, 98%
H26643	1,8-Dibenzyl-1,4,8,11-tetraazacyclotetradecane

H26525	1-Benzyl-1,4,7,10-tetraazacyclododecane
H26610	1-Benzyl-1,4,8,11-tetraazacyclotetradecane
H50494	1-Benzyl-4-chlorophthalazine, 99%
H60805	1-Diazo-2-naphthol-4-sulfonic acid, 76%
H32573	2,3-Difluoro-4-hydroxyazobenzene, 98+%
A10333	2-(4-Hydroxyphenylazo)benzoic acid, 97%
B21886	3-Phenylazo-2,6-diaminopyridine hydrochloride, 98+%
L09667	4-(2-Pyridylazo)resorcinol, 98%
43629	4-(2-Pyridylazo)resorcinol, ACS
B23195	4-(2-Thiazolylazo)resorcinol, 97%
H59611	4,4'-Azobis(4-cyanovaleric acid), 98%, cont. ca 18% water
B21297	4,4'-Bis(n-hexyloxy)azoxybenzene, 98%
L03743	4,4'-Diaminoazobenzene, 95%
B20839	4,4'-Diethoxyazobenzene, 97%
H27830	4-(4-Dimethylaminophenylazo)benzoic acid sodium salt, indicator grade
H64755	4,5,6,7-Tetrahydro-5-azabenzimidazole hydrochloride, 95%
L11965	4-Aminoazobenzene-4'-sulfonic acid sodium salt, tech. 90%
B25051	4-Azabenzimidazole, 98%

B23915	4-(Diethylamino)azobenzene, 98%
A18575	4-Dimethylamino-4'-methylazobenzene, 98%
L06057	4-Dimethylaminoazobenzene-4'-sulfonyl chloride, 98+%
H55827	4-Methoxybenzenediazonium tetrafluoroborate, 98%
H55315	4-Nitrobenzenediazonium tetrafluoroborate, 97%
A18612	4-Phenylazodiphenylamine, 96%
L00879	4-Phenylazomaleinanil, 95%
B25198	4-Phenylazophenol, 98%
L06930	5-Azabenzimidazole, 98%
A14167	6-Aza-2-thiothymine, 98%
H34134	6-Boc-1-oxa-6-azaspiro[2.5]octane, 97%
H26609	7-Aza-1H-benzotriazol-1-yloxytris(dimethylamino)phosphonium hexafluorophosphate, 98+%
A10425	Azobenzene, 97+%

Carbazide

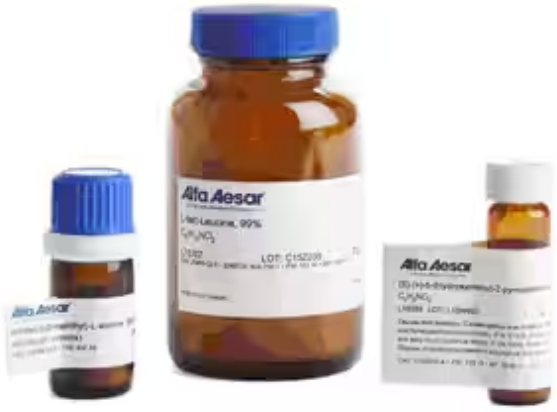


Carbazide compounds are urea derivatives having the general formula RNH-NH(C=O)NH-NHR. These compounds can be derived from the condensation of corresponding carbonic acid with hydrazine derivatives. Reaction of a carbazide with an aldehyde or ketone produces a carbazone.

Diphenylcarbazide is used as analytical reagent in spectrophotometric analysis of chromium III and osmium as it develops color upon complex formation with these metal ions. It is also used as an indicator in the titration of iron with dichromate. Some of the aromatic carbazides are used as photoreducing agents. Some carbazides are high energy materials, for example, the carbazide prepared from the reaction of phosgene with azide is an explosive.

A14060	1,5-Diphenylcarbazide, 97+%
31390	1,5-Diphenylcarbazide, ACS
A14548	Methyl carbazate, 98%

Carboxylic Amides and Lactams



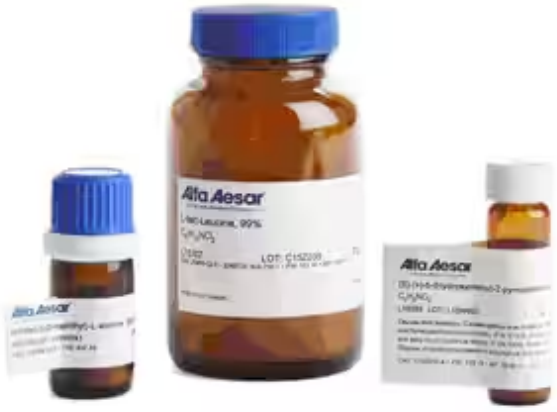
An amide, or an acid amide, is a compound with the functional group □C(=O)N(R1R2). Cyclic amides are called lactams. Lactam compounds would be either secondary or tertiary amides. Lactams, depending on the ring size, bear the name alpha-lactam (3 ring atoms), beta-lactam (4 ring atoms), gamma-lactam (5 ring atoms), delta-lactam (6 ring atoms) or epsilon-lactam (7 ring atoms). The beta-lactam ring is part of the core structure of several antibiotic families, for example, penicillins, cephalosporins, carbapenems, and monobactams. Amides undergo various chemical reactions usually through an attack on the carbonyl group. There are many renowned organic reactions which involve amides, including, the Hofmann rearrangement and the Vilsmeier□Haack reaction.

A18585	1-(3-Methoxybenzoyl)-2-(1-naphthoyl)hydrazine, 98%
H26792	1,4,7,10-Tetrakis(aminocarbonylmethyl)-1,4,7,10-tetraazacyclododecane
A18584	1-(4-Methoxybenzoyl)-2-(1-naphthoyl)hydrazine, 98%
H55419	1-Boc-L-prolinamide, 97%
H50081	1-Boc-pyrrolidine-3-carboxamide, 96%
H54647	1-Chloroacetyl-2-(trifluoroacetyl)hydrazine, 97%
H32069	2-(1-Boc-4-piperidinyloxy)-N-cyclopropylacetamide, 96%
H32990	2-(1-Boc-4-piperidinyloxy)-N-methylacetamide, 96%
H32708	2-(1-Boc-4-piperidinyloxy)-N,N-dimethylacetamide, 96%
H50015	2-(2,2,2-Trimethylacetamido)pyridine-3-boronic acid pinacol ester, 98%
H32011	2,2,2-Trifluoro-4'-methoxyacetanilide, 97%
A14451	2,2,2-Trifluoroacetamide, 97%
B23851	2,2,2-Trifluoro-N-methylacetamide, 98%
A11319	2,2,2-Trimethylacetamide, 98+%
B21566	2,2,3,3,3-Pentafluoropropionamide, 97%
A16817	2-(2,4-Dichlorophenoxy)propionic acid hydrazide, 98%
H57465	2-(2,6-Dimethylphenylcarbamoyl)benzoic acid, 97%
B25223	2-(2-Chlorophenoxy)acetamide, 97%

H66271	2-(2-Cyanophenoxy)acetamide, 98%
L00315	2,2-Dichloroacetamide, 98+%
H31817	2,2-Difluoro-N-(2-hydroxyethyl)propionamide, 97%
H25833	2,2-Difluoro-N-methoxy-N-methylacetamide, 95%
H33510	2,2-Dimethyl-N-(3-pyridyl)propionamide, 98%
L08847	2,2-Di-n-propylacetamide, 97%
L08485	2,2-Diphenylacetamide, 98%
A18588	2-(2-Naphthoyl)-1-(m-toluoyl)hydrazine, 98%
A18590	2-(2-Naphthoyl)-1-(p-toluoyl)hydrazine, 98%
H33988	2-(2-Phthalimidoethoxy)acetic acid, 97%
B25254	2,2'-Thiobisacetamide, 97%
A18397	2,3,4,5,6-Pentafluorobenzamide, 99%
B22958	2,3,4,5-Tetrafluorobenzamide, 97+%
L11304	2,3,4-Trifluorobenzamide, 99%
L13043	2,3,6-Trifluorobenzamide, 97%
L10978	2,3-Dibromopropionamide, 97%
A17265	2,3-Dichlorobenzamide, 98%
B24254	2,3-Difluoro-4-methylbenzamide, 97+%
B20542	2,3-Difluorobenzamide, 97%

	A13585	2,3-Dimethylbenzamide, 98%
	H51933	2-([4-(4-Morpholinylcarbonyl)phenyl]dimethylsilyl)benzyl alcohol, 95%
	B23366	2,4-Bis(trifluoromethyl)benzamide, 97+%
	L12711	2-(4-Chlorophenoxy)thioacetamide, 97%
	H26806	2-(4-Chlorophenylsulfonyl)thioacetamide, 97%
	B24401	2,4-Dichloro-5-fluorobenzamide, 97+%
	B21795	2',4'-Dichloroacetanilide, 98%
	B24983	2',4'-Dichloro-N-methylacetanilide, 97%
	A15513	2,4-Dichlorophenoxyacetic acid hydrazide, 97%
	H26654	2,4-Dichlorothiobenzamide, 97%
	A10490	2',4'-Difluoroacetanilide, 98%
	A10375	2,4-Difluorobenzamide, 97%
	B24935	2',4'-Difluoro-N-methylacetanilide, 97%

Diazo Compounds

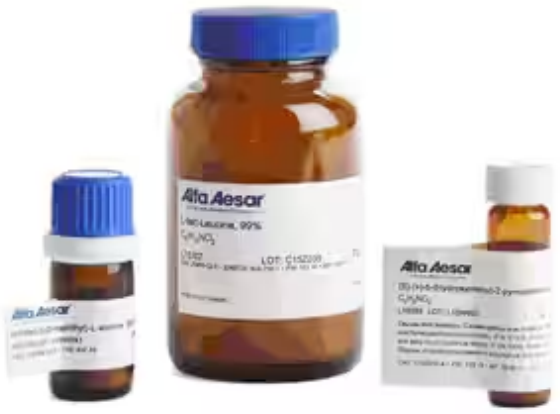


Diazo compounds have two linked nitrogen atoms (azo) as a terminal functional group. The general formula is $R_2C=N$. e.g.: Diazomethane is a diazo compound. The first step of Arndt-Eistert synthesis involves the preparation of diazo ketone. Arndt-Eistert synthesis is a popular method of producing beta-amino acids from alpha-amino acids. In the presence of a nucleophile and a metal catalyst (Ag_2O), diazoketones form the desired acid.

A18103	4-(2-Pyridylazo)resorcinol monosodium salt monohydrate
H66952	4-[(4-Aminophenyl)azo]-2-chlorophenol, 95%
A11374	Amido Black 10B
B24387	Beryllon II
A16674	Bismarck Brown Y
A14642	Brilliant Crocein
B23459	Calconcarboxylic acid
B21482	Calmagite, indicator grade
A14242	Chicago Sky Blue 6B
A13259	Chlorazol Black E
L11330	Chromotrope 2B
A17519	Chromotrope 2R
B22328	Chromotrope FB
B24310	Congo Red, indicator grade
B21693	Direct Red 80
A17536	Eriochrome Black T
A18367	Ethyl Red
A16774	Evans Blue

A17391	Janus Green B
A17527	Metanil Yellow
A17604	Methyl Orange
A16690	Methyl Red
36682	Methyl Red, ACS
36668	Methyl Red hydrochloride, ACS
A17455	Methyl Red sodium salt
44161	Methyl Red sodium salt, 0.02% w/v aq. soln.
36667	Methyl Red sodium salt, ACS
A12159	Methyl Violet 2B
B21145	Methyl Yellow, indicator
A16933	SPADNS
A17613	Sudan II
A18318	Sudan III
A12181	Sudan IV
A10486	Sulfonazo III salt
A17682	Tartrazine
38708	Tropaeolin O

Hydrazide



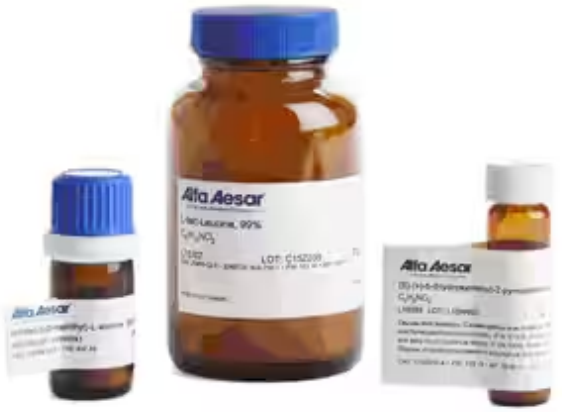
Organic hydrazides have the functional group characterized by a nitrogen to nitrogen covalent bond with four substituents with at least one of them being an acyl group. The general structure for a hydrazide is $(R_1{=}O)R_2\text{-}N\text{-}N\text{-}R_3R_4$. Hydrazide derivatives have been reported to possess anticonvulsant, antioxidant, hormone antagonist, analgesic, anti-inflammatory, antiplatelet, antimalarial, antimicrobial, antimycobacterial, antitumor, vasodilator, antiviral and antitrypanosomal activities.

L01107	1-Naphthaleneacethydrazide, 98+%
L07942	1-Naphthoic hydrazide, 98+%
17976	2,4,6-Triisopropylbenzenesulfonyl hydrazide
B24521	2-(4-Chloro-2-methylphenoxy)acetic acid hydrazide, 96%
A12803	2,4-Dichlorobenzhydrazide, 97%
L09918	2,4-Dihydroxybenzhydrazide, 95%
A14778	2,5-Dichlorobenzhydrazide, 98+%
H50712	2,5-Dimethoxybenzhydrazide
L00937	2-Bromobenzhydrazide, 98+%
A11361	2-Chlorobenzhydrazide, 98+%
A13582	2-Chlorophenoxyacetic acid hydrazide, 98%
B24921	2-Fluorobenzhydrazide, 98%
A13630	2-Furoic acid hydrazide, 98%
L08980	2-Hydroxy-3-methylbenzhydrazide, 98%
A14218	2-Hydroxybenzhydrazide, 98+%
A13619	2-Methoxybenzhydrazide, 98+%
L08038	2-Naphthoic hydrazide, 98%
B21330	2-Nitrobenzhydrazide, 98%
B20055	3,4,5-Trimethoxybenzhydrazide, 98%

	B21746	3,4-Dihydroxybenzhydrazide, 97%
	A10404	3,4-Dimethoxybenzhydrazide, 98+%
	A13492	3,5-Bis(trifluoromethyl)benzhydrazide, 97%
	B22383	3,5-Dichlorobenzhydrazide, 97%
	L11471	3,5-Dihydroxybenzhydrazide, 98%
	A14597	3-Aminophthalhydrazide, 98%
	L15205	3-Aminophthalhydrazide monosodium salt, 98+%
	A19628	3-Bromobenzhydrazide, 98+%
	L01071	3-Chlorobenzhydrazide, 98+%
	L06330	3-Ethoxybenzhydrazide, 98%
	L04357	3-Hydroxybenzhydrazide, 98+%
	B20956	3-Methoxybenzhydrazide, 98+%
	A18748	3-Methyl-4-nitrobenzhydrazide, 97%
	B20800	3-Nitrobenzhydrazide, 98+%
	A18918	4-Bromobenzhydrazide, 98+%
	A11911	4-Chlorobenzhydrazide, 98%
	L05433	4-Ethoxybenzhydrazide, 98+%
	H53496	4-Fluorobenzhydrazide, 97%
	L10649	4-Fluorophenoxyacetic acid hydrazide, 98+%

A12702	4-Hydroxybenzhydrazide, 98%
A13015	4-Methoxybenzhydrazide, 98+%
A13529	4-Methylbenzenesulphonylhydrazide, 97%
A18016	4-Nitrobenzhydrazide, 98+%
A13224	4-tert-Butylbenzhydrazide, 98+%
L05724	4-(Trifluoromethyl)benzhydrazide, 98%
L12436	4-(Trifluoromethyl)phenylhydrazine, 95%
H61959	5-Bromothiophene-2-carboxylic acid hydrazide, 97%
B23971	Benzenesulfonyl hydrazide, 98%
A12268	Benzhydrazide, 98%
L11357	Benzo[b]thiophene-2-carboxylic hydrazide, 97%
B24370	Cyanoacetic acid hydrazide, 98%

Hydrazines



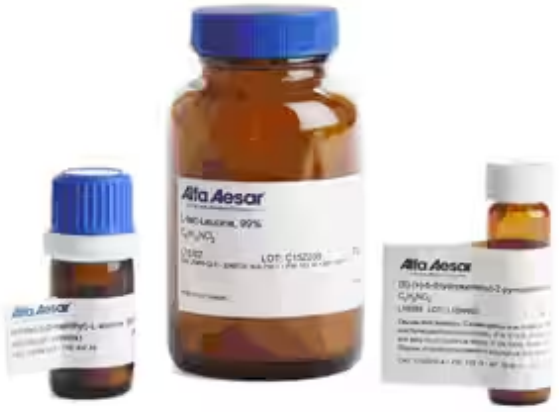
Hydrazine derivatives are class of organic compounds having the general chemical formula RNHNHR. Hydrazine is an inorganic compound from which hydrazine derivatives are prepared by substituting the hydrogens with suitable substitutions. Monomethylhydrazine (MMH) is a volatile hydrazine used as a rocket propellant.

A11289	1,1-Diphenylhydrazine hydrochloride, 98%
A18585	1-(3-Methoxybenzoyl)-2-(1-naphthoyl)hydrazine, 98%
A18584	1-(4-Methoxybenzoyl)-2-(1-naphthoyl)hydrazine, 98%
B22995	1-Hydrazinophthalazine hydrochloride, 98%
B22440	1-Methyl-1-phenylhydrazine, 97%
B24931	2-(1-Methylhydrazino)-2-imidazoline hydrobromide, 97%
H33643	2-(1-Methylhydrazino)-4-(trifluoromethyl)pyrimidine, 97%
A18588	2-(2-Naphthoyl)-1-(m-toluoyl)hydrazine, 98%
A18590	2-(2-Naphthoyl)-1-(p-toluoyl)hydrazine, 98%
B22600	2,3,5,6-Tetrafluorophenylhydrazine, 97%
A10717	2,3-Dichlorophenylhydrazine hydrochloride, 97%
A16526	2,3-Dimethylphenylhydrazine hydrochloride, 97%
B25669	2,4,6-Trichlorophenylhydrazine, 98%
H26104	2,4,6-Trifluorophenylhydrazine, 97%
L10958	2,4,6-Trimethylphenylhydrazine hydrochloride, 97%
A10943	2,4-Dichlorophenylhydrazine hydrochloride, 98%
A11625	2,4-Difluorophenylhydrazine hydrochloride, 97%
B21009	2,4-Dimethylphenylhydrazine hydrochloride, 95%
L06708	2,5-Dichlorophenylhydrazine, 98%

B21259	2,5-Difluorophenylhydrazine, 97%
L10359	2,5-Difluorophenylhydrazine hydrochloride, 99%
L12496	2,5-Dimethylphenylhydrazine hydrochloride, 98%
B20013	2,6-Dichloro-4-(trifluoromethyl)phenylhydrazine, 97%
A11968	2,6-Dichlorophenylhydrazine hydrochloride, 98+%
H64664	2-Bromo-6-hydrazinopyridine, 98%
B23966	2-Bromophenylhydrazine hydrochloride, 94%
A14136	2-Chlorophenylhydrazine hydrochloride, 97%
A16853	2-Ethylphenylhydrazine hydrochloride, 97%
H53072	2-Fluoro-5-(hydrazinocarbonyl)benzeneboronic acid, 95%
A13716	2-Fluorophenylhydrazine hydrochloride, 98%
B20386	2-Hydrazino-2-imidazoline hydrobromide, 98%
H34273	2-Hydrazino-4-methylquinoline, 96%
H61287	2-Hydrazino-4-(trifluoromethyl)pyrimidine, 97%
L11015	2-Hydrazinobenzoic acid hydrochloride, 97%
A18006	2-Hydrazinobenzothiazole, 97%
H64086	2-Hydrazinopyrazine, 98%
H50700	2-Hydrazinoquinoline, 97%
43793	(2-Hydroxyethyl)hydrazine

	A14781	2-(Trifluoromethyl)phenylhydrazine, 97%
	B25182	2-(Trifluoromethyl)phenylhydrazine hydrochloride, 98%
	A13906	3,4-Dichlorophenylhydrazine hydrochloride, 98+%
	A13027	3,4-Dimethylphenylhydrazine hydrochloride, 98%
	A14971	3,5-Bis(trifluoromethyl)phenylhydrazine, 97%
	H32975	3,5-Bis(trifluoromethyl)phenylhydrazine hydrochloride, 98%
	A15127	3,5-Dichlorophenylhydrazine hydrochloride, 95%
	H26189	3,5-Difluorophenylhydrazine hydrochloride, 97%
	A11336	3,5-Dimethylphenylhydrazine hydrochloride, 97%
	B23510	3-Bromophenylhydrazine hydrochloride, 98%
	H33850	3-Chloro-2-hydrazino-5-(trifluoromethyl)pyridine, 97%
	A10175	3-Chloro-4-fluorophenylhydrazine hydrochloride, 98%

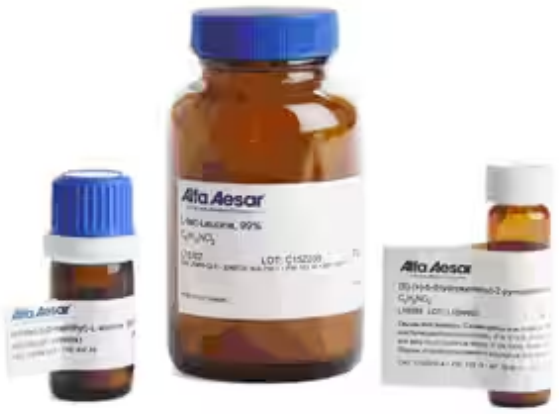
Hydrazones



Hydrazones are organic compounds with the formula, $R^1R^2C{=}NNH_2$. Generally these compounds are formed by the reaction of hydrazine with ketones or aldehydes. The C=N bond of dialkyl hydrazones can be hydrolyzed, oxidized and reduced. Similarly the N-N bond can be reduced to the free amine. Hydrazone derivatives are used to measure the concentration of low molecular weight ketones and aldehydes. Hydrazone is formed in the Enders SAMP/RAMP hydrazone alkylation reaction which is an asymmetric carbon-carbon bond formation reaction accelerated by pyrrolidine chiral auxiliaries. Another familiar reaction which involves the formation of hydrazone is Wolff□Kishner reduction where ketone or aldehyde is reacted with hydrazine to form hydrazone derivative which is finally converted to the corresponding hydrocarbon.

L03625	1,3-Diphenylacetone p-toluenesulfonylhydrazone, 99%
H32013	2-Furaldehyde 2,2-dimethylhydrazone, 98%
H56061	3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate, 98+%
B21706	9-Fluorenone hydrazone, 97%
H53474	Acetophenone p-toluenesulfonylhydrazone, 98%
A12266	Benzophenone hydrazone, 98+%
H53486	Benzophenone p-toluenesulfonylhydrazone, 97%
A10628	Bis(cyclohexanone) oxaldihydrazone, 98%
L06932	Carbonyl cyanide 3-chlorophenylhydrazone, 98%
A12203	Cyclohexanone 2,4-dinitrophenylhydrazone, 99%
H53447	Desoxybenzoin p-toluenesulfonylhydrazone, 97%
H53428	n-Butyrophenone p-toluenesulfonylhydrazone, 97%
H53409	Propionophenone p-toluenesulfonylhydrazone, 97%
B24380	Pyridine-2-carboxaldehyde 4-nitrophenylhydrazone, 98%

Imines & Imino Compounds



Imines are organic compounds having a carbon□nitrogen double bond, in which nitrogen is attached to a hydrogen atom or an organic group. Imine compounds are related to ketones and aldehydes where the oxygen is replaced with -NR group. With respect to the attachment of carbon and nitrogen, imines can be classified as primary or secondary aldimine and primary or secondary ketimine. Imines may serve as either electrophiles or nucleophiles in chemical reactions. Imine compounds can be hydrolyzed to the corresponding amine and carbonyl compound. The imine functional group participates in many reactions which are analogous to the reactions of aldehydes and ketones. Schiff bases can also be referred to as imines.

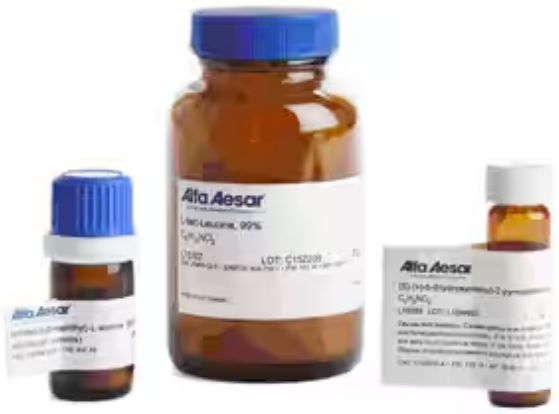
Imino compounds are used as chelating agents in co-ordination chemistry. For example, Salen is a popular chelating ligand used in coordination chemistry and homogeneous catalysis. Imines undergo Aza Diels-Alder reaction to produce tetrahydropyridine derivatives. Imines and their derivatives are well known key intermediates for the synthesis of several nitrogen heterocycles. Specifically synthesis of many of the biologically active nitrogen heterocycles utilizes imine/imino derivatives, for example, synthesis of alkaloids. Introduction of the amino nitrogen in organic molecules can be achieved by the use of imines. Owing to their reactive nature, imines are involved in several named reactions/rearrangements, such as Amadori rearrangement, Eschweiler-Clarke reaction, Povarov reaction, and Aza-Baylis□Hillman reaction.

B20198	1-(2-Chlorophenyl)biguanide hydrochloride, 97%
B20355	1-(3-Chlorophenyl)biguanide hydrochloride, 97%
A10962	1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide methiodide, 98%
31395	1,3-Diphenylguanidine, primary standard, 99+%
B20311	1-(4-Chlorophenyl)biguanide hydrochloride, 97%
H27177	1-n-Butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide, 98%
L05844	2-Amino-4-imino-2-thiazoline hydrochloride, 99%
L12914	(2-Carboxyphenyl)iminodiacetic acid, 96%
A14835	2-Chloroacetamidine hydrochloride, 96%
H58479	3-Maleimidobenzonitrile, 97%
H61536	3-Maleimidopropionic acid, 95%
H54807	3-Sulfo-N-succinimidyl 4-(maleimidomethyl)cyclohexane-1-carboxylate sodium salt, 97+%
H51116	4-(4-Methoxyphenyliminomethyl)benzeneboronic acid pinacol ester
H52535	4-Amidoximobenzeneboronic acid, 95%

H37831	4-Bromobenzamidine hydrochloride
H58015	4-(Maleimidomethyl)benzonitrile, 97%
H28531	4-(Phenyliminomethyl)benzeneboronic acid pinacol ester, 97%
H51122	4-(tert-Butyliminomethyl)benzeneboronic acid pinacol ester
H27122	6-(4-Ethoxycarbonyl-1-piperazinyl)pyridine-3-boronic acid pinacol ester, 95%
A16091	Acetamidine hydrochloride, 97%
A16002	Benzamidine hydrochloride hydrate, 98%, water ca 10-14%
A16142	Benzethonium chloride, 97%
A11670	Bis(trimethylsilyl)carbodiimide, 97%
A17477	Creatine, anhydrous, 98%
A15362	Creatine phosphate disodium salt tetrahydrate, 98+%
B23097	Creatinine, 98%
B20185	Cyclopropylcarboxamidine hydrochloride, 97%
L20325	Di-tert-butyl iminodicarboxylate, 98%
L17684	Ethyl benzimidate hydrochloride, 97%
A11158	Formamidine acetate, 99%
B20331	Formamidine disulfide dihydrochloride, 97%
A11885	Formamidinesulfinic acid, 98%
A13543	Guanidine hydrochloride, 98%

L09643	Guanidine nitrate, 98%
B21721	Malonaldehyde bis(phenylimine) monohydrochloride, 97+%
A19914	N-Aminophthalimide, 94%
H63206	N-Boc-guanidine, 95%
H66868	N-Boc-iminodiacetic acid, 98%
B21315	N-Ethylguanidine sulfate, 98%
40526	N-Ethylmaleimide, 99+%
H65735	(+)-N,N'-Dibenzyl-L-tartaric diamide
A10973	N,N'-Dicyclohexylcarbodiimide, 99%
A19292	N,N'-Diisopropylcarbodiimide, 99%
B23786	N,N'-Diphenylformamidine, 98%
A13219	N-Phenylbenzamidine, 97%
H54627	N-Succinimidyl 4-(maleimidomethyl)cyclohexanecarboxylate, 98+%
A11044	S-Methylisothiouronium sulfate, 98+%
H51786	S-Methyl pyridine-2-carbothioimidate hydriodide, 96%
H51776	S-Methyl pyridine-3-carbothioimidate hydriodide, 96%
H51774	S-Methyl pyridine-4-carbothioimidate hydriodide, 96%

(Natural) Amino Alcohols



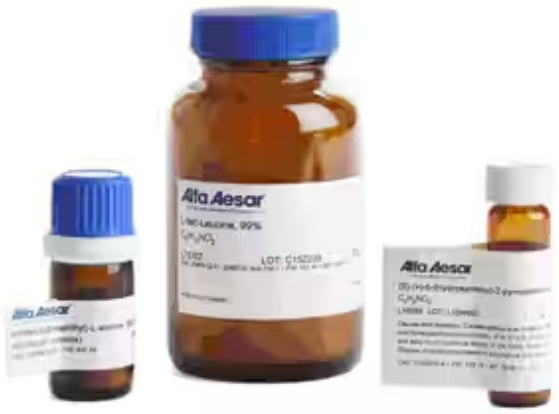
Amino alcohols (also known as alkanolamines) are organic compounds which contain both an amine ((-NH2, -NHR, and -NR) and an alcohol functional groups. It is said that amino alcohols are formed naturally from the reaction of methane, ammonia, and water in a nitrogen atmosphere. Most proteins and peptides contain both alcohols and amino groups. Two of the essential amino acids, serine and hydroxyproline are chiral amino alcohols. Serine is one of the naturally occurring proteinogenic amino acids. Only the L-stereoisomer appears naturally in proteins. (2S,4R)-4-hydroxyproline, or L-hydroxyproline, is a common non-proteinogenic amino acid.

In general, amino acids can be hydrogenated to the corresponding 2-aminoalcohol; for example, glycine to ethanolamine (glycinol), serine to serinol. Similarly amino acids can be converted to corresponding synthetically important amino alcohols, which form the building unit towards making several bioactive molecules. 1-Aminoethanol can be converted into alanine (the amino acid) by the condensation reaction with formic acid. Amino alcohols also play an important role as chiral ligands and chiral auxiliaries in asymmetric catalysis. The natural amino alcohol moiety is found in many pharmaceutical products, beta-blockers, for example, are propanolamine derivatives. Many natural products are synthesized using natural amino alcohols.

L13243	D-Leucinol, 97%
H63562	DL-Phenylalaninol, 95%
H63932	DL-Phenylglycinol, 95%
L09697	D-Phenylalaninol, 98%
L14166	D-(-)-Valinol, 98%
H60556	L-Isoleucinol, 97%
B23745	L-Leucinol, 97%
B24211	L-(-)-Methioninol, 97%
A11586	L-Phenylalaninol, 98%
H62506	L-Tryptophanol, 97%
L11300	L-(+)-Valinol, 97%
H27763	N(alpha)-Boc-D-tryptophanol, 98%
B22372	N-Benzyloxycarbonyl-D-alaninol, 98%
H27819	N-Benzyloxycarbonyl-D-phenylalaninol, 98%

H27066	N-Benzyloxycarbonyl-L-alaninol
H27887	N-Boc-D-alaninol, 98%, ee 98%
H27163	N-Boc-D-alpha-phenylglycinol, 99%
H27415	N-Boc-D-cyclohexylglycinol, 98%
H62498	N-Boc-D-leucinol, 98%
H27713	N-Boc-D-phenylalaninol, 98%
H61149	N-Boc-D-valinol, 95%
B22399	N-Boc-L-alaninol, 99%
L19353	N-Boc-L-alpha-phenylglycinol, 98%
L19351	N-Boc-L-isoleucinol, 95%
L19352	N-Boc-L-leucinol, 97%
B25019	N-Boc-L-phenylalaninol, 99%
H66571	N-Boc-L-tryptophanol, 95%
L10236	N-Boc-L-valinol, 97%
H66956	N-Fmoc-D-threoninol, 98%
H66433	N-Fmoc-L-alaninol, 95%
H66381	N-Fmoc-L-phenylalaninol, 95%
H66211	N-Fmoc-L-threoninol, 98%
H66323	N-Fmoc-L-valinol, 98%

(Natural) Amino Aldehydes

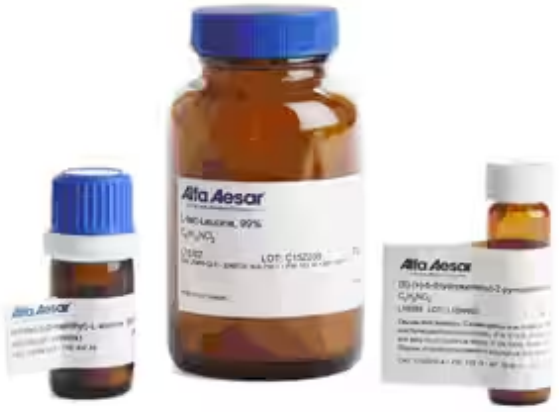


In general, aldehydes are not common among the natural building blocks of biological systems, specifically amino acids, nucleic acids, and lipids. However, some naturally occurring amino aldehydes have been reported, which include N-Boc-L-phenylalaninal, N-Boc-D-prolinal, 3-aminopropionaldehyde, and 4-amino-butyraldehyde. alpha-Amino aldehydes are the most important natural source of chiral substrates, which are useful in stereo-controlled organic synthesis. They are of special interest due to their ready availability in both enantiomeric forms from natural sources, as well as their pronounced versatility, due to the presence of both the formyl group and the suitably protected amino functionality in the molecule. (Review: Gryko, D., et al., □Synthesis and reactivity of N-protected-?-amino aldehydes□, Chirality 2003, 15(6), 514□541).

Naturally occurring aminoaldehydes are utilized in the medical and pharmaceutical fields. N-Boc-L-phenylalaninal is a key staring material for the preparation of dipeptide isosteres that have enzyme inhibition properties. 3-aminopropanal and 4-aminobutanal derivatives are used in beta-alanine biosynthesis. The amino acid derived amino aldehydes are used in the biomimetic synthesis of some substituted pyrazine natural products. The free polyamine-derived amino aldehydes, especially 3-aminopropionaldehyde, are reactive and cytotoxic when present at high concentrations. However, their oxidation by the NAD(P)+-dependent amino aldehyde dehydrogenase results in the formation of nontoxic metabolites, such as beta-alanine.

H26294	N-Boc-D-prolinal, 97%
H66530	N-Boc-L-phenylalaninal, 97%
H26495	N-Boc-L-prolinal, 96%

N-Oxides



N-oxides, also referred to as amine oxides, are organic compounds that contain the functional group N+-O-. Amine oxides are weak bases and highly polar molecules. Small amine oxides are found to be hydrophilic in nature and hence possess excellent water solubility.

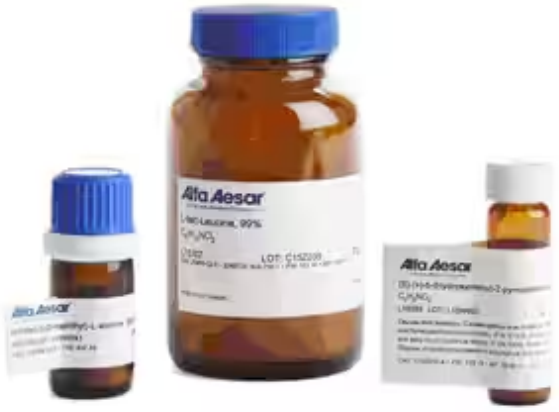
In organic synthesis, some of the organic reactions involve the N-oxide. The Cope reaction is an elimination reaction of the N-oxide of a tertiary amine to form an alkene. Similarly, the Meisenheimer rearrangement involves certain N-oxides which rearrange to hydroxylamines in a 1,2-rearrangement or 2,3-rearrangment. The Polonovski reaction involves a tertiary N-oxide substrate which is cleaved by acetic acid anhydride to the corresponding acetamide and aldehyde. Pyridine N-oxide is often used as an oxidizing agent in organic synthesis.

Amine oxides have other wide ranging applications, for example in the formulation of topical pharmaceuticals. Furthermore, these compounds serve as stabilizers, thickeners, emollients, and emulsifiers. Amine oxide is an amphoteric surfactant widely used in conjunction with other surfactants. As surfactants, they are used in shampoos, conditioners, detergents, and hard surface cleaners.

L19457	2,3-Dimethyl-4-nitropyridine N-oxide, 97%
H26979	2,6-Dichloro-4-nitropyridine N-oxide, 97%
H30427	2,6-Dichloropyridine N-oxide, 98%
A14299	2,6-Lutidine N-oxide, 98%
L20020	2-Bromo-4-nitropyridine N-oxide, 97%
L20025	2-Chloro-3-fluoro-4-nitropyridine N-oxide, 95%
B21707	2-Chloro-4-nitropyridine N-oxide, 97%
H27280	2-Chloropyridine N-oxide hydrochloride, 97%
H54207	2-Hydroxypyridine N-oxide, 98+%
A14152	2-Mercaptopyridine N-oxide, 99%
L04488	2-Picoline N-oxide, 98%
L19524	3-Bromo-4-nitropyridine N-oxide, 98+%
H25940	3-Bromopyridine N-oxide, 97%
L10635	3-Methylquinoline N-oxide, 97%

A12578	3-Picoline N-oxide, 98%
L17946	4-Benzyloxypyridine N-oxide, 98%
L20045	4-Hydroxy-3-nitropyridine N-oxide, 97%
L17830	4-Methoxypyridine N-oxide, 98%
A19802	4-Methylmorpholine N-oxide, 50% w/w aq. soln.
A15996	4-Methylmorpholine N-oxide monohydrate, 98+%
L06614	4-Nitro-2-picoline N-oxide, 98%
L06099	4-Nitro-3-picoline N-oxide, 98%
B21404	4-Nitropyridine N-oxide, 97%
A17330	4-Picoline N-oxide, 98%
H25899	7-Bromoisoquinoline N-oxide, 98%
L02425	Isonicotinic acid N-oxide, 99%
A19738	Isoquinoline N-oxide, 98%
L14794	Isoquinoline N-oxide, min 50% w/v in water
H61292	Nicotinamide N-oxide, 98%
H36570	N,N-Dimethyl-1-dodecylamine N-oxide, 30% aq. soln.
H54732	O-(6-Chloro-1H-benzotriazol-1-yl)-N,N,N',N'-tetramethyluronium tetrafluoroborate, 99+%
H52205	Pyridine-4-carboxamidoxime N-oxide, 97%
A10419	Pyridine N-oxide, 95%

Organic Amines



In an amine, one or more of the hydrogen atoms from ammonia are replaced by organic substituents like alkyl and aryl groups. Most common alkyl amines are liquids, and high molecular weight amines are solids at room temperature. Liquid amines have a distinctive "fishy" smell. Like ammonia, amines are reasonably strong bases. Basicity of the amines is based on the availability of the lone pair of electrons and electronic properties of the substituents.Amines are good ligands for metal ions in giving coordination complexes; aromatic amines react with nitrous acid to give diazonium salts which are used to prepare dyes. For example, aniline is an important precursor in the manufacturing of man-made dyes. Amines are substrates for the preparation of other important organic compounds such as imines, amides, quaternary, and ammonium salts. Amines have a wide range of applications both in the chemical and biological fields. Amines play an important role as neurotransmitters (epinephrine, norepinephrine, dopamine, serotonin, and histamine), subsequently, many drugs are designed to interfere with the action of natural amine neurotransmitters. Industrially amines are used in natural gas and refinery process streams. They also are used in polymer industry as monomers. Amines find use as additives for lubricating oils, engine fuels, and asphalt, and are producers of ethanolamines.

L04258	1,12-Diaminododecane, 98+%
A12314	1,1,3,3-Tetramethylguanidine, 99%
H56089	1,1,4,7,10,10-Hexamethyltriethylenetetramine, 97%
A15433	1,1,4,7,7-Pentamethyldiethylenetriamine, 98%
H53377	1-(1-Adamantyl)ethylamine hydrochloride, 98%
H33727	11-(Aminooxy)undecyltriethoxysilane, 95%
H33007	11-(Aminooxy)undecyltrimethoxysilane, 95%
H33835	11-Aminoundecyltriethoxysilane, 90+%
H31264	(±)-1,1'-Bi(2-naphthylamine), 97%
L16707	1,1-Bis(diethylamino)tetrafluoro-1-propene, 97%
H53448	1,1-Dimethylpropargylamine, 95%
L09342	(±)-1-(1-Naphthyl)ethylamine, 98%
B25673	(±)-1,2,3,4-Tetrahydro-1-naphthylamine, 97%
H66652	1,2,3,4-Tetrahydro-2-naphthylamine, 97%

H64862	1-[2-Amino-1-(4-methoxyphenyl)ethyl]cyclohexanol hydrochloride, 98%
B25121	12-Aminododecanoic acid, 96%
H33104	12-Aminododecylphosphonic acid hydrochloride, 95%
H50277	1-(2-Aminoethyl)-4-benzylpiperazine, 96%
H50837	1-(2-Aminoethyl)-4-methylhomopiperazine, 98%
H52371	1-(2-Aminoethyl)-4-methylpiperazine, 97+%
A10154	1-(2-Aminoethyl)piperazine, 98%
A18373	1-(2-Aminoethyl)piperidine, 98%
B24645	1-(2-Aminoethyl)pyrrolidine, 99%
L06887	1-(2-Aminophenyl)pyrrole, 98+%
H63627	1-[2-(Boc-amino)ethyl]indole-6-carboxylic acid, 97%
B24657	1,2-Diaminocyclohexane, mixture of isomers, 99%
B24489	1,2-Diaminopropane, 99%
B23098	1,2-Dianilinoethane, 97%
H50686	1-(2-Di-n-propylaminoethyl)piperazine, 99%
H50999	1-(2-Fluorophenyl)-2-propylamine, 97%
H50766	1-(2'-Methoxybiphenyl-2-yl)-N-methylmethylamine, 98%
H26046	1-(2-Pyridyl)ethylamine, 96%
H26052	1-(2-Thienyl)ethylamine, tech. 90%

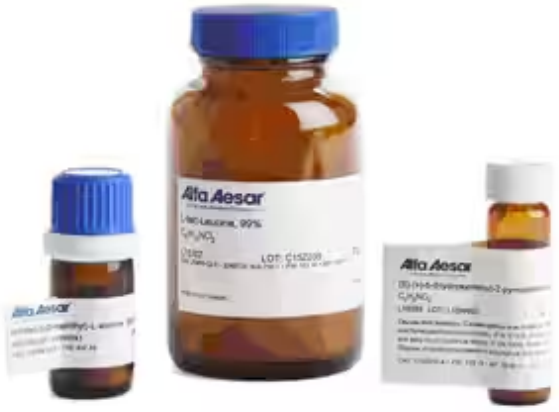
L06513	1-(3-Aminophenyl)ethanol, 98%
L04876	1-(3-Aminopropyl)-4-methylpiperazine, 98%
A14169	1-(3-Aminopropyl)imidazole, 98%
L04739	1-(3-Aminopropyl)pyrrolidine, 97%
L17295	1,3-Bis(aminopropyl)tetramethyldisiloxane, 94%
43496	1,3-Bis[tris(hydroxymethyl)methylamino]propane, 98+%
H50739	1-(3-Chlorophenyl)-2-(isopropylamino)ethanol
A19618	1,3-Diamino-2-propanol, 97%
A11932	1,3-Diaminopropane, 98%
H31650	1,3-Dimethyl-6-methylamino-2,4-dioxo-1,2,3,4-tetrahydropyrimidine-5-carboxaldehyde, 96%
B25057	1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide, 97%
A10807	1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide hydrochloride, 98+%
H63845	1-[3-(Dimethylamino)propyl]-3-ethylurea, 97%
H50690	1-(3-Dimethylaminopropyl)piperazine, 99%
H50758	1-(3-Methoxyphenyl)-2-(methylamino)ethanol, 98%
H26047	1-(3-Pyridyl)ethylamine, 96%
H26792	1,4,7,10-Tetrakis(aminocarbonylmethyl)-1,4,7,10-tetraazacyclododecane

H66905	1,4,7-Trimethyldiethylenetriamine, 95%
H26736	1,4,7-Tris(tert-butoxycarbonylmethyl)-1,4,7,10-tetraazacyclododecane
A11516	1,4,8,11-Tetraazacyclotetradecane, 98+%
H26755	1,4,8,11-Tetrakis(ethoxycarbonylmethyl)-1,4,8,11-tetraazacyclotetradecane
H26741	1,4,8-Tri-Boc-1,4,8,11-tetraazacyclotetradecane
H66620	1-(4-Aminobenzyl)-1H-1,2,4-triazole, 98%
L01421	1,4-Benzodioxan-6-amine, 99%
H58237	1-(4-Biphenylyl)ethylamine, 97%
L12508	1,4-Bis(3-aminopropyl)piperazine, 98%
L00903	1,4-Bis(methylamino)anthraquinone, 95%
H34204	1-(4-Bromophenyl)-3-dimethylamino-2-propen-1-one, 95%
L11848	(±)-1-(4-Bromophenyl)ethylamine, 96%
H32527	1-(4-Chlorophenyl)-1-methylethylamine, 97%
H50756	1-(4-Chlorophenyl)-2-(isopropylamino)ethanol, 98%
L13407	1,4-Cyclohexanebis(methylamine), cis + trans, 96%
A19156	1,4-Diaminoanthraquinone, tech. 90%
B21316	1,4-Diaminobutane, 98+%
A18312	1,4-Diaminobutane dihydrochloride, 99%

L11858	1-(4-Fluorophenyl)-2-methyl-2-propylamine, 96%
H50796	1-(4-Fluorophenyl)-2-(methylamino)ethanol, 98%
L07330	1-(4-Fluorophenyl)biguanide hydrochloride, 98%
L04575	(±)-1-(4-Fluorophenyl)ethylamine, 97%
H50754	1-(4-Methoxyphenyl)-2-(methylamino)ethanol, 97%
H50315	1-(4-Morpholinyl)cyclohexanemethylamine, 98%
H50303	1-(4-Pyridyl)ethylamine, 97%
B21434	1,5-Bis(4-aminophenoxy)pentane, 97%
A18840	1,5-Diaminoanthraquinone, 90+%
B24262	1,5-Diaminonaphthalene, 97%
B23039	1,5-Diaminopentane, 98%
A14212	1,6-Diaminohexane, 98+%
L02853	1,7-Diaminoheptane, 98%
L00313	1,8-Bis(dimethylamino)naphthalene, 98+%
A15966	1,8-Diaminonaphthalene, 97%
B23885	1,8-Diaminooctane, 98%
L02043	1,9-Diaminononane, 98%
H53511	1-Acetoxy-4-diethylamino-2-butyne, 98%

H51001	1-Acetyl-3-ethylaminopyrrolidine, 99%
H50846	1-Acetyl-3-(isobutylamino)pyrrolidine
H26486	1-Acetyl-4-(4-aminophenyl)piperazine, 97%
H30389	1-Acetyl-4-aminopiperidine hydrochloride, 97%
H50763	1-Acetyl-4-(isobutylamino)piperidine, 98%
H50973	1-Acetyl-4-(isopropylamino)piperidine, 98%
H50985	1-Acetyl-4-(methylamino)piperidine
H50972	1-Acetyl-4-(n-propylamino)piperidine, 99%
H30076	1-Adamantanamine, 98%
A12699	1-Adamantanamine hydrochloride, 99%
H66197	1-Adamantanemethylamine, 97%
H27288	1-Amino-1-cyclopropanecarbonitrile hydrochloride, 97%
H27264	1-Amino-1-cyclopropanecarboxylic acid hydrochloride, 97%
A19700	1-Amino-2,4-dibromoanthraquinone, 97%

Other Carboxylic N derivatives



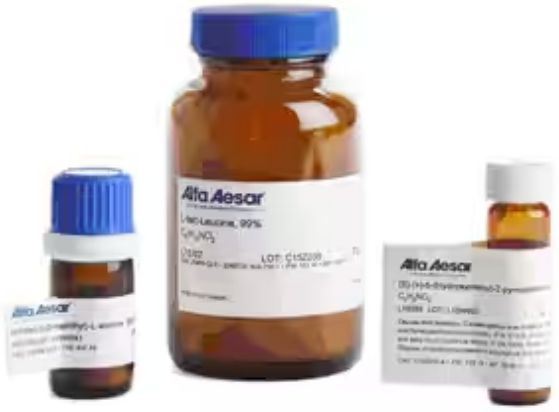
Carboxamidines: Amidines or carboxamidines are a class of oxoacid derivatives having the functional group -C(=NH)-NH_2, where oxo acid is carboxylic acid. Some of the well-known carboxamidines are DBU, and benzamidine. In general, amidines are much more basic than amides. Amidinate salts are widely used as ligands in organometallic complexes. DBU is widely used in organic synthesis as a catalyst, a complexing ligand, and a non-nucleophilic base. In pharmaceuticals, amidines are extensively used, for instance as antibacterials.

H52240	1,3-Dihydrobenzo[c]thiophene-5-thiocarboxamide, 97%
B25127	1,3-Di-o-tolylguanidine, 99%
A15234	1,3-Diphenylguanidine, 97%
H26571	1,4-Benzodioxane-2-thiocarboxamide, 97%
H60475	1H-1,2,4-Triazole-1-carboxamidine hydrochloride, 98%
H60631	1H-Pyrazole-1-carboxamidine hydrochloride, 99%
A10613	2,2,2-Trimethylacetamidine hydrochloride, 98%
H32092	2,2,2-Trimethylthioacetamide, 97%
H34058	2-(2,3-Dichlorophenyl)thioacetamide, 97%
H32656	2-[2,4-Bis(trifluoromethyl)phenyl]thioacetamide, 97%
H26583	2-(2,4-Dichlorophenoxy)thioacetamide, 97%
H26746	2-(2,6-Dichlorophenyl)thioacetamide, 97%
H26685	2-(2-Chlorophenyl)thioacetamide, 97%
H31541	2-(2-Methoxyphenyl)thioacetamide, 97%
H33111	2-(2-Methylphenyl)thioacetamide, 97%
H26498	2-(2-Pyridylsulfonyl)thioacetamide, 97%
H58358	2-(2-Thienyl)acetamidoxime, 97%
H32426	2-(3-Chlorophenyl)thioacetamide, 97%
H26761	2,3-Dichlorothiobenzamide, 97%

H31615	2-(3-Methoxyphenyl)thioacetamide, 97%
H33031	2-(3-Methylphenyl)thioacetamide, 97%
H58040	2-(3-Pyridyl)thioacetamide, 97%
H26263	2-(3-Trifluoromethyl-alpha-toluenesulfonyl)thioacetamide, 97%
L12711	2-(4-Chlorophenoxy)thioacetamide, 97%
H26806	2-(4-Chlorophenylsulfonyl)thioacetamide, 97%
H26864	2-(4-Chlorophenyl)thioacetamide, 97%
H51881	2,4-Difluoro-3-methoxybenzamide, 96%
H26758	2,4-Difluorothiobenzamide, 97%
H26742	2-(4-Methoxyphenyl)thioacetamide, 97%
H26278	2-(4-Methylphenyl)thioacetamide, 90+%
H33419	2,5-Bis(trifluoromethyl)thiobenzamide, 97%
H52243	2-Amino-4,5-dimethoxythiobenzamide, 97%
H52249	2-Amino-4-chlorothiobenzamide, 97%
H52237	2-Amino-5-nitrothiobenzamide, 97%
H51809	2-Aminothiobenzamide, 97%
H58529	2-(Boc-amino)-4-phenylthiazole-5-carboxamidoxime, 97%
H55238	2-Bromothiobenzamide, 97%
H52252	2-Chlorothionicotinamide, 97%

A15436	2-Cyanothioacetamide, 98%
H33353	2-Ethoxythiobenzamide, 97%
H52149	2-Hydroxy-4,6-dimethylthionicotinamide, 97%
A12898	2-Iodothiophene, 98%, stab. with copper
H51790	2-Methyl(thiobenzamide), 97%
H26478	2-Phenoxythioacetamide, 97%
H58835	2-Phenylacetamidoxime, 97%
H26514	2-Phenylthioacetamide, 97%
H26706	2-(tert-Butylsulfonyl)thioacetamide, 97%
H33047	2-(Trifluoromethoxy)thiobenzamide, 97%
H51795	3-(1,3-Dioxolan-2-yl)thiobenzamide, 97%
H52162	3-[4,5-Di(thiocarbamoyl)-2-imidazolyl]thiobenzamide, 97%

Oximes



Oximes are chemical compounds having the general formula >C=NOH. They belong to the imine family. Oximes are generated by the condensation of an aldehyde or a ketone with hydroxylamine. During condensation aldehydes produce aldoximes; similarly ketones produce ketoximes. Oximes exist as colorless crystals and are poorly soluble in water. Oximes can be hydrolyzed in the presence of various inorganic acids, and they decompose into the corresponding ketones or aldehydes, and hydroxylamines. The reduction of oxime compounds produces the corresponding amine compounds.

A16788	1,2-Cyclohexanedione dioxime, 97%
H30607	1H-Pyrazole-1-(N-methylcarboxamidine) hydrochloride, 96%
L17073	1-Phenyl-1,2,3-butanetrione 2-oxime, 98+%
H51034	(1R,E)-(+)-Camphorquinone 3-oxime, 99%
H50656	2-(1-Piperidinyl)acetamidoxime, 97%
H66816	2-(3,4-Dimethoxyphenyl)acetamidoxime, 97%
A14339	2,3-Butanedione monoxime, 99%
L13776	2,3-Dimethoxybenzaldoxime, 97%
H50663	2-[3-(Trifluoromethyl)phenoxy]acetamidoxime, 97%
H50673	2-[4-(1,3,4-Oxadiazol-2-yl)phenoxy]acetamidoxime, 97%
H58152	2-(4-Boc-1-piperazinyl)benzamidoxime, 97%
H50674	2,4-Dichlorobenzamidoxime, 97%
L09894	2,4-Dimethoxybenzaldoxime, 97%
A13003	2,4-Pentanedione dioxime, 98+%
A11351	2,6-Dichlorobenzaldoxime, 97%
L13550	2-Acetylthiophene O-methyloxime, 96%
H58220	2-Adamantanone oxime, 97%
H52200	2-Amino-4,5-dimethoxybenzamidoxime, 97%

H52218	2-Amino-5-nitrobenzamidoxime, 97%
H51782	2-Aminobenzamidoxime, 97%
B23023	2-Bromobenzaldoxime, 96%
L08196	2-Butanone oxime, 99%
L14719	2-Chloro-6-fluorobenzaldoxime, 97%
H51903	2-(Diphenylphosphino)benzaldehyde oxime, 95%
H51796	2-Hydroxy-6-methylpyridine-3-carboxamidoxime, 97%
H51719	2-Methylbenzamidoxime, 97%
A14565	2-Nitrobenzaldoxime, 98+%
H50679	2-(Phenylsulfinyl)acetamidoxime
H51797	3-(2-Benzimidazolyl)benzamidoxime, 97%
H66495	3,4-Diaminobenzamidoxime, 97%
L10202	3,4-Dichlorobenzaldoxime, 98%
L17766	3,4-Dihydroxybenzaldoxime, 98%
H52203	3,4-Dimethoxybenzamidoxime, 97%
H52216	3-(6-Amidoximo-2-benzimidazolyl)benzamidoxime, 97%
H52211	3-(6-Methyl-2-benzimidazolyl)benzamidoxime, 97%
H52224	3-(6-Nitro-2-benzimidazolyl)benzamidoxime, 97%
H52201	3-(7-Aza-2-benzimidazolyl)benzamidoxime, 97%

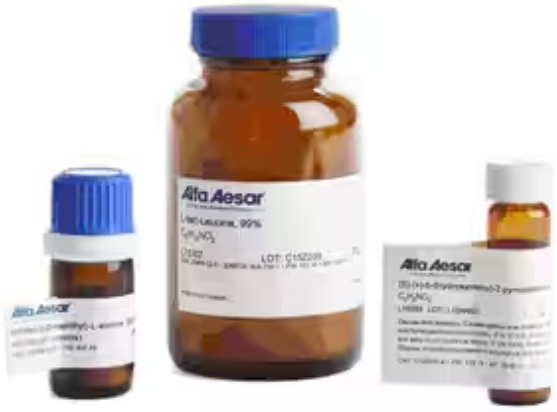
H51773	3-Aminobenzamidoxime, 97%
L12371	3-Aminothiophene-2-carboxamide, 97%
H51816	3-(Boc-amino)benzamidoxime, 97%
B25181	3-Bromobenzaldoxime, 97%
H51815	3-(Fmoc-amino)benzamidoxime, 97%
L10624	3-Hydroxy-3-methyl-2-butanone oxime, 98%
H52246	3-Hydroxybenzamidoxime, 97%
H52143	3-(Hydroxyiminomethyl)benzamidoxime, 97%
H52198	3-(Hydroxymethyl)benzamidoxime, 97%
H52144	3-Methoxybenzamidoxime, 97%
H50682	3-Methylbenzamidoxime, 96%
H51808	3-Methylpyridine-2-carboxamidoxime, 97%
L09144	3-Nitrobenzaldoxime, 98%

H52212	3-Nitrobenzamidoxime, 97%
H51840	4-(2-Benzimidazolyl)benzamidoxime, 97%
H50671	4-(3-Chlorophenyl)-1-piperazineacetamidoxime
H52261	4-(6-Amidoximo-2-benzimidazolyl)benzamidoxime, 97%
H52247	4-(6-Methyl-2-benzimidazolyl)benzamidoxime, 97%
H52220	4-(6-Nitro-2-benzimidazolyl)benzamidoxime, 97%
H52208	4-(7-Aza-2-benzimidazolyl)benzamidoxime, 97%
H52535	4-Amidoximobenzeneboronic acid, 95%
H52228	4-Amino-3-nitrobenzamidoxime, 97%
H51788	4-Aminobenzamidoxime, 97%
H52262	4-[Bis(2-amidoximobenzyl)amino]benzamidoxime, 97%
H51810	4-(Boc-amino)benzamidoxime, 97%
L07961	4-Diethylaminobenzaldoxime, 97%
H52259	4-Ethylbenzamidoxime, 97%
H51824	4-(Fmoc-amino)benzamidoxime, 97%
H52139	4-Hydroxy-3-methoxybenzamidoxime, 97%
H52148	4-Hydroxybenzamidoxime, 97%
H52151	4-(Hydroxyiminomethyl)benzamidoxime, 97%

H52161	4-(Hydroxymethyl)benzamidoxime, 97%
H52141	4-Methoxybenzamidoxime, 97%
H51704	4-Methylbenzamidoxime, 97%
A15525	4-Nitrobenzaldoxime, 98%
H52215	4-Nitrobenzamidoxime, 97%
H50652	4-tert-Butylbenzamidoxime, 97%
B24968	5-Bromothiophene-2-carboxaldoxime, 97%
A14261	5-Chlorobenzofuroxan, 97%
A15124	5-Methylbenzofuroxan, 97%
L01374	5-Nitro-2-furaldoxime, 97%
H51720	6-Aminonicotinamidoxime, 97%
H51789	6-(Boc-amino)nicotinamidoxime, 97%
H51721	6-(Fmoc-amino)nicotinamidoxime, 97%
L03950	9-Fluorenone oxime, 98+%
A10640	Acetaldoxime, syn + anti, 98%
L01569	Acetohydroxamic acid, 98%
A10802	Acetone oxime, 98%
A11804	Acetophenone oxime, 98%

A10630	alpha-Benzoin oxime, 98+%
A12053	Benzaldoxime, predominantly (E)-isomer, 98%
H26068	Benzamidoxime, 95%
A10687	Benzil dioxime, 98%
L10144	Benzofuroxan, 98%
A10509	Benzohydroxamic acid, 98%
H50888	Butyramidoxime
L05026	Cinnamaldoxime, (E)+(Z), 98%
A16551	Cupferron, 97+%
A19820	Cyclohexanone oxime, 97%
A16672	Cyclooctanone oxime, 98+%
B24961	Cyclopentanone oxime, 97%
A18183	Di-2-thienyl ketoxime, 97%
L00914	Dibenzyl ketoxime, 98+%

Sulfonamides



Sulfonamides belong to the class of compounds that contain the functional group -S(=O)2-N. The S-N bond in a sulfonamide compound is relatively difficult to cleave making them unreactive. Owing to the rigid nature of the functional group, sulfonamides are generally crystalline. Sulfonamides are important compounds in organic chemistry that have been extensively explored due to their wide-ranging chemical applications. Phenyl triflimide is used as a triflating reagent. The related metal triflimidates find use as catalysts. Chiral sulfonamides have long been used for several asymmetric transformations. Sulfonamides are important intermediates in a number of organic transformations. Sulfonamides are efficient partners in the synthesis of secondary amines and isothiourea.

Industrially, sulfonamides are used as flow-promoting agents for paints and adhesives and as plasticizers for polymers like polyamide because they increase flexibility. Toluenesulfonamides are used as antistatic agents and gloss enhancers in plastic film preparations. In the field of pharmaceutical chemistry, sulfonamide-based drugs are used as antibiotics. anticonvulsants, and diuretics.

H31898	1-(2,3,5,6-Tetramethylphenylsulfonylamino)cyclohexanecarboxylic acid, 95%
H33819	1-(2,3,5,6-Tetramethylphenylsulfonyl)-L-proline, 96%
H60482	1-(2,4,6-Triisopropylbenzenesulfonyl)imidazole, 98%
B25038	1-(2,4,6-Triisopropylphenylsulfonyl)-1,2,4-triazole, 98%
H33715	1-(2,5-Dimethylphenylsulfonylamino)cyclohexanecarboxylic acid, 96%
H33074	1-(2,5-Dimethylphenylsulfonyl)-L-proline, 96%
A19830	1,2-Bis(methanesulfonamido)benzene, 97%
H60206	1-(2-Bromophenylsulfonyl)-3-methylpiperidine, 97%
H54792	1-(2-Mesitylenesulfonyl)-3-nitro-1H-1,2,4-triazole, 99+%
H33849	1-(3-Chlorophenylsulfonyl)-L-proline, 96%
L03625	1,3-Diphenylacetone p-toluenesulfonylhydrazone, 99%
H34351	1-[3-(Trifluoromethyl)phenylsulfonylamino]cyclohexanecarboxylic acid, 96%
H33843	1-[3-(Trifluoromethyl)phenylsulfonyl]-L-proline, 96%
H33365	1-[4-(2-Chlorophenoxy)phenylsulfonylamino]cyclohexanecarboxylic acid, 96%

H33033	1-[4-(2-Chlorophenoxy)phenylsulfonyl]-L-proline, 96%
H34096	1-[4-(2-Methoxyphenoxy)phenylsulfonylamino]cyclohexanecarboxylic acid, 96%
H33385	1-[4-(2-Methoxyphenoxy)phenylsulfonyl]-L-proline, 96%
H33299	1-(4'-Chloro-4-biphenylylsulfonylamino)cyclohexanecarboxylic acid, 96%
H33200	1-(4'-Chloro-4-biphenylylsulfonyl)-DL-proline, 96%
H32698	1-(4'-Methoxy-4-biphenylylsulfonylamino)cyclohexanecarboxylic acid, 96%
H32890	1-(4'-Methoxy-4-biphenylylsulfonyl)-L-proline, 96%
H56035	1-(4-Methoxyphenylsulfonyl)pyrrolidine, 97%
H59357	1-Benzenesulfonyl-4-bromo-1H-pyrazole, 97%
H55503	1-(Ethylsulfonyl)piperazine, 97%
A15053	1-(Mesitylenesulfonyl)imidazole, 98+%
H35352	1-Methyl-3-n-octylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
H53386	1-Methylsulfonyl-1H-benzotriazole, 97%
L00531	1-(Methylsulfonyl)imidazole, 98+%
H63870	1-(Methylsulfonyl)piperazine, 97%
H34284	1-(Phenylsulfonyl)indole-3-carboxylic acid, 97%
L17566	1-(Phenylsulfonyl)indole, 98%
H32914	1-Phenylsulfonylpyrazole, 95%
A11599	1-(Phenylsulfonyl)pyrrole, 98%

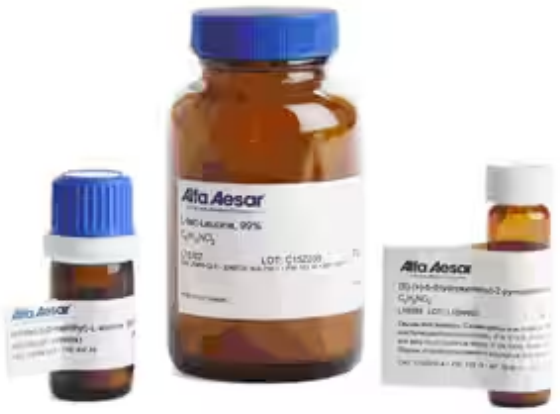
H54191	1-(p-Toluenesulfonyl)imidazole, 98+%
B22320	1-(p-Toluenesulfonyl)indole, 95%
H28641	1-(p-Toluenesulfonyl)pyrrole, 98%
44358	(1R)-10-Camphorsulfonamide, 97%
H26061	(1R,2R)-N-(p-Toluenesulfonyl)-1,2-diphenylethanediamine, 98+%
44361	(1S)-10-Camphorsulfonamide, 97%
H27867	(1S,2S)-N-Methylsulfonyl-1,2-diphenylethanediamine, 98+%
H27006	(1S,2S)-N-(p-Toluenesulfonyl)-1,2-diphenylethanediamine
H32489	2,3-Dichlorobenzenesulfonamide, 97%
H27687	2,4,5-Trichlorobenzenesulfonamide, 97%
H26934	2,4,6-Trichlorobenzenesulfonamide, 97%
L08445	2,4,6-Triisopropylbenzenesulfonamide, 98%
H55384	2,4,6-Trimethyl-N-[4-(trifluoromethyl)benzyl]benzenesulfonamide, 97%
B24589	2,4-Dichloro-5-sulfamoylbenzoic acid, 98%
H55437	2,4-Difluorobenzenesulfonamide, 96%
H31707	2,4-Dimethoxybenzenesulfonamide, 96%
H32584	2,5-Dibromobenzenesulfonamide, 97%

H31556	2,5-Difluorobenzenesulfonamide, 98%
B22649	2,5-Dimethoxybenzenesulfonamide, 97%
H27128	2,6-Difluorobenzenesulfonamide, 97%
B21912	2-Aminobenzenesulfonamide, 98%
H31649	2-Bromo-4-(trifluoromethyl)benzenesulfonamide, 97%
H32637	2-Chloro-4-(trifluoromethyl)benzenesulfonamide, 97%
L09082	2-Chlorobenzenesulfonamide, 98%
H61743	2-Fluorobenzenesulfonamide, 97%
L16947	2-Methoxy-4-methylbenzenesulfonamide, 95%
B23698	2-Methoxy-5-sulfamoylbenzoic acid, 97%
A13553	2-(Methoxycarbonyl)benzenesulfonamide, 98%
H53288	2-(Methylsulfonylamino)benzeneboronic acid, 95%
A15689	2-Nitrobenzenesulfonamide, 97+%
L16929	2-[N,N-Bis(trifluoromethylsulfonyl)amino]-5-chloropyridine, 99%
L17433	2-[N,N-Bis(trifluoromethylsulfonyl)amino]pyridine, 98%
H27250	2-(p-Toluenesulfonylamino)benzeneboronic acid pinacol ester, 97%
B21609	2-(Trifluoromethoxy)benzenesulfonamide, 99%
L19717	2-(Trifluoromethyl)benzenesulfonamide, 97%

H33644	3-(2,3,5,6-Tetramethylphenylsulfonylamino)benzoic acid, 96%
H34091	3-(2,5-Dimethylphenylsulfonylamino)benzoic acid, 96%
H53006	3-(3-Bromophenylsulfonamido)benzeneboronic acid, 95%
H33885	3-(3-Chlorophenylsulfonamido)benzoic acid, 96%
H33565	3-(3-Chlorophenylsulfonylamino)cyclohexanecarboxylic acid, 96%
H33462	3-[3-(Trifluoromethyl)phenylsulfonamido]benzoic acid, 96%
H33743	3-[4-(2-Chlorophenoxy)phenylsulfonamido]benzoic acid, 96%
H33914	3-[4-(2-Methoxyphenoxy)phenylsulfonylamino]benzoic acid, 96%
H34323	3-[4-(4-Chlorophenyl)phenylsulfonamido]benzoic acid, 96%
H32583	3-[4-(4-Methoxyphenyl)phenylsulfonamido]benzoic acid
H31964	3,4,5-Trifluorobenzenesulfonamide, 97%
H55947	3,4-Difluorobenzenesulfonamide, 97%
H61745	3,4-Difluoro-N-(4-fluorobenzyl)benzenesulfonamide, 97%
H61926	3,4-Difluoro-N-(4-methylbenzyl)benzenesulfonamide, 97%
H54992	3-(4-Fluorophenylsulfamoyl)benzeneboronic acid, 97%
H55923	3,5-Dichlorobenzenesulfonamide, 97%
L01939	3,5-Dichlorosulfanilamide, 97%
L19720	3,5-Difluorobenzenesulfonamide, 98%

B21857	3-Aminobenzenesulfonamide, 97+%
H53142	3-Benzylsulfamoyl-4-methoxybenzeneboronic acid, 93%
H32042	3-Bromo-1-phenylsulfonyl-7-azaindole, 95%
H66226	3-Bromo-1-(phenylsulfonyl)indole, 97%
B25681	3-Bromobenzenesulfonamide, 97%
H64363	3-Bromo-N-(2-methylbenzyl)-5-(trifluoromethyl)benzenesulfonamide, 97%
H60436	3-Bromo-N-methylbenzenesulfonamide, 97%
H60252	3-Bromo-N-phenylbenzenesulfonamide, 97%
H26406	3-Chloro-4-fluorobenzenesulfonamide, 97%
H32513	3-Chloro-4-methylbenzenesulfonamide, 97%
L08349	3-Chlorobenzenesulfonamide, 98%
H27646	3-Cyanobenzenesulfonamide, 98%
H52915	3-(Cyclohexylsulfamoyl)benzeneboronic acid, 97%
H52845	3-[Cyclopropyl(4-methoxybenzyl)sulfamoyl]benzeneboronic acid, 98%

(Thio)Semicarbazides/ones



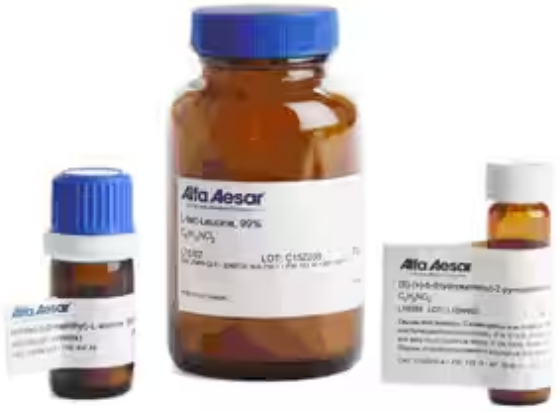
Semicarbazide is a derivative of urea, where one -NH2 group has been replaced with hydrazino (H2NNH-) group resulting in a formula H2NNHC(=O)NH2. Thiosemicarbazide is the thio derivative of semicarbazide where oxygen is replaced with sulfur atom. Thiosemicarbazide derivatives are extensively used in the heterocyclic synthesis. It is widely used in the preparation of many biologically active compounds such as pyrazole, thiazole, triazolethiadiazole and thiadiazine.

Thiosemicarbazone is derived by the condensation reaction between thiosemicarbazide and a carbonyl compound (ketone or aldehyde). Thiosemicarbazones are known to have antiviral, anti-infective and antineoplastic properties through binding to copper or iron in cells. Many of the metal complexes of thiosemicarbazones are reported to possess anti-tumor or anti-cancer activity. Some thiosemicarbazones are reported to have anti-Mycobacterium tuberculosis activity. For a review, on the antiviral activity of their metal complexes, pl. see: Pelosi, G., □Antiretroviral activity of thiosemicarbazone metal complexes□, J. Med. Chem., 2010, 53(24), 8765-9. The ability of thiosemicarbazones to chelate metal ions has been now recognized as a major factor in their antiproliferative effects. Emerging new uses of thiosemicarbazones as potent anticancer agents is discussed in the review (Kalinowski, DS., □Thiosemicarbazones: the new wave in cancer treatment□, Future Med. Chem. 2009, 1(6),1143-51.

A16915	1-Acetyl-3-thiosemicarbazide, 95%
B22331	1-Phenylsemicarbazide, 99%
A13289	2-Chlorobenzaldehyde thiosemicarbazone, 98%
L12599	4-(2,4-Dichlorophenyl)-3-thiosemicarbazide, 98+%
L10338	4-(2,4-Dimethylphenyl)-3-thiosemicarbazide, 98%
L11130	4-[2-(4-Morpholinyl)ethyl]-3-thiosemicarbazide, 98+%
L11076	4-(2,6-Dichlorophenyl)-3-thiosemicarbazide, 98+%
L12227	4-(2,6-Dimethylphenyl)-3-thiosemicarbazide, 97%
L12249	4-(2-Chlorophenyl)-3-thiosemicarbazide, 98%
L12920	4-(2-Fluorophenyl)-3-thiosemicarbazide, 96%
L09382	4-(2-Methylphenyl)-3-thiosemicarbazide, 98%
L10714	4-[3-(4-Morpholinyl)propyl]-3-thiosemicarbazide, 98+%
L11610	4-(3-Chlorophenyl)-3-thiosemicarbazide, 98+%
L11652	4-(3-Fluorophenyl)-3-thiosemicarbazide, 97%

L09299	4-[3-(Trifluoromethyl)phenyl]-3-thiosemicarbazide, 97%
L12657	4-(4-Chlorophenyl)-3-thiosemicarbazide, 97%
L10337	4,4-Dimethyl-3-thiosemicarbazide, 95%
L12361	4-(4-Ethylphenyl)-3-thiosemicarbazide, 98+%
L09482	4-(4-Fluorophenyl)-3-thiosemicarbazide, 98%
L11268	4-(4-Methylphenyl)-3-thiosemicarbazide, 98+%
L12372	4-(4-Phenoxyphenyl)-3-thiosemicarbazide, 95%
L11594	4-[4-(Trifluoromethyl)phenyl]-3-thiosemicarbazide, 97%
L10920	4-Benzyl-3-thiosemicarbazide, 98+%
B21138	4-Methyl-3-thiosemicarbazide, 97%
A15349	4-Phenyl-3-thiosemicarbazide, 98+%
B25578	4-Phenylsemicarbazide, 98+%
L10704	4-tert-Butyl-3-thiosemicarbazide, 97%
A12436	Acetone semicarbazone, 96%
A17947	Dithizone, 98%
33283	Dithizone, ACS, 85+%
36442	Phenylazoformic acid 2-phenylhydrazide compound with 1,5-Diphenylcarbohydrazide, ACS
H61949	p-Toluenesulfonyl semicarbazide, 95%
A11668	Semicarbazide hydrochloride, 99%

Ureas



Ureas (also known as urea derivatives or carbamide derivatives) are organic compounds that have -NH-CO-NH- functional group. Urea derivatives are formed by the replacement of hydrogen by the suitable substituents in urea. The parent compound, urea (NH2-CO-NH2) is a waste product of many living organisms and plays a vital role in physiology, particularly metabolism.

In pharmaceutical research, urea derivatives have been extensively used as they show a broad range of biological activities. Heterocyclic urea derivatives are found to possess anti-cancer activity owing to their good inhibitory activity against receptor tyrosine kinases. Some aromatic urea derivatives such as benzoylurea derivatives and phenyl urea derivatives possess anticancer activity.

Urea and its derivatives are also widely used in the agriculture and chemical industries. In the chemical industry, urea is an important key material in many organic syntheses.

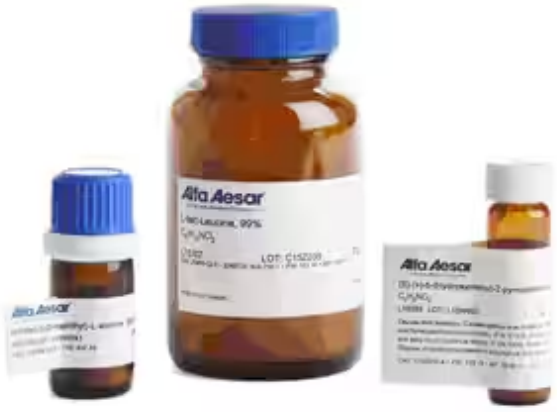
L09458	1,1,3,3-Tetraethylurea, 99%
H62583	1-[3,5-Bis(trifluoromethyl)phenyl]-3-(4-fluorophenyl)urea, 97%
A16060	1,3-Bis(hydroxymethyl)urea, tech. 90%
H65397	1-(4-Chlorophenyl)-3-[4-chloro-3-(trifluoromethyl)phenyl]urea, 97%
H61331	1-[4-(Trifluoromethyl)phenyl]-3-(2,3,4-trifluorophenyl)urea, 97%
B25668	2,4-Dimethylphenylurea, 98%
L01247	2-Fluorophenylurea, 98%
L02986	3-(3,4-Dichlorophenyl)-1,1-dimethylurea, 97%
H53320	3,3'-Carbonylbis(azanediyl)bis(3,1-phenylene)diboronic acid, 97%
L11370	3-Bromophenylurea, 97%
H53009	4-(3-Cyclopentylureido)benzeneboronic acid pinacol ester, 95%
H52589	4-(3-Cyclopropylureido)benzeneboronic acid pinacol ester, 97%
H52661	4-(3-Diethylureido)benzeneboronic acid pinacol ester, 98%

H52953	4-(3-Ethylureido)benzeneboronic acid pinacol ester, 98%
H53096	4-(3-Furfurylureido)benzeneboronic acid pinacol ester, 98%
H53146	4-(3-Isopropylureido)benzeneboronic acid pinacol ester, 98%
H53213	4-(3-Methoxy-3-methylureido)benzeneboronic acid pinacol ester, 98%
H53000	4-(3-Methylureido)benzeneboronic acid pinacol ester, 95%
H52718	4-(3-n-Butylureido)benzeneboronic acid pinacol ester, 97%
H53215	4-(3-n-Propylureido)benzeneboronic acid pinacol ester, 98%
H52645	4-(3-tert-Butylureido)benzeneboronic acid pinacol ester, 98%
L11074	4-Bromophenylurea, 97%
B25090	4-Chlorophenylurea, 98%
A12865	4-Fluorobenzylurea, 96%
L01314	4-Fluorophenylurea, 96%
H53046	4-Ureidobenzeneboronic acid pinacol ester, 98%
A15571	Allantoin, 98%
L07763	Benzoyleneurea, 98%
L11313	Benzoylurea, 97%
B24945	Benzylurea, 98%
L00812	Biuret, 97%
B20995	Cyanoacetylurea, 97%

B24915	Cyclohexylurea, 98%
B24040	Ethylurea, 98%
A18531	Guanylurea phosphate, 98+%
A10831	Hydroxyurea, 98%
H60729	Imidazolidinyl urea
A13316	L-Citrulline, 98%
B24772	Methylurea, 98%
B20749	m-Tolylurea, 98%
L13455	N-(4-Chlorophenyl)-N',N'-dimethylurea, 97%
L02854	n-Butylurea, 96%
A19106	N-Guanylurea sulfate, 97%
L01301	N,N'-Bis(trimethylsilyl)urea, 98+%
B20805	N,N'-Dicyclohexylurea, 98%
L02079	N,N'-Diethylurea, 97%
L05065	N,N-Dimethylurea, 98%
B21329	N,N'-Dimethylurea, 98%
L06165	N,N'-Di-n-butylurea, 98%
A18720	N,N'-Diphenylurea, 98%

	A10160	n-Propylurea, 98%
	A14773	O-Methylisourea hydrochloride, 98%
	B23086	o-Tolylurea, 98%
	L01306	Phenylurea, 97%
	A11150	p-Tolylurea, 98+%
	B21440	Selenourea, 99%
	A16295	Tetramethylurea, 99%
	16475	Trimethylurea
	A12360	Urea, 98+%
	36429	Urea, 99.3+%
	36428	Urea, ACS, 99.0-100.5%
	L13940	Urea hydrogen peroxide adduct, 97%

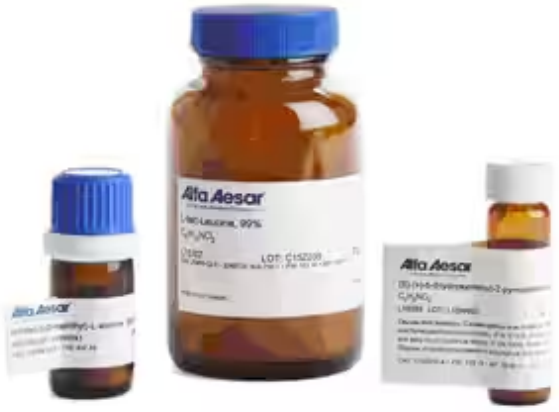
Cyanates



The esters of cyanic acid containing the cyanate moiety □-O-CN are called cyanates, or cyanate esters. Organic cyanates are called isocyanates when there is a C-N=C=O bond and cyanate esters when there is a C-O-CN bond. The cyanate ion is an anion wherein the three atoms lie on a straight line giving the ion a linear structure with a single CO bond and a triple CN bond (*Chemistry and Technology of Cyanate Ester Resins;* Hamerton, I., Ed.; Blackie Academic and Professional: Glasgow, 1994).

L20193 2-Nitrophenylselenocyanate, 97%

Isothiocyanates



The organic compounds which contain the group isothiocyanate (□N=C=S) are called isothiocyanates. Allyl isothiocyanate is one of the examples of natural isothiocyanates which is also known as mustard oil. The plant species of the order Brassicales, such as wasabi, horseradish, and radish, produce glucosinolates, which is converted by the enzyme myrosinase into isothiocyanate and have specific flavours because of the presence of isothiocyanates. Phenyl isothiocyanate is used for amino acid sequencing in the Edman degradation. Methyl isothiocyanate is a precursor to a wide variety of important biologically active compounds, and hence it is one of the most important organic isothiocyanate in the chemical industry.

Isothiocyanates are of interest in food science and medicine because of their natural abundance in plants coupled with diverse biological effects. These compounds are considered as a class of phytochemicals which have significant scope in preventing cancer. They are found to exhibit anti-tumor activity through several pathways including apoptosis, oxidative stress, MAPK signaling, and oxidative stress. (Review: Are isothiocyanates potential anti-cancer drugs? Wu, X. et al., Acta Pharmacologica Sinica, 2009, 30, 501□512). Fluorescein isothiocyanates (FITC) are used as a short-term cell lineage marker in the peri-implantation mouse embryo in order to observe an unusual permeability of embryonic plasma membranes. The other interesting applications of isothiocyanates include: labeling reagents for proteins and other biomolecules, food additives, and preservatives.

A10935	1-Butyl isothiocyanate, 98+%
B21802	1-Dodecyl isothiocyanate, tech. 90%
A12223	1-Hexyl isothiocyanate, 97%
A14501	1-Octyl isothiocyanate, 97%
A14972	1-Pentyl isothiocyanate, 96%
B20011	(±)-1-Phenylethyl isothiocyanate, 95%
A14499	1-Propyl isothiocyanate, 97%
L20316	(1R,2R)-(-)-2-Benzyloxycyclohexyl isothiocyanate, 97%
L20061	(1R,2R)-(-)-2-Benzyloxycyclopentyl isothiocyanate, 97%
L20060	(1S,2S)-(+)-2-Benzyloxycyclohexyl isothiocyanate, 97%
L20062	(1S,2S)-(+)-2-Benzyloxycyclopentyl isothiocyanate, 97%
B20930	2,3-Dichlorophenyl isothiocyanate, 97%
B20178	2,4-Dichlorophenyl isothiocyanate, 97%
B20204	2,4-Difluorophenyl isothiocyanate, 96%

L12046	2-(4-Morpholinyl)ethyl isothiocyanate, 97%
L12322	2,5-Difluorophenyl isothiocyanate, 98+%
A18630	2,5-Dimethoxyphenyl isothiocyanate, 98%
L12672	2,6-Dichlorophenyl isothiocyanate, 98+%
A19480	2,6-Dimethylphenyl isothiocyanate, 98%
A19464	2-Bromo-4-fluorophenyl isothiocyanate, 98%
L19246	2-Bromoethyl isothiocyanate, 98%
L13016	2-Chloro-5-(trifluoromethyl)phenyl isothiocyanate, 97%
A18238	2-Chlorophenyl isothiocyanate, 97%
B20383	2-Ethyl-6-methylphenyl isothiocyanate, 97%
A18314	2-Fluorophenyl isothiocyanate, 97%
A19448	2-Isopropylphenyl isothiocyanate, 96%
L12150	2-Methoxy-4-nitrophenyl isothiocyanate, 97%
L11085	2-Methoxy-5-methylphenyl isothiocyanate, 97%
A15123	2-Phenylethyl isothiocyanate, 98%
A19236	3,4-Dichlorophenyl isothiocyanate, 97%
B21415	3,4-Dimethoxyphenyl isothiocyanate, 99%
L12819	3-(4-Morpholinyl)propyl isothiocyanate, 96%
B20206	3,5-Bis(trifluoromethyl)phenyl isothiocyanate, 98%

B20687	3,5-Dichlorophenyl isothiocyanate, 98%
A15728	3,5-Dimethoxyphenyl isothiocyanate, 97%
A11302	3,5-Dimethylphenyl isothiocyanate, 99%
L19242	3-Benzyloxyphenyl isothiocyanate, 97%
A11999	3-Chlorophenyl isothiocyanate, 97%
B25001	3-Fluorophenyl isothiocyanate, 97+%
A15090	3-Methoxyphenyl isothiocyanate, 98%
A15216	3-Methoxypropyl isothiocyanate, 98%
B22150	3-(Methylthio)propyl isothiocyanate, 98%
B25296	4-Bromo-2-methylphenyl isothiocyanate, 98%
L10127	4-Chloro-3-(trifluoromethyl)phenyl isothiocyanate, 97%
L09579	4-Chlorobenzyl isothiocyanate, 97%
A12693	4-Chlorophenyl isothiocyanate, 98%
A18902	4-Ethoxyphenyl isothiocyanate, 98%
B24353	4-Ethylphenyl isothiocyanate, 97%
A15561	4-Fluorophenyl isothiocyanate, 98%
B22247	4-Methoxy-2-nitrophenyl isothiocyanate, 97%

L12342	4-Methoxybenzyl isothiocyanate, 94%
A15331	4-Methoxyphenyl isothiocyanate, 98%
L11135	4-Methylbenzyl isothiocyanate, 96%
A18984	4-n-Butyl-2-methylphenyl isothiocyanate, 95%
A19578	4-n-Butylphenyl isothiocyanate, 97%
H64013	4-(Trifluoromethoxy)phenyl isothiocyanate, 97%
L11769	5-Chloro-2-methoxyphenyl isothiocyanate, 97%
A19328	5-Chloro-2-methylphenyl isothiocyanate, 97%
L02901	Allyl isothiocyanate, 94%, stab.
L19249	Benzhydryl isothiocyanate, 97%
A15008	Benzyl isothiocyanate, 98%
A15585	Cyclohexyl isothiocyanate, 98%
A11745	Cyclopentyl isothiocyanate, 98%
L00911	Ethoxycarbonyl isothiocyanate, 97%
A19492	Ethyl isothiocyanate, 97%
L09319	Fluorescein isothiocyanate, isomer 1, 95%
A18932	Isobutyl isothiocyanate, 97%
A11641	Isopropyl isothiocyanate, 97%

L11046	Methyl 2-isothiocyanatoacetate, 98%
H31069	Methyl isocyanoacetate, 95%
A11757	Methyl isothiocyanate, 98%
L19464	Methyl isothiocyanate, polymer-supported, 1.5-1.9 mmol/g on polystyrene
L04902	n-Dodecyl thiocyanate, 97%
B22845	o-Tolyl isothiocyanate, 98%
A11596	Phenyl isothiocyanate, 97%
A13731	Potassium thiocyanate, 98%
A11499	p-Tolyl isothiocyanate, 97%
L19980	(R)-(-)-1-(1-Naphthyl)ethyl isothiocyanate, 94%
L20319	(R)-(-)-1-(4-Bromophenyl)ethyl isothiocyanate, 97%
L19974	(R)-(-)-1-(4-Chlorophenyl)ethyl isothiocyanate, 97%
L19977	(R)-(-)-1-(4-Fluorophenyl)ethyl isothiocyanate, 97%
L19976	(R)-(-)-1-Cyclohexylethyl isothiocyanate, 97%
L20068	(R)-(-)-1-Indanyl isothiocyanate, 94%
L20315	(R)-(-)-1-Phenylethyl isothiocyanate, 95%
L20318	(R)-(+)-1-Phenylpropyl isothiocyanate, 97%
L20064	(R)-(-)-2-Heptyl isothiocyanate, 98%

L20066	(R)-(-)-2-Hexyl isothiocyanate, 95%
L19982	(R)-(-)-2-Nonyl isothiocyanate, 96%
L19984	(R)-(-)-2-Octyl isothiocyanate, 98%
L20071	(R)-(-)-3-Methyl-2-butyl isothiocyanate, 97%
L19981	(S)-(+)-1-(1-Naphthyl)ethyl isothiocyanate, 97%
L20069	(S)-(+)-1-(3-Methoxyphenyl)ethyl isothiocyanate, 98%
L20320	(S)-(+)-1-(4-Bromophenyl)ethyl isothiocyanate, 97%
L19975	(S)-(+)-1-(4-Chlorophenyl)ethyl isothiocyanate, 97%
L19978	(S)-(+)-1-(4-Fluorophenyl)ethyl isothiocyanate, 97%
L20063	(S)-(+)-1-Cyclohexylethyl isothiocyanate, 97%
L20072	(S)-(-)-1-Phenylpropyl isothiocyanate, 97%
L20065	(S)-(+)-2-Heptyl isothiocyanate, 98%
L20067	(S)-(+)-2-Hexyl isothiocyanate, 95%
L19983	(S)-(+)-2-Nonyl isothiocyanate, 97%

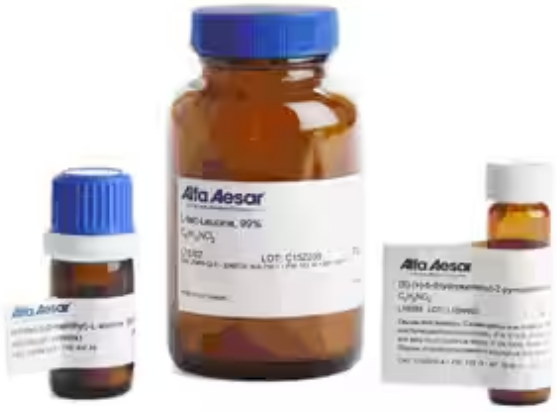
Cyanohydrins

The class of organic compounds with nitrile and hydroxyl groups attached to the same carbon [R1R2C(OH)CN; R1 and R2 are independently H, alkyl or aryl]] are called cyanohydrins. Mandelonitrile is one of the naturally available cyanohydrins occurring in the pits of some fruits. Chiral Cyanohydrins are widespread in nature in the form of their respective glycosides and are used by roughly 3000 plants and many insects for discouraging predators. Glycolonitrile is the simplest organic cyanohydrin, which is used in the synthesis of the industrially important chelating agent ethylenediaminetetraacetic acid (EDTA), which is used widely to remove trace metals from pharmaceuticals.

Cyanohydrins are of interest in the chemical and pharmaceutical industry for research and other specific uses. For a synthetic chemist, cyanohydrins offer an enormous potential for making other chiral compounds accessible. In a few instances, the pharmacological component of a drug also incorporates a chiral cyanohydrin as a constitutive structural element (Review: Synthesis and Reactions of Optically Active Cyanohydrins. Effenberger, F., Angew. Chem. Int. Ed. Eng. 1994, 33(15-16), 1555□1564). For manufacturing amino acids and carboxylic acids, cyanohydrins are used as industrially important precursors. In the Strecker amino acid synthesis, cyanohydrins are formed as intermediates. Acetone cyanohydrin is an intermediate in the industrial production of methyl methacrylate, a monomer of poly(methyl methacrylate), (PMMA), a transparent thermoplastic used as a lightweight or shatter-resistant alternative to glass. Acetone cyanohydrin is used for several purposes including, as a source of HCN, for the preparation of other cyanohydrins, for the transformation of HCN to Michael acceptors and for the formylation of arenes.

	L11318	1,1,1-Trifluoroacetone cyanohydrin, 95%
	H26699	Cyclohexanone cyanohydrin, 98%

Nitriles



The organic compounds which have a -CN functional group are called nitriles, or cyano compounds. Organic compounds containing a nitrile group are referred to as cyanocarbons. Nitriles are polar compounds with high dielectric constants. Nitriles are available naturally in both plant and animal sources and more than 120 nitriles have been isolated from terrestrial and marine sources. Cabbage, Brussel sprouts, and cauliflower are a few examples of plants which produce nitriles.

L03451	1,10-Decanedicarbonitrile, 98%
36702	1,2,3-Tris(2-cyanoethoxy)propane, 97%
A13142	1,2-Phenylenediacetonitrile, 98%
L08264	1,3-Dibenzyl-5-cyanohexahydropyrimidine, 99%
A15323	1,3-Phenylenediacetonitrile, 97%
H59323	1-(4-Bromo-3-fluorophenyl)cyclopropanecarbonitrile, 96%
H27789	1-(4-Chlorophenyl)-1-cyclobutanecarbonitrile, 97+%
L06107	1-(4-Methoxyphenyl)-1-cyclohexanecarbonitrile, 94%
L13464	1,4-Phenylenediacetonitrile, 97%
H30286	1,4-Piperazinedipropionitrile, 96%
B24543	1,6-Dicyanohexane, 99%
B24770	1-Adamantaneacetonitrile, 97%
H27288	1-Amino-1-cyclopropanecarbonitrile hydrochloride, 97%
H64647	1-Benzhydrylazetidine-3-carbonitrile, 97%
H27411	1-Benzyl-4-cyano-4-phenylpiperidine hydrochloride, 99%
H27583	1-Benzyloxycarbonyl-(2S,4R)-2-cyano-4-fluoropyrrolidine, 97%
H66977	1-Boc-2-cyanopiperidine, 96%
H29306	1-Boc-3-cyano-4-pyrrolidinone, 97%
H28841	1-Boc-3-cyanoazetidine, 97%

H66164	1-Boc-3-cyanopiperidine, 96%
H50082	1-Boc-3-cyanopyrrolidine, 99%
H64169	1-Boc-3-iodoindole-5-carbonitrile, 97%
H27580	1-Boc-4-cyanopiperidine, 96%
H52913	1-Boc-5-cyanoindole-2-boronic acid, 95%
H52520	1-Boc-6-cyanoindole-2-boronic acid, 96%
H66520	1-Boc-pyrrole-2-carbonitrile, 97%
H27730	1-Cyano-1-cyclopropanecarboxylic acid, 97%
H33746	(1-Cyano-2-ethoxy-2-oxoethylidenaminooxy)dimethylamino-morpholinocarbenium hexafluorophosphate, 98%
H59334	1-Cyano-4-(dimethylamino)pyridinium tetrafluoroborate, 98%
L08369	1-Cyanoacetyl-3,5-dimethyl-1H-pyrazole, 97%
B20532	1-(Cyanoacetyl)piperidine, 98%
A12523	1-(Cyanoacetyl)pyrrolidine, 98+%
A12464	1-Cyanomethylpiperidine, 98%
L10284	1-Cyclohexene-1-carbonitrile, 98%
H25836	1-Cyclopentenecarbonitrile, 97%
H26901	1-Ethyl-3-methylimidazolium dicyanamide, 98%
H59493	1-Ethyl-3-methylimidazolium thiocyanate, 98%
B24786	1-Methylimidazole-4,5-dicarbonitrile, 97%

H34157	1-Methylindole-3-carbonitrile, 96%
L06696	1-Naphthylacetonitrile, 97%
H59175	1-n-Butyl-3-methylimidazolium dicyanamide, 97%
H50710	1-Piperazinepropionitrile
L01469	1-Piperidinepropionitrile, 98+%
L01737	1-Pyrrolidineacetonitrile, 97%
L01818	1-Pyrrolidinepropionitrile, 97%
H34124	2-(1-Ethoxyethoxy)but-3-enenitrile, 96%
H66012	2-(1-Imidazolyl)acetonitrile, 95%
A11784	2-(1-Piperidinyl)benzonitrile, 97%
H26022	2-(2-Chloro-4-methoxyphenyl)-3-oxobutyronitrile, 95%
H66271	2-(2-Cyanophenoxy)acetamide, 98%

H58166	2-(2-Cyanophenyl)benzimidazole, 97%
A17991	2,2-Diphenylpropionitrile, 97%
H51040	2-(2-Ethylhexyloxy)-5-methoxy-1,4-benzenediacetonitrile, 98%
B22239	2,3,4,5,6-Pentafluorophenylacetonitrile, 98%
B22813	2,3,4,5-Tetrafluorobenzonitrile, 97%
B20691	2,3,4-Trifluorobenzonitrile, 98%
B24454	2,3,4-Trimethoxybenzonitrile, 97%
B20304	2,3,5-Trifluorobenzonitrile, 98%
B20644	2,3,6-Trifluorobenzonitrile, 98%
H62260	2-(3-Bromo-4-fluorophenyl)acetonitrile, 96%
A11879	2,3-Dichloro-5,6-dicyano-1,4-benzoquinone, 98%
H26584	2,3-Dichloro-6-fluorobenzonitrile, 97%
H32121	2,3-Dichloro-6-(trifluoromethyl)benzonitrile, 97%
H32978	2,3-Dichloro-6-(trifluoromethyl)phenylacetonitrile, 97%
A14809	2,3-Dichlorobenzonitrile, 98%
H58294	2,3-Dicyano-5-phenylpyrazine, 97%
H32231	2,3-Difluoro-4-hydroxybenzonitrile, 95%
H26752	2,3-Difluoro-4-methoxybenzonitrile, 97%

H26522	2,3-Difluoro-4-methylbenzonitrile, 97%
H26548	2,3-Difluoro-6-methoxybenzonitrile, 97%
B20811	2,3-Difluorobenzonitrile, 99%
A19934	2,3-Difluorophenylacetonitrile, 97%
B20942	2,3-Dimethoxybenzonitrile, 98%
A11589	2,3-Dimethylbenzonitrile, 97%
A13332	2,4,5-Trifluorobenzonitrile, 98+%
H26191	2,4,5-Trifluorophenylacetonitrile, 98%
A14609	2,4,6-Trichlorobenzonitrile, 97+%
L15525	2,4,6-Trifluorobenzonitrile, 99%
B20171	2,4,6-Trifluorophenylacetonitrile, 98%
B23540	2,4,6-Trimethoxybenzonitrile, 98%
A11882	2,4,6-Trimethylbenzonitrile, 98%
H26869	2,4-Bis(trifluoromethyl)benzonitrile, 97%
B25230	2-(4-Chlorophenylthio)-6-fluorobenzonitrile, 97%
H54240	2-(4-Cyanophenyl)benzimidazole-6-carboxylic acid, 97%
H63347	2,4-Dichloro-3-cyanopyridine, 95%
H26464	2,4-Dichloro-5-fluorobenzonitrile, 97%

L16372	2,4-Dichloro-6-methylbenzonitrile, 97%
A10113	2,4-Dichlorobenzonitrile, 98%
L10869	2,4-Dichlorophenoxyacetonitrile, 97%
H26323	2,4-Difluoro-3-methoxybenzonitrile, 97%
H26160	2,4-Difluoro-3-methylbenzonitrile, 99%
H31795	2,4-Difluoro-5-methylbenzonitrile, 97%
A14113	2,4-Difluorobenzonitrile, 98%
B20525	2,4-Difluorophenylacetonitrile, 97%
B24621	2,4-Dimethoxybenzonitrile, 99%
H50961	2-(4-Piperidinyloxy)benzonitrile, 98%
H26591	2,5-Bis(trifluoromethyl)benzonitrile, 97%
A14141	2,5-Dichlorobenzonitrile, 98%
H31774	2,5-Difluoro-4-methoxybenzonitrile, 98%
A14014	2,5-Difluorobenzonitrile, 98+%

B20246	2,5-Difluorophenylacetonitrile, 97%
A15868	2,5-Dimethoxybenzonitrile, 98%
L01942	2,5-Dimethylphenylacetonitrile, 98+%
L05919	2,6-Dibenzyloxybenzonitrile, 97%
B20346	2,6-Dichloro-3-cyano-4-methylpyridine, 97%
H26747	2,6-Dichloro-3-cyano-5-fluoropyridine, 97%
H63480	2,6-Dichloro-3-cyanopyridine, 97%
L06186	2,6-Dichloro-3-nitrobenzonitrile, 98%
H32358	2,6-Dichloro-3-(trifluoromethyl)benzonitrile, 97%
H32222	2,6-Dichloro-3-(trifluoromethyl)phenylacetonitrile, 97%
A14986	2,6-Dichlorobenzonitrile, 98%
A19983	2,6-Dichlorophenylacetonitrile, 98%
H26775	2,6-Difluoro-3-methoxybenzonitrile, 97%
L07035	2,6-Difluoro-3-nitrobenzonitrile, 98%
H26543	2,6-Difluoro-4-methoxybenzonitrile, 97%
A10454	2,6-Difluorobenzonitrile, 98%
A19987	2,6-Difluorophenylacetonitrile, 98%
A14461	2,6-Dimethylbenzonitrile, 97%

L12624	2,6-Dinitrobenzonitrile, 98+%
H66219	2-Amino-1-cyclopentene-1-carbonitrile, 98%
H64155	2-Amino-3,5-dibromobenzonitrile, 97%
H64534	2-Amino-3,5-dichlorobenzonitrile, 97%
H59362	2-Amino-3,6-difluorobenzonitrile, 97%
B25404	2-Amino-3-bromo-5-nitrobenzonitrile, 98%
H61823	2-Amino-3-bromobenzonitrile, 95%
H27918	2-Amino-3-chlorobenzonitrile, 97%
L19618	2-Amino-3-cyanopyridine, 98%
H61580	2-Amino-3-fluorobenzonitrile, 95%
H54861	2-Amino-4-(4-cyanophenyl)thiazole, 97%
H32544	2-Amino-4,5,6,7-tetrahydrobenzo[b]thiophene-3-carbonitrile, 97%
L09545	2-Amino-4,5-dimethoxybenzonitrile, 98%
H52695	2-Amino-4-cyanobenzeneboronic acid hydrochloride, 97%
L19841	2-Amino-4-cyanopyridine, 97%
43260	2-Amino-4-methylbenzonitrile, 98%
H32059	2-Amino-5,6-dihydro-4H-cyclopenta[b]thiophene-3-carbonitrile
H55217	2-Amino-5-bromobenzonitrile, 96%

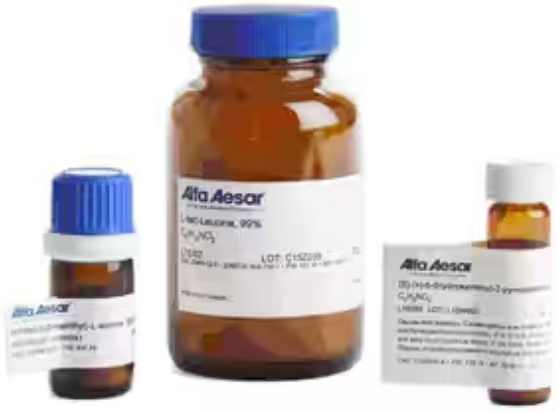
B22690	2-Amino-5-chlorobenzonitrile, 97%
L19282	2-Amino-5-cyanopyridine, 98%
H66481	2-Amino-5-methylbenzonitrile, 97%
B25416	2-Amino-5-nitrobenzonitrile, 95%
H61927	2-Amino-6-bromobenzonitrile, 95%
L06883	2-Amino-6-chlorobenzonitrile, 98%
A12456	2-Amino-6-fluorobenzonitrile, 99%
A12286	2-Aminobenzonitrile, 98%
H66243	2-Aminophenylacetonitrile, 97%
H30019	2-Aminothiazole-5-carbonitrile, 98%
H60699	2-Aminothiophene-3-carbonitrile, 97%
L00827	2-Benzimidazoleacetonitrile, 99%
A11343	2-Benzothiazoleacetonitrile, 98%
L19240	2-Benzyloxyphenylacetonitrile, 98%

L05902	3-Chloropropionitrile, 98%
H27126	3-Cyano-1-propylboronic acid pinacol ester, 96%
H50458	3-Cyano-2-(2-formyl-1-pyrrolyl)-4-methoxypyridine, 97%
H27137	3-Cyano-2,4-diiodopyridine, 95%
H31807	3-Cyano-2,6-dihydroxy-4-(trifluoromethyl)pyridine
H52394	3-Cyano-2-cyclohexyloxypyridine, 97+%
H52391	3-Cyano-2-cyclopentyloxypyridine, 97+%
H52362	3-Cyano-2-(cyclopropylmethoxy)pyridine, 97+%
H62113	3-Cyano-2-fluorobenzeneboronic acid pinacol ester, 96%
L19538	3-Cyano-2-fluoropyridine, 98%
A12466	3-Cyano-2-hydroxy-4,6-dimethylpyridine, 98%
L06688	3-Cyano-2-mercapto-4,6-dimethylpyridine, 98%
H52373	3-Cyano-2-methoxypyridine, 97+%
H64254	3-Cyano-2-pyridone, 98%
H53041	3-Cyano-4-fluorobenzeneboronic acid, 98%
H62245	3-Cyano-4-fluorobenzeneboronic acid pinacol ester, 96%
L19885	3-Cyano-4-fluorobenzenesulfonyl chloride, 98%
H66434	3-Cyano-4-hydroxybenzeneboronic acid pinacol ester, 95%

H27603	3-Cyano-4-iodopyridine, 95%
H64279	3-Cyano-4-methoxy-2-pyridone, 95%
L19769	3-Cyano-4-methylpyridine, 97%
H62066	3-Cyano-5-fluorobenzeneboronic acid pinacol ester, 96%
H34292	3-Cyano-5-fluoropyridine, 97%
H33006	3-Cyano-5-hydroxypyridine, 97%
L17427	3-Cyano-5-methylpyridine, 98+%
H53244	3-Cyano-5-nitrobenzeneboronic acid, 98%
H61266	3-Cyano-5-(trifluoromethyl)benzeneboronic acid, 97%
B20188	3-Cyano-6-methyl-2-pyridone, 98%
A15943	3-Cyanobenzaldehyde, 97%
L19635	3-Cyanobenzeneboronic acid, 98%
H64948	3-Cyanobenzeneboronic acid pinacol ester, 97%
H27646	3-Cyanobenzenesulfonamide, 98%
L20169	3-Cyanobenzenesulfonyl chloride, 97%
B23836	3-Cyanobenzoic acid, 98+%
H54212	3-Cyanobenzyl alcohol, 97%
H27474	3-Cyano-L-phenylalanine, 98%

H62313	3-Cyanomethyl-2-fluorobenzeneboronic acid pinacol ester, 96%
H53337	3-(Cyanomethyl)benzeneboronic acid, 96%
H52618	3-(Cyanomethyl)benzeneboronic acid pinacol ester, 96%
L09432	3-Cyanophenyl isocyanate, 97%
L13045	3-Cyanophenyl isothiocyanate, 97%
L03607	(3-Cyanopropyl)dimethylchlorosilane, 94%
A13787	(3-Cyanopropyl)trichlorosilane, 98%
L05367	(3-Cyanopropyl)triethoxysilane, 97%
H58380	3-Cyanopyrazolo[1,5-a]pyrimidine, 97%
H33568	3-Cyanopyridazine, 97%
A19961	3-Cyanopyridine 1-oxide, 97%
H27814	3-Cyanopyridine-4-boronic acid pinacol ester, 95%
H54385	3-Cyanopyridine-5-boronic acid pinacol ester, 96%
A14850	3-Cyanopyridine, 98%

Isocyanates



Isocyanates are the class of organic compounds which contain an isocyanate group (-N=C=O). These compounds are prepared by the reaction of amines with phosgene. Isocyanates are electrophiles and reactive towards various nucleophiles such as alcohols and amines. When reacted with alcohols, isocyanates give urethanes, and when reacted with amines the product formed is urea. If the organic compounds have two isocyanate groups then they are named as diisocyanates. When treated with a compound containing two or more hydroxyl groups such as a diol or a polyol, diisocyanates give polymer chains called polyurethanes. Diisocyanates react with a compound containing two or more amine groups giving long polymer chains known as polyureas. Cyclization occurs when isocyanates react with themselves.

Isocyanates have several applications in organic reactions. In the Diels-Alder reaction, isocyanates act as a dienophile. Hofmann rearrangement, Schmidt reaction, Curtius rearrangement and Lossen rearrangement are some of the transformations which involve in the formation of isocyanate as an intermediate. Methylene diphenyl diisocyanate (MDI), toluene diisocyanate (TDI), hexamethylene diisocyanate (HDI) and isophorone diisocyanate (IPDI) are some of the common isocyanates globally marketed for various industrial applications. Methyl isocyanate (MIC) is a monofunctional isocyanate with high industrial significance.

H33555	10-Isocyanatodecyltrimethoxysilane, 95%
L18706	1,1,3,3-Tetramethylbutyl isocyanate, 98%
L11836	(±)-1-(4-Bromophenyl)ethyl isocyanate, 97%
43803	1,6-Diisocyanatohexane, 98+%
L13380	1-Dodecyl isocyanate, 98%
A17200	1-Naphthyl isocyanate, 98%
L18746	1-Octyl isocyanate, 97%
L13399	1-Pentyl isocyanate, 97%
L20353	(1R,2R)-(-)-2-Benzyloxycyclohexyl isocyanate, 97%
L20224	(1R,2R)-(-)-2-Benzyloxycyclopentyl isocyanate, 96%
L20223	(1S,2S)-(+)-2-Benzyloxycyclohexyl isocyanate, 97%
L20225	(1S,2S)-(+)-2-Benzyloxycyclopentyl isocyanate, 95%
L14780	2,3-Dichlorophenyl isocyanate, 97%
L10225	2,3-Dimethylphenyl isocyanate, 99%

L19349	2,4,6-Trifluorophenyl isocyanate, tech. 85%
L12611	2,4,6-Trimethylphenyl isocyanate, 98%
L18713	2,4-Dibromophenyl isocyanate, 98%
L11089	2,4-Dichlorophenyl isocyanate, 96%
A12415	2,4-Difluorophenyl isocyanate, 98+%
L09762	2,4-Dimethoxyphenyl isocyanate, 97%
L11126	2,4-Dimethylphenyl isocyanate, 98+%
L09735	2,5-Dichlorophenyl isocyanate, 97%
L15996	2,5-Difluorophenyl isocyanate, 98%
L11381	2,5-Dimethoxyphenyl isocyanate, 99%
L15999	2,5-Dimethylphenyl isocyanate, 97%
L18744	2,6-Dibromo-4-fluorophenyl isocyanate, tech. 90%
L10421	2,6-Dichlorophenyl isocyanate, 98%
L11339	2,6-Diethylphenyl isocyanate, 98+%
L14779	2,6-Difluorophenyl isocyanate, 97%
L10613	2,6-Diisopropylphenyl isocyanate, 94%
L12805	2,6-Dimethylphenyl isocyanate, 98%
L12521	2-Bromophenyl isocyanate, 97%
L12685	2-Chloro-4-nitrophenyl isocyanate, 97%

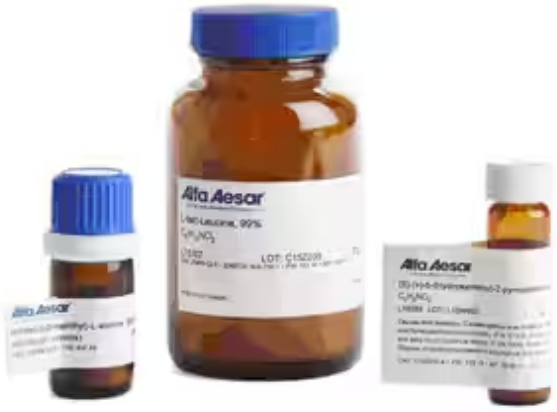
	L15994	2-Chloro-5-nitrophenyl isocyanate, 96%
	L09899	2-Chloro-5-(trifluoromethyl)phenyl isocyanate, 97%
	L11645	2-Chloro-6-methylphenyl isocyanate, 97%
	A17289	2-Chloroethyl isocyanate, 97%
	L15995	2-(Chloromethyl)phenyl isocyanate, 97%
	B21489	2-Chlorophenyl isocyanate, 98%
	L11299	2-Ethoxyphenyl isocyanate, 97%
	L15252	2-Ethylphenyl isocyanate, 99%
	B25630	2-Fluoro-5-(trifluoromethyl)phenyl isocyanate, 97%
	A17466	2-Fluorophenyl isocyanate, 98%
	L10618	2-Isopropylphenyl isocyanate, 97%
	L16001	2-Methoxy-5-methylphenyl isocyanate, 97%
	A18075	2-Methoxyphenyl isocyanate, 98%
	L10636	2-Methyl-3-nitrophenyl isocyanate, 98%
	L10850	2-Methyl-5-nitrophenyl isocyanate, 97%
	L11156	2-(Trifluoromethyl)phenyl isocyanate, 97%
	L09775	3,4,5-Trimethoxyphenyl isocyanate, 97%

B22395	5-Chloro-2-methoxyphenyl isocyanate, 97%
L11567	5-Chloro-2-methylphenyl isocyanate, 98%
L18710	Allyl isocyanate, 96%
A11583	Benzoyl isocyanate, tech. 90%
L02633	Benzyl isocyanate, 98%
L09988	Ethyl 2-isocyanato-3-methylbutyrate, 97%
L10993	Ethyl 2-isocyanato-3-phenylpropionate, 98%
L13059	Ethyl 2-isocyanato-4-(methylthio)butyrate, 97%
L11613	Ethyl 2-isocyanato-4-methylvalerate, 97%
L09616	Ethyl 3-isocyanatopropionate, 98%
B25180	Ethyl isocyanate, 98%
L10609	Ethyl isocyanatoacetate, 98%
L15379	Ethyl isocyanoacetate, 98%
A19410	Furfuryl isothiocyanate, 97%
L13759	Isophorone diisocyanate, mixture of isomers, 98%
L16105	Isopropyl isocyanate, 98+%
H64384	L-Lysine ethyl ester diisocyanate, 97%
L15255	m-Tolyl isocyanate, 99%

L12247	o-Tolyl isocyanate, 98%
A17492	p-Toluenesulfonyl isocyanate, 95%
A13577	p-Tolyl isocyanate, 99%
L20228	(R)-(-)-1-Cyclohexylethyl isocyanate, 94%
L10305	(R)-(+)-1-Phenylethyl isocyanate, 99%
L20232	(R)-(-)-2-Heptyl isocyanate, 95%
L20234	(R)-(-)-2-Hexyl isocyanate, 95%
L20236	(R)-(-)-2-Nonyl isocyanate, 97%
L20241	(R)-(-)-3-Methyl-2-butyl isocyanate, 97%
L20242	(S)-(+)-1-(1-Naphthyl)ethyl isocyanate, 95%
L20322	(S)-(-)-1-(4-Bromophenyl)ethyl isocyanate, 97%
L20227	(S)-(-)-1-(4-Chlorophenyl)ethyl isocyanate, tech. 90%
L20231	(S)-(-)-1-(4-Fluorophenyl)ethyl isocyanate, 95%
L20240	(S)-(-)-1-(4-Methoxyphenyl)ethyl isocyanate, 95%
L20229	(S)-(+)-1-Cyclohexylethyl isocyanate, 94%
L11141	(S)-(-)-1-Phenylethyl isocyanate, 98%
L20246	(S)-(-)-1-Phenylpropyl isocyanate, 95%
L20235	(S)-(+)-2-Hexyl isocyanate, 97%

	L20243	(S)-(+)-2-Nonyl isocyanate, 95%
	L20245	(S)-(+)-2-Octyl isocyanate, 95%
	36733	Toluene-2,4-diisocyanate, tech. 80%, remainder 2,6-diisocyanate
	L12745	Toluene-2,6-diisocyanate, 97%
	L15991	trans-1,4-Cyclohexane diisocyanate, 97%
	L00226	Trichloroacetyl isocyanate, 97%
	A12633	Trimethylsilyl isocyanate, 94%

Organic Thiocyanates



Organic compounds containing the group thiocyanate, connected through the sulfur end [R-S-CN], are referred to as thiocyanates (thiocyanic acid esters). In isothiocyantes, the attachment is through the nitrogen [R-N=C=S]. While there are several synthetic routes for alkyl thiocyanates, mostly the reaction of alkali thiocyanates with alkyl halide is followed. Thiocyanates play a vital role in the human biological system, including the biosynthesis of hypothiocyanite.

L09234	1,4-Butane diisothiocyanate, 98%
L12123	(±)-1-(4-Fluorophenyl)ethyl isothiocyanate, 97%
L09756	1,4-Phenylene diisothiocyanate, 98%
L12165	1-Decyl isothiocyanate, 96%
L10866	1-Heptyl isothiocyanate, 96%
L12418	1-Naphthyl isothiocyanate, 98%
L10066	1-Nonyl isothiocyanate, 97%
L09463	2-(1-Piperidinyl)ethyl isothiocyanate, 97%
L11817	2-(3,4-Dimethoxyphenyl)ethyl isothiocyanate, 98%
L12119	2,3,4-Trichlorophenyl isothiocyanate, 97%
L11551	2,4,5-Trichlorophenyl isothiocyanate, 98%
L12118	2,4,6-Trichlorophenyl isothiocyanate, 98%
L09478	2,4,6-Trifluorophenyl isothiocyanate, 97%
L12294	2,4,6-Trimethylphenyl isothiocyanate, 96%
L11307	2-(4-Chlorophenyl)ethyl isothiocyanate, 97%
L12584	2,4-Dimethoxyphenyl isothiocyanate, 97%
L11665	2,4-Dimethylphenyl isothiocyanate, 98%
B24147	2,4-Dinitrophenyl thiocyanate, 98%
L10100	2,6-Diethylphenyl isothiocyanate, 97%

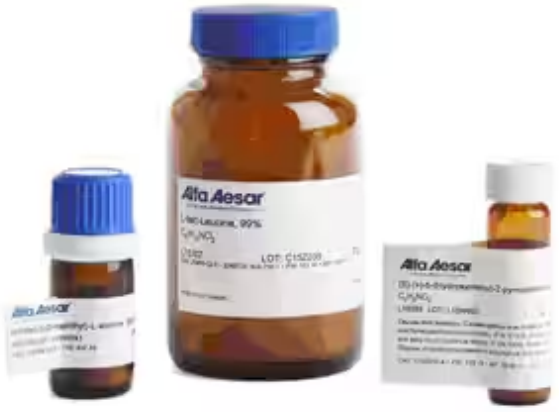
	L11903	2,6-Difluorophenyl isothiocyanate, 97%
	L10893	2,6-Diisopropylphenyl isothiocyanate, 97%
	L09413	2-Bromo-4-methylphenyl isothiocyanate, 98%
	L09971	2-Bromophenyl isothiocyanate, 98%
	L10898	2-Chloro-4-nitrophenyl isothiocyanate, 97%
	L10546	2-Chlorobenzyl isothiocyanate, 97%
	L11604	2-Chloroethyl isothiocyanate, 97%
	L12569	2-(Ethoxycarbonyl)phenyl isothiocyanate, 98+%
	L09821	2-Ethylphenyl isothiocyanate, 98%
	L11012	2-Iodophenyl isothiocyanate, 97%
	L09674	2-Methoxybiphenyl 3-isothiocyanate, 97%
	L10839	2-Methoxyethyl isothiocyanate, 98+%
	L11799	2-Methoxyphenyl isothiocyanate, 98%
	L11421	2-(Methylthio)phenyl isothiocyanate, 97%
	L09669	2-Nitrophenyl isothiocyanate, 97%
	L10586	2-(Trifluoromethyl)phenyl isothiocyanate, 98%
	L11701	3,4-Dichlorobenzyl isothiocyanate, 97%
	L10501	3,4-(Methylenedioxy)benzyl isothiocyanate, 94%
	L10134	3-Acetylphenyl isothiocyanate, 97%

L09871	3-Bromophenyl isothiocyanate, 97%
L11322	3-Carboxyphenyl isothiocyanate, 97%
L10750	3-Diethylamino-1-propyl isothiocyanate, 97%
L10235	3-Iodophenyl isothiocyanate, 98%
L10476	3-(Methoxycarbonyl)phenyl isothiocyanate, 99%
L12999	3-(Methylthio)phenyl isothiocyanate, 97%
L11335	3-Nitrophenyl isothiocyanate, 97%
L10931	3-Phenylpropyl isothiocyanate, 98%
L11646	3-(Trifluoromethyl)phenyl isothiocyanate, 98%
L11927	4-Acetylphenyl isothiocyanate, 98%
L10038	4-Benzyloxyphenyl isothiocyanate, 98%
L11469	4-Bromo-2,6-dimethylphenyl isothiocyanate, 97%

L11101	4-Bromophenyl isothiocyanate, 97%
L10506	4-Chloro-3-nitrophenyl isothiocyanate, 98%
L10173	4-Cyanophenyl isothiocyanate, 98%
L12420	4-Diethylaminophenyl isothiocyanate, 97%
L09011	4-Dimethylaminophenyl isothiocyanate, 97%
L12522	4-(Ethoxycarbonyl)phenyl isothiocyanate, 97%
L12214	4-Fluorobenzyl isothiocyanate, 97%
L12583	4-Iodophenyl isothiocyanate, 97%
L12949	4-Isopropylphenyl isothiocyanate, 96%
L10474	4-(Methoxycarbonyl)phenyl isothiocyanate, 98+%
L10438	4-Methyl-2-nitrophenyl isothiocyanate, 95%
L09270	4-(Methylthio)phenyl isothiocyanate, 97%
L11042	4-Nitrophenyl isothiocyanate, 97%
L11890	4-(Trifluoromethyl)phenyl isothiocyanate, 98+%
L06964	Benzoyl isothiocyanate, 98%
B23902	Benzyl thiocyanate, 98+%
A12108	Chloromethyl thiocyanate, 97%
L10120	Cyclododecyl isothiocyanate, 98%

L10129	Cyclohexylmethyl isothiocyanate, 97%
L13002	Cyclooctyl isothiocyanate, 97%
H32230	Cyclopentyl thiocyanate, 95%
L11985	Cyclopropyl isothiocyanate, 97%
L12532	Ethyl 2-isothiocyanatopropionate, 97%
L12504	Ethyl 3-isothiocyanatobutyrate, 98+%
L10911	Ethyl 3-isothiocyanatopropionate, 97%
B21250	Guanidine thiocyanate, 99%
L09996	Methyl 3-isothiocyanatopropionate, 99%
H27879	Methyl thiocyanate, 99%
L11874	Pentafluorophenyl isothiocyanate, 96%
L09878	Tetrahydrofurfuryl isothiocyanate, 98%

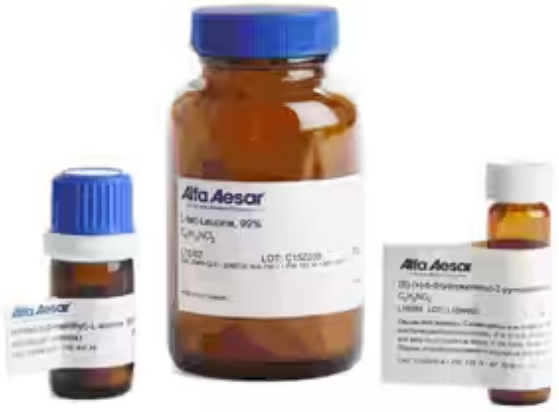
Isonitriles



The class of organic compounds with the functional group -NC are called an isonitriles (also referred to as isocyanides or carbylamines). Isonitriles are described by two resonance structures, one with a triple bond between the carbon and nitrogen and the other with double bond. The resonance structure with a carbenic character (N=C) is responsible for the zwitterionic property and the linearity of isonitriles.

20748	2,6-Dimethylphenyl isocyanide
H52580	alpha-(p-Toluenesulfonyl)-4-fluorobenzylisonitrile, 97%
A14312	p-Toluenesulfonylmethyl isocyanide, 97%

Nitro Compounds



Nitro compounds (-NO2) are chemical compounds which contain one or more nitro group(s) as a part of their molecular structure. The organic substances (both aliphatic and aromatic) in which a carbon atom is linked with the nitrogen atom of the nitro group by covalent bond are the most common examples. These compounds exist both in liquid and solid forms and are either colourless or yellow in colour. Nitromethane, nitroethane, and nitropropane are some of the most commonly produced aliphatic nitro compounds. Nitrobenzene and trinitrotoluene (TNT) are some of the nitroaromatic compounds. While nitromethane adds to alpha-beta unsaturated carbonyl compounds in the Michael reaction as a Michael donor, nitroalkenes are Michael acceptors. Nitro compounds are involved in Leimgruber-Batcho, Bartoli and Baeyer-Emmerling indole syntheses, Nef reaction, and several other organic reactions.

Nitro compounds are among the largest and most important groups of industrial chemicals in use today. These compounds are commercially produced for use as explosives and in the manufacture of diverse products, including chemical intermediates, drugs, dyes, waxes, polymers, rubber and photographic chemicals. In pharmaceutical industry, nitro compounds have the potential to be used as therapeutic agents.

A11789	1,1-Bis(methylthio)-2-nitroethylene, 99%
H66536	1-(2,3-Epoxypropyl)-2-nitroimidazole, 97%
A18038	1,2,3-Trichloro-4-nitrobenzene, 97%
B21511	1,2,3-Trichloro-5-nitrobenzene, 97%
A16313	1,2,3-Trifluoro-4-nitrobenzene, 97%
L20302	1,2,3-Trifluoro-5-nitrobenzene, 99%
A16579	1,2,4-Trifluoro-5-nitrobenzene, 99%
B21692	1,2-Bis(2-nitrophenoxy)ethane, 98%
A15677	1-(2-Bromoethyl)-4-nitrobenzene, 98%
H63397	1-(2-Chloro-4-nitrophenyl)-4-methylpiperazine, 97%
H63232	1-(2-Chloro-4-nitrophenyl)piperazine, 97%
H64782	1,2-Dichloro-4-fluoro-5-nitrobenzene, 95%
A11060	1,2-Difluoro-4-nitrobenzene, 98+%
L11706	1,2-Dimethoxy-4,5-dinitrobenzene, 96%

L11303	1,2-Dimethyl-5-nitroimidazole, 97%
H63310	1-(2-Fluoro-4-nitrophenyl)homopiperazine, 97%
H63059	1-(2-Fluoro-4-nitrophenyl)piperazine, 97%
H63267	1-(2-Fluoro-4-nitrophenyl)piperidine, 97%
H63077	1-(2-Fluoro-6-nitrophenyl)piperazine, 97%
H54792	1-(2-Mesitylenesulfonyl)-3-nitro-1H-1,2,4-triazole, 99+%
B24838	1,2-Methylenedioxy-4-nitrobenzene, 98+%
B25116	1-(2-Nitrophenyl)piperidine, 98%
A12262	1,3,5-Trichloro-2-nitrobenzene, 98+%
A17035	1,3,5-Trifluoro-2-nitrobenzene, 98%
A10473	1,3,5-Trimethoxy-2-nitrobenzene, 98%
H61738	1,3-Dibromo-4-nitrobenzene, 98%
H55694	1,3-Difluoro-2-nitrobenzene, 98%
H60270	1,3-Difluoro-5-nitrobenzene, 98%
H63851	1-(4-Chloro-2-nitrophenyl)piperazine, 97%
H63732	1-(4-Chloro-2-nitrophenyl)piperidine, 97%
A10472	1,4-Dibromo-2-nitrobenzene, 98%
A11896	1,4-Dichloro-2-nitrobenzene, 98%

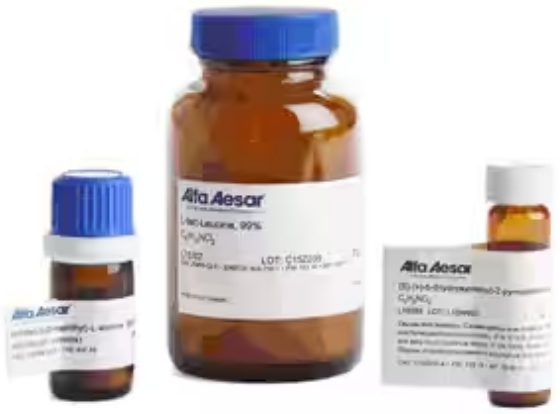
B24709	1,4-Di-n-butoxy-2-nitrobenzene, 98%
A10293	1,4-Dinitrobenzene, 98+%
H63133	1-(4-Fluoro-2-nitrophenyl)piperazine, 97%
H56962	1-(4-Methoxy-3-nitrophenyl)-4-methylpiperazine, 97%
H27369	1-(4-Nitrophenyl)-5-(trifluoromethyl)-1H-pyrazole-4-carboxylic acid, 97%
H63887	1-(4-Nitrophenyl)azepane, 97%
B24600	1-(4-Nitrophenylazo)-2-naphthol
L19968	1-(4-Nitrophenyl)glycerol, 99%
L18700	1-(4-Nitrophenyl)piperazine, 98%
L06652	1,5-Dichloro-2,4-dinitrobenzene, 96%
A13869	1,5-Dinitronaphthalene, 97+%
B25032	1,8-Dihydroxy-4,5-dinitroanthraquinone, 97%
L18271	1-Acetyl-5-bromo-7-nitroindoline, 98%
B20212	1-Acetyl-5-nitroindoline, 98%
H63407	1-Boc-4-(2-chloro-4-nitrophenyl)piperazine, 97%
H63127	1-Boc-4-(2-chloro-6-nitrophenyl)piperazine, 97%
H63340	1-Boc-4-(2-Fluoro-4-nitrophenyl)piperazine, 97%
H63876	1-Boc-4-(2-nitrophenyl)piperazine, 97%

H63592	1-Boc-4-(4-chloro-2-nitrophenyl)piperazine, 97%
H63615	1-Boc-4-(4-nitrophenyl)piperazine, 97%
H66208	1-Bromo-2,4-dimethyl-5-nitrobenzene, 95%
B22867	1-Bromo-2,4-dinitrobenzene, 98%
A18670	1-Bromo-2,5-difluoro-4-nitrobenzene, 97%
L07573	1-Bromo-2-chloro-4-nitrobenzene, 98%
H61494	1-Bromo-2-fluoro-4-nitrobenzene, 98%
A11686	1-Bromo-2-nitrobenzene, 99%
H66774	1-Bromo-3,5-dinitrobenzene, 98%
H61192	1-Bromo-3-fluoro-5-nitrobenzene, 98%
A12635	1-Bromo-4-chloro-2-nitrobenzene, 98%
L15503	1-Bromo-4-fluoro-2-nitrobenzene, 98%
A17705	1-Bromo-4-nitrobenzene, 98%
A13774	1-Chloro-2,4-dinitrobenzene, 98%
H61989	1-Chloro-2-fluoro-3-nitrobenzene, 97%
A15403	1-Chloro-2-nitrobenzene, 99%
B22773	1-Chloro-3,4-dinitrobenzene, tech. 90%
B23423	1-Chloro-3-nitrobenzene, 98%

A11400	1-Chloro-4-fluoro-2-nitrobenzene, 98+%
A15396	1-Chloro-4-nitrobenzene, 98+%
B22267	1-Difluoromethoxy-3-nitrobenzene, 98%
B21910	1-Difluoromethoxy-4-nitrobenzene, 98%
A11637	1-Dimethylamino-2-nitroethylene, 98%
H63843	1-Ethyl-4-(2-fluoro-4-nitrophenyl)piperazine, 97%
H63555	1-Ethyl-4-(4-nitrophenyl)piperazine, 97%
A11871	1-Fluoro-2,4-dinitrobenzene, 99%
A13852	1-Fluoro-2-nitrobenzene, 99%
H27762	1-Fluoro-3,5-dimethyl-2-nitrobenzene, 97%
H31612	1-Fluoro-3-iodo-5-nitrobenzene , 97%
B25553	1-Fluoro-3-nitrobenzene, 98+%
A11057	1-Fluoro-4-nitrobenzene, 99%
B23659	1-Iodo-2,4-dinitrobenzene, 98%
A12100	1-Iodo-2-nitrobenzene, 97%
B21605	1-Iodo-3-nitrobenzene, 99%
B23950	1-Iodo-4-nitrobenzene, 98+%
H63368	1-Methyl-4-(2-nitrophenyl)piperazine, 97%

H63665	1-Methyl-4-(4-nitrophenyl)piperazine, 97%
L16155	1-Methyl-5-nitro-1H-indazole, 98+%
H31700	1-Methyl-6-nitro-1H-indazole, 95%
B20068	1-Methylsulfonyl-4-nitrobenzene, 97%
B22608	1-Methylthio-1-methylamino-2-nitroethylene, 97%
B24896	1-n-Butyl-2-methyl-4-nitroimidazole, 97%
H64260	1-Nitro-2,5-bis(trifluoromethyl)benzene, 98%
A17320	1-Nitro-2-(n-octyloxy)benzene, 98%
A16797	1-Nitro-3,5-bis(trifluoromethyl)benzene, 96%
L07730	1-Nitro-4-n-propylbenzene, 96%
A11975	1-Nitropropane, 98%
L06067	1-tert-Butyl-4-nitrobenzene, 98%
H61097	2,2-Dimethyl-6-nitro-2H-1,4-benzoxazin-3(4H)-one, 97%
H61062	2,2-Dimethyl-7-nitro-2H-1,4-benzoxazin-3(4H)-one, 97%

Nitrosyl / Nitroso Compounds



The class of organic compounds with a NO group in their molecular structure are called nitroso compounds. The properties of nitroso compounds depend on the type of atom to which the NO group is attached and hence categorized as C-nitroso compounds (e.g., nitrosoalkanes: R-N=O and nitrosoarenes: Ar-N=O), S-nitroso compounds (nitrosothiols; RS-N=O), N-nitroso compounds (e.g., nitrosamines, R1N(-R2)-N=O), and O-nitroso compounds (alkyl nitrites; RO-N=O). Fischer-Hepp rearrangement and Barton reaction are the two useful transformations in organic synthesis that involve nitroso compounds.

Nitroso compounds are used in several chemical reactions and in chemical industries for various purposes. Organonitroso compounds are used as ligands for synthesizing transition metal complexes. Nitroso compounds such as nitrosodimethylaniline and the nitrosophenols are usually blue or green in color and are used in the manufacture of dyes. The nitroso derivatives of amides (N-nitroso compounds) decompose when heating with the formation of nitrogen and hence they are used as foam producing agents in industries. A comprehensive review on chemistry of nitric oxide (NO donors) releasing substances, which includes aryl-, alkyl-, and acyl C-nitroso compounds, N-nitroso compounds, and S-nitrosothiols, has been reported (Nitric Oxide Donors: for Pharmaceutical and Biological Applications. Wang, P. et al., ed., John Wiley & Sons, 2005, 390 pp).

B23375	1-Nitroso-2-naphthol-3,6-disulfonic acid disodium salt, 90+%
A10622	1-Nitroso-2-naphthol, 98%
L14860	4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone, 98%
A16551	Cupferron, 97+%
A18301	N,N-Dimethyl-4-nitrosoaniline, 98%
L00462	tert-Nitrosobutane dimer, 98+%