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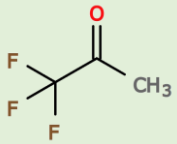
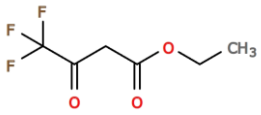
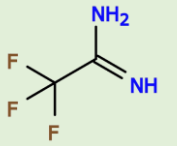
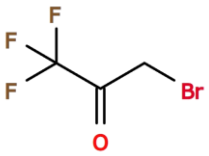
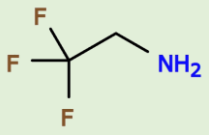
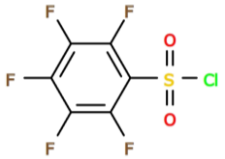
Revision 15. Nov. 2024

[Classification by use]

1-1. Medical and agrochemical intermediate raw material

No.	Chemical formula (Classification)	Name	CAS No.	Remarks
1	 **CF_3COCH_3** **(Carbonyl compound)**	**1,1,1-Trifluoroacetone**	**421-50-1**	Raw material for the therapeutic agent of sickle cell disease and congenital hemolytic anemia.
2	 **$CF_3COCH_2COOC_2H_5$** (Carboxylic acid and derivative)	**Ethyl 4,4,4-trifluoroacetoacetate**	**372-31-6**	Pyrazole oxime derivative pesticide raw material. (insecticidal/ rooting)
3	 **$CF_3C(=NH)NH_2$** (Carboxylic acid and derivative)	**2,2,2-Trifluoro acetamidine**	**354-37-0**	Cyclooxygenase inhibitory / analgesic trifluoromethyl-triazole derivative raw material.
4	 **CF_3COCH_2Br** **(Carbonyl compound)**	**3-Bromo-1,1,1-trifluoroacetone**	**431-35-6**	Imidazole pyridine ring skeleton synthetic raw material for non-acidic non-steroidal anti-inflammatory drug.
5	 **$CF_3CH_2NH_2$** **(Amine)**	**2,2,2-Trifluoro ethylamine**	**753-90-2**	Benzodiazepine skeleton modification raw material with trifluoroethyl group.
6	 **C_6F_5-SO_2Cl** **(Sulfur compound)**	**Pentafluorobenzene sulfonyl chloride**	**832-53-1**	Sulfur agent raw material with a pentafluorobenzene group, which is highly active in suppressing Zika virus.

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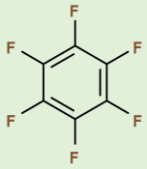
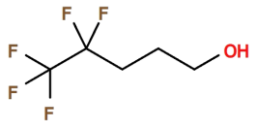
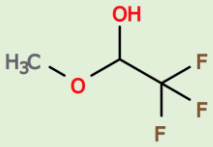
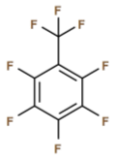
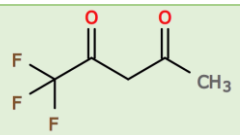
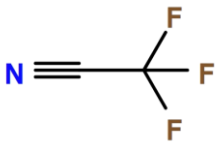
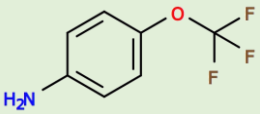
7	 **C_6F_6** **(Benzene derivative)**	**Hexafluorobenzene**	**392-56-3**	Pyrimidine amine derivative raw material for wheat red rust diseases.
8	 **$C_2F_5(CH_2)_3OH$** **(Alcohol)**	**Pentafluoropentanol**	**148043-73-6**	Fluoroalkyl group side chain component of Fulvestrant, a treatment for breast cancer.
9	 **(Carbonyl compound)**	**Trifluoroacetaldehyde methyl hemiacetal (tech.)**	**431-46-9**	A method of introducing a chiral β-CF3 group into a β-amino acid that exhibits a special physiological activity.
10	 **CF3-C6F5** **(Benzene derivative)**	**Octafluorotoluene**	**434-64-0**	Selective protection of steroid skeleton enones by perfluorotolyl enol ethers.
11	 **$CF_3COCH_2COCH_3$** **(Carbonyl compound)**	**1,1,1-Trifluoroacetylacetone (abb. TFAcAc)**	**367-57-7**	Synthesis of various derivatives with 2-trifluoromethyl-pyridine skeleton similar to flufenamic acid from TFAcAc.
12	 **CF_3CN** (Carboxylic acid and derivative)	**Trifluoroacetonitrile**	**353-85-5**	Various synthesis examples using TFAN.
13	 **4-CF3OC6H4NH2** (Carboxylic acid and derivative)	**4-(Trifluoromethoxy) Aniline (abb. TFMA)**	**461-82-5**	Introduced lipophilic -OCF3 group to progranil structure that exhibits strong anticancer activity against bladder cancer and colon cancer cells.

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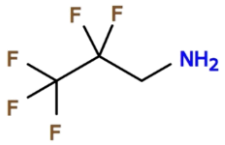
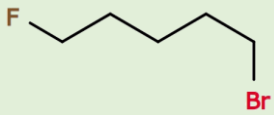
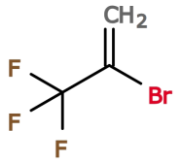
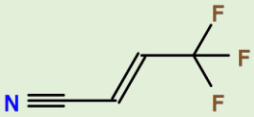
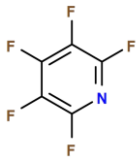
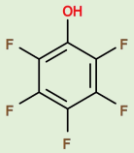
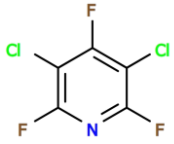
14	 $CF_3CF_2CH_2NH_2$ (Amine)	**2,2,3,3,3-Pentafluoropropylamine**	**422-03-7**	Synthesizing a prodrug that binds to the protein-degrading enzyme γ-secretase in cell membranes and confirming its anti-inflammatory effect in kidneys injured by aristolochic acid.
15	 **$Br(CH_2)_5F$ (Alkane)**	**1-Bromo-5-fluoropentane**	**407-97-6**	The antiemetic effect of natural cannabinoids (CB) in cancer chemotherapy was recognized, and medical interest in CB (SC) synthesis increased, leading to the discovery of CB receptors. Consideration of SC derivatives with indazole skeleton.
16	 **$CF_3CBr=CH_2$ (Alkyne)**	**2-Bromo-3,3,3-trifluoropropene (abb. BTFB)**	**1514-82-5**	Investigating a new Click reaction synthesis route for Celecoxib, an anti-inflammatory agent with COX-2 inhibitory action, using a novel high-speed continuous flow tube method.
17	 **$CF_3CH=CHCN$** (Carboxylic acid and derivative)	**4,4,4-Trifluorocrotononitrile (abb.FMCN)**	**406-86-0**	We have found that C-alkylation of N-alkylindoles and N-alkylpyrroles can proceed in good yields by mixing FMCN and AlBr3 in advance to form a homogeneous catalyst.
18	 **C5F5N (Heterocyclic compound)**	**Pentafluoropyridine (abb. 5F-Py)**	**700-16-3**	In the synthesis of polypeptides, the protection and deprotection of side chain functional groups are also important factors. We found that the skeleton of 5F-Py is susceptible to nucleophilic attack, and that the phenolic hydroxyl group can be regenerated by a simple deprotection reaction.
19	 **C_6F_5OH (Benzene derivative)**	**Pentafluorophenol**	**771-61-9**	In order to simplify the polypeptide synthesis, the amino group of amino acids was protected and the carboxyl group was activated in one step, and good yields of protection and activation were obtained.
20	 **C5Cl2F3N (Benzene derivative)**	**3,5-Dichloro-2,4,6-trifluoropridine (abb. Cl2F3P)**	**1737-93-5**	In the final process of fluorinated phenoxycarboxylic acid, which has been developed as a plant growth-inhibiting herbicide, the adoption of a reactive distillation apparatus and a change in the catalyst for the ester exchange reaction have resulted in a significant improvement in yield.

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21	 **C6H4F2O** **(Benzene derivative)**	**2,6-Difluorophenol (abb. 2,6-DFP)**	**28177-48-2**	We investigated a method for synthesizing 4-aminomethyl-2,6-difluorophenol (abb.; ADFP) from 2,6-difluorophenol. Furthermore, we found that the combined use of GABA and ADFP suppressed the binding to GABA receptors by approximately 30% (the first time for a bioisosteric structure of GABA).

* Please contact us for product details.