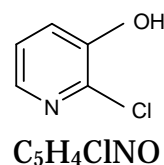


## Downstream products of 3-hydroxypyridine

Product Name	CAS No.	EINECS
2-Chloro-3-hydroxypyridine	6636-78-8	229-635-3
2-Bromo-3-hydroxypyridine	6602-32-0	229-547-5
3-Hydroxy-2-nitropyridine	15128-82-2	239-191-2
3-Methoxy-2-nitropyridine	20265-37-6	
3-Piperidinol	6859-99-0	229-957-4
Trifloxysulfuron	145099-21-4	
2-Mercapto-3-benzoyloxy pyridine	1175008-62-4	
2-Chloro-3-(2,2,2-trifluoroethoxy)pyridine		
2-Aminosulfonyl-3-(2,2,2-trifluoroethoxy)pyridine		
Mestimon	101-26-8	202-929-9
Benzpyrinium bromide	587-46-2	
Distigmine bromide	15876-67-2	

### 2-Chloro-3-hydroxypyridine

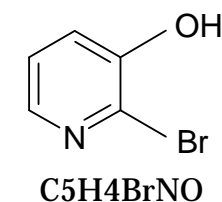
**CAS No.** : 6636-78-8  
**EINECS** : 229-635-3  
**Synonyms** : 2-Chloro-3-pyridinol  
**Structure** :



**Molecular weight** : 129.54  
**Melting range** : 168-172°C  
**Uses** : Intermediate of trifloxysulfuron and many other chemicals.

### 2-Bromo-3-hydroxypyridine

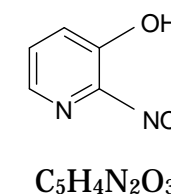
**CAS No.** : 6602-32-0  
**EINECS** : 229-547-5  
**Synonyms** : 2-Bromo-3-pyridinol  
**Structure** :



**Molecular weight** : 174.00  
**Melting range** : 179-185 °C  
**Uses** : Intermediate

### 3-Hydroxy-2-nitropyridine

**CAS No.** : 15128-82-2  
**EINECS** : 239-191-2  
**Synonyms** : 2-Nitro-3-pyridinol  
**Structure** :

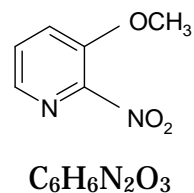


**Molecular weight** : 140.09  
**Melting range** : 67-72 °C  
**Uses** : Intermediate

### 3-Methoxy-2-nitropyridine

**CAS No.** : 20265-37-6  
**Synonyms** : 2-Nitro-3-methoxy pyridine

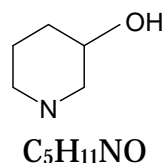
**Structure** :



**Molecular weight** : 154.12  
**Meilting range** : 73-76 °C  
**Uses** : Intermediate

### 3-Piperidinol

**CAS No.** : 6859-99-0  
**EINECS** : 229-957-4  
**Synonyms** : 3-Hydroxypiperidine  
**Structure** :

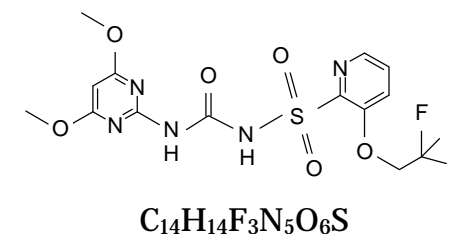


**Molecular weight** : 101.15  
**Uses** : Intermediate  
**Synthesis** : 3-hydroxypyridine is hydrogenated to 3-piperidinol under the catalysis of Ruthenium in aqueous solution

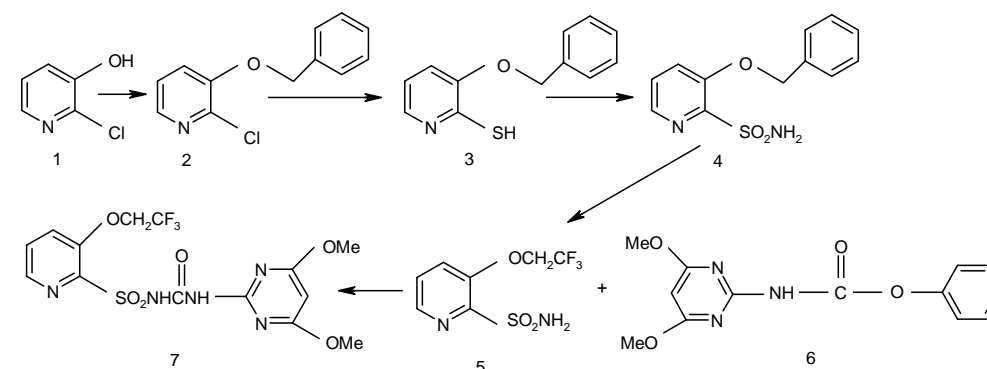
### Trifloxysulfuron

**CAS No.** : 145099-21-4  
**Synonyms** : 1-(4,6-dimethoxypyrimidin-2-yl)-3-[3-(2,2,2-trifluoroethoxy)-2-pyridylsulfonyl]urea;  
 N-[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-3-(2,2,2-trifluoroethoxy)-2-pyridinesulfonamide

**Structure** :



**Molecular weight** : 437.35  
**Meilting range** : 195 °C  
**Uses** : Herbicide  
**Synthesis:**

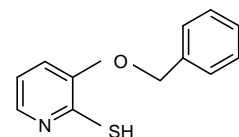


Name	CAS#
1 2-chloro-3-hydroxypyridine	6636-78-8
2 2-chloro-3-benzyloxy pyridine	
3 2-Mercapto-3-benzyloxy pyridine	1175008-62-4
4 2-aminosulfonyl-3-benzyloxy pyridine	
5 2-Aminosulfonyl-3-(2,2,2-trifluoroethoxy)pyridine	
6 4,6-Dimethoxy-2-(phenoxycarbonyl)Aminopyrimidine	89392-03-0
7 Trifloxysulfuron	145099-21-4

### 2-mercapto-3-benzyloxy pyridine

**CAS No.** : 1175008-62-4

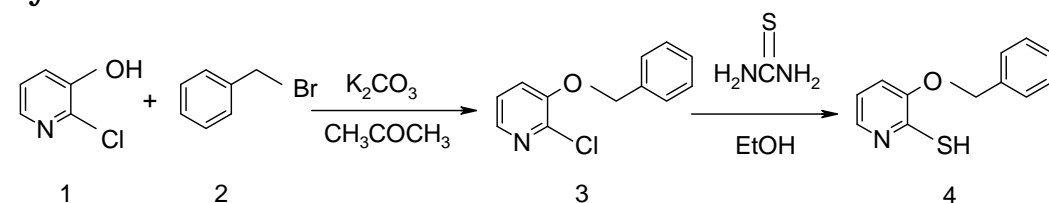
**Structure** :



$C_{13}H_{11}NOS$

**Uses** : Intermediate of herbicide trifloxysulfuron

**Synthesis:**

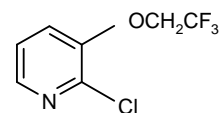


	Name	CAS#
1	2-chloro-3-hydroxypyridine	6636-78-8
2	Benzyl bromide	
3	2-chloro-3-benzyloxy pyridine	
4	2-Mercapto-3-benzyloxy pyridine	1175008-62-4

2-chloro-3-hydroxypyridine (1) is treated with 1.0 equiv. of benzyl bromide (2) in acetone to form 2-chloro-3-benzyloxy pyridine (3) in 97% yield. The compound 3 then reacts with 1.2 equiv. of thiourea in anhydrous ethanol to produce 2-mercapto-3-benzyloxy pyridine (4) in 77.95% yield.

### 2-chloro-3-(2,2,2-trifluoroethoxy)pyridine

**Structure** :



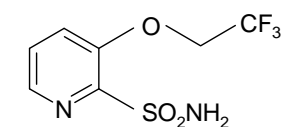
$C_7H_5ClF_3NO$

**Uses** : Fungicidal activity

**Synthesis** : Synthesized by the reaction of 2-chloro-3-hydroxypyridine with 2-chloro-1,1,1-trifluoroethane

### 2-Aminosulfonyl-3-(2,2,2-trifluoroethoxy)pyridine

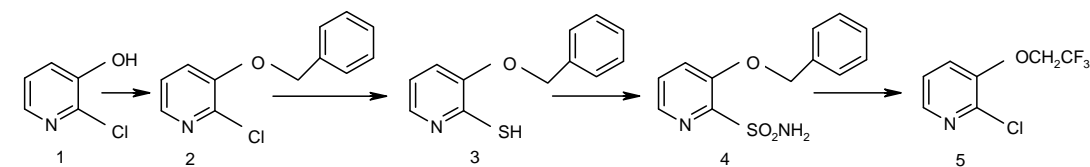
**Structure** :



$C_7H_7F_3N_2O_3S$

**Uses** : Intermediate of Trifloxysulfuron

**Synthesis:**

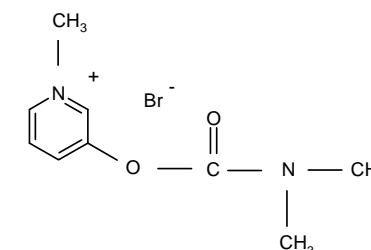


	Name	CAS#
1	2-chloro-3-hydroxypyridine	6636-78-8
2	2-chloro-3-benzyloxy pyridine	
3	2-Mercapto-3-benzyloxy pyridine	1175008-62-4
4	2-aminosulfonyl-3-benzyloxy pyridine	
5	2-Aminosulfonyl-3-(2,2,2-trifluoroethoxy)pyridine	

### Mestinon

**CAS No.** : 101-26-8  
**EINECS** : 202-929-9  
**Synonyms** : Pyridostigmine bromide;  
 3-[[[(Dimethylamino)carbonyl]oxy]-1-methylpyridinium  
 bromide

**Structure** :



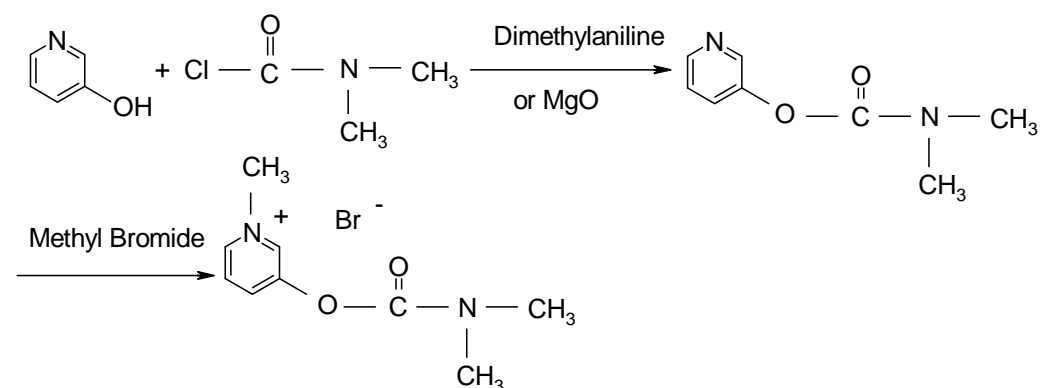
$C_9H_{13}BrN_2O_2$

**Molecular** : 261.12

**weight**

**Uses** : Cholinesterase inhibitor

**Synthesis:**



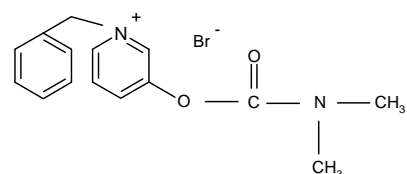
Pyridostigmine bromide is prepared by condensing 3-pyridinol with dimethylcarbamoyl chloride in the presence of a suitable basic catalyst such as dimethylaniline or magnesium oxide. The resulting ester, 3-pyridyl dimethylcarbamate, is isolated, dissolved in a suitable organic solvent, and quaternized with methyl bromide.

### Benzpyrinium bromide

**CAS No.** : 587-46-2

**Synonyms** : 1-Benzyl-3-(dimethylcarbamoyloxy)pyridinium bromide; Benzostigmine; Benzstigminum bromidum; Stigmenene bromide; Stigmonene bromide

**Structure** :



$C_{15}H_{17}BrN_2O_2$

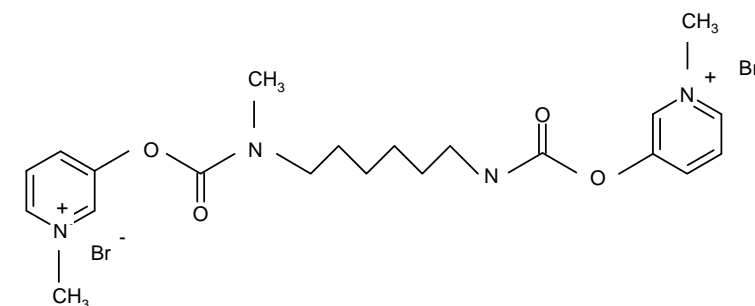
**Uses** : cholinergic

### Distigmine bromide

**CAS No.** : 15876-67-2

**Synonyms** : Ubretid

**Structure** :



$C_{22}H_{32}Br_2N_4O_4$

**Uses** : Cholinesterase inhibitor