HOUSE BILL No. 6007

July 8, 1992, Introduced by Rep. Brown and referred to the Committee on Public Health.

A bill to amend sections 7521 and 7525 of Act No. 368 of the Public Acts of 1978, entitled as amended

"Public health code,"

section 7521 as amended by Act No. 30 of the Public Acts of 1990, being sections 333.7521 and 333.7525 of the Michigan Compiled Laws; and to add section 7402a.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

Section 1. Sections 7521 and 7525 of Act No. 368 of the Public Acts of 1978, section 7521 as amended by Act No. 30 of the Public Acts of 1990, being sections 333.7521 and 333.7525 of the Michigan Compiled Laws, are amended and section 7402a is added to read as follows:

SEC. 7402A. (1) EXCEPT AS AUTHORIZED BY THIS ARTICLE, A PERSON SHALL NOT CREATE, DELIVER, OR POSSESS WITH INTENT TO DELIVER ANY OF THE FOLLOWING:

(a) Any compound of the formula

$$CH_3CH_2\text{-}CH(OR_1)\text{-}C(R_2)_2\text{-}CHR_3\text{-}CHR_4\text{-}N(R_5)(R_6)$$

in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(D) $-CO-C_6H_5$, or a substituent that would be $-CO-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF_3.

(ii) R_2 is -C_6H_5, or a substituent that would be -C_6H_5 except that 1, 2, or 3 of the hydrogen atoms of -C_6H_5 have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) -CF_3.

(iii) R_3 is 1 of the following:

(A) -H.

(B) C_1 alkyl or C_2 alkyl.

(iv) R_4 is 1 of the following:

(A) -H.

(B) C_1 alkyl or C_2 alkyl.

(v) Either of the following circumstances exists:

(A) All of the following circumstances exist:

(i) R_5 is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) -CH_2-CH=CH_2.

(ii) R_6 is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) $-CH_2-CH=CH_2$.

(d) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(e) $-CO-C_6H_5$, or a substituent that would be $-CO-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(B) R_5 and R_6 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

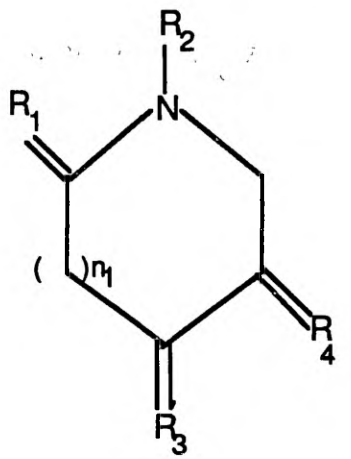
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(b) Any compound of the formula



in which all of the following circumstances exist:

(i) n_1 is 1 or 2. When n is 2, a methylene group is added to the ring expanding it from a 6-member ring to a 7-member ring.

(ii) R_1 is alpha-R_{1-1}:beta-R_{1-2} in which one of R_{1-1} or R_{1-2} is -H and the other of R_{1-1} or R_{1-2} is -H or C_1 alkyl or C_2 alkyl.

(iii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-CH_2-CH=CH_2$.

(D) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(E) $-(CH_2)_{n2}-R_{2-1}$ in which all of the following circumstances exist:

(i) n_2 is 1, 2, 3, or 4.

(ii) R_{2-1} is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) -F.

(c) -Cl.

(d) $-CF_3$.

(iv) Either of the following circumstances exists:

(A) R_3 is R_{3-1}:R_{3-2} and R_4 is R_{4-1}:R_{4-2} in which one of R_{3-1} or R_{3-2} is taken together with one of R_{4-1} or R_{4-2} to form a double bond between the carbon atoms to which they are attached, the other of R_{3-1} or R_{3-2} is 2-thienyl or $-C_6H_5$, and the other of R_{4-1} or R_{4-2} is -H.

(B) R_3 is R_{3-3}:R_{3-4}, R_4 is alpha-R_{4-3}: beta-R_{4-4}, and all of the following circumstances exist:

(i) $R_{3\text{-}3}$ is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) -F.

(c) -Cl.

(d) $-CF_3$.

(ii) $R_{3\text{-}4}$ is 1 of the following:

(a) -OH.

(b) $-O\text{-}R_{3\text{-}5}$ in which $R_{3\text{-}5}$ is 1 of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(iii) $-CO\text{-}(CH_2)_{n3}\text{-}C_6H_5$ in which n3 is 1, 2, 3, or 4, or a substituent that would be $-CO\text{-}(CH_2)_{n3}\text{-}C_6H_5$ in which n3 is 1, 2, 3, or 4 except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) $-CF_3$.

(iii) One of R_{4-3} or R_{4-4} is -H and the other of R_{4-3} or R_{4-4} is 1 of the following:

(a) C_1 alkyl, C_2 alkyl, C_3 alkyl, C_4 alkyl, C_5 alkyl, or C_6 alkyl.

(b) $-CH_2-CH=CH_2$.

(c) $-CH_2-CH=CH-CH_3$.

(c) Any compound of the formula

$$R_1-C(R_2)(R_3)-CHR_4-CHR_5-N(R_6)(R_7)$$

in which all of the following circumstances exist:

(i) R_1 is any of the following:

(A) -CN.

(B) $-O-CO-R_{1-1}$, in which R_{1-1} is C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-CO-R_{1-2}$ in which R_{1-2} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) -O-R_{1-3} in which R_{1-3} is 1 of the following :

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iv) -N(R_{1-4})(R_{1-5}) in which either of the following circumstances exists:

(a) R_{1-4} and R_{1-5} are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) -CH_2-CH=CH_2.

(b) R_{1-4} and R_{1-5} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(D) 2-pyrimidinyl or 4-pyrimidinyl.

(E) C_6H_5, or a substituent that would be -C_6H_5 except that 1, 2, or 3 of the hydrogen atoms of -C_6H_5 have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF_3.

(ii) R_2 is -C_6H_5, or a substituent that would be -C_6H_5 except that 1, 2, or 3 of the hydrogen atoms of -C_6H_5 have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) -CF_3.

(iii) R_3 is $-CH_2-C_6H_5$, or a substituent that would be $-CH_2-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) $-CF_3$.

(iv) R_4 is 1 of the following:

(A) -H.

(B) C_1 alkyl or C_2 alkyl.

(v) R_5 is 1 of the following:

(A) -H.

(B) C_1 alkyl or C_2 alkyl.

(vi) Either of the following circumstances exists:

(A) R_6 and R_7 are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(B) R_6 and R_7 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(d) Any compound of the formula

R_1-O-C(C_6H_5)$_2$-COO-CHR_2-CHR_3-N(R_4)(R_5)

in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl or C_2 alkyl.

(iii) R_3 is 1 of the following:

(A) -H.

(B) C_1 alkyl or C_2 alkyl.

(iv) Either of the following circumstances exists:

(A) R_4 and R_5 are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) -CH_2-CH=CH_2.

(B) R_4 and R_5 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by corresponding number of 1 or more of the following:

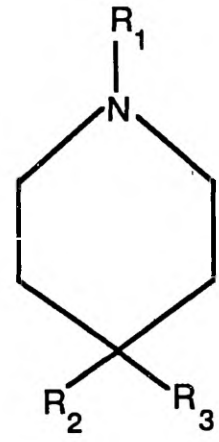
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(e) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is any of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-CH_2-CH=CH_2$.

(D) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(E) $-CO-CH_2-C_6H_5$, or a substituent that would be $-CO-CH_2-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(F) $-(CH_2)_{n1}-O-(CH_2)_{n2}-R_{1-1}$ in which all of the following circumstances exist:

(i) n_1 is 1, 2, 3, or 4.

(ii) n_2 is 1, 2, 3, or 4.

(iii) R_{1-1} is 1 of the following:

(a) 2-tetrahydrofuranyl or 3-tetrahydrofuranyl.

(b) 2-tetrahydropyranyl, 3-tetrahydropyranyl, or 4-tetrahydropyranyl.

(c) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(v) -O-R_{1-2} in which R_{1-2} is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(G) $-(CH_2)_{n3}-N(R_{1-3})(R_{1-4})$ in which all of the following circumstances exist:

(i) n_3 is 1, 2, 3, or 4.

(ii) Either of the following circumstances exists:

(a) All of the following circumstances exist:

(i) R_{1-3} is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-CH_2-CH=CH_2$.

(D) $-C_6H_5$.

(ii) R_{1-4} is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-CH_2-CH=CH_2$.

(b) R_{1-3} and R_{1-4} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hyrdogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(H) $-(CH_2)_{n4}-C(R_{1-5})(R_{1-6})(R_{1-7})$ in which all of the following circumstances exist:

(i) n_4 is 1, 2, 3, or 4.

(ii) R_{1-5} and R_{1-6} are the same or different but each is 1 of the following:

(a) -H.

(b) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(iii) R_{1-7} is 1 of the following:

(a) -CN.

(b) $-O-R_{1-8}$ in which R_{1-8} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(c) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(v) $-NH_2$.

(ii) R_2 is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) $-CF_3$.

(E) $-O-R_{2-1}$ in which R_{12} is 1 of the following:

(i) -H.

(ii) C_1 alkyl or C_2 alkyl.

(iii) C_1 acyl, C_2 acyl, or C_3 acyl.

(iv) $-N(R_{2-2})(R_{2-3})$ in which either of the following circumstances exists:

(a) R_{2-2} and R_{2-3} are the same or different, but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(b) R_{2-2} and R_{2-3} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(iii) R_3 is 1 of the following:

(A) -CN.

(B) $-CO-R_{3-1}$ in which R_{3-1} is 1 of the following:

(i) -OH.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) C_1 alkoxy, C_2 alkoxy, C_3 alkoxy, or C_4 alkoxy.

(iv) $-N(R_{3-2})(R_{3-3})$ in which either of the following circumstances exists:

(a) R_{3-2} and R_{3-3} are the same or different, but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(b) R_{3-2} and R_{3-3} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hyrdogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

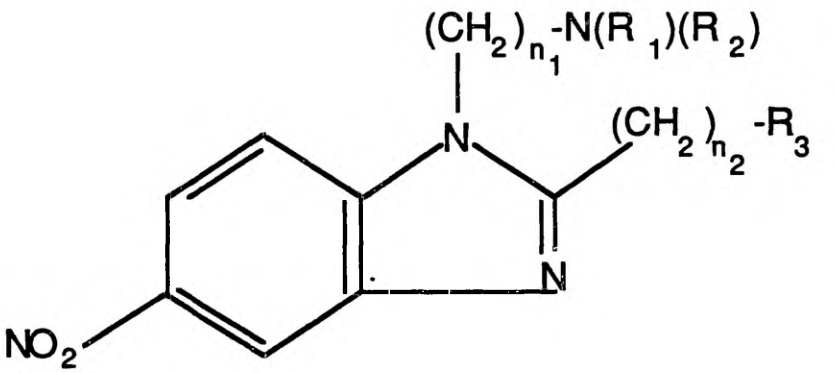
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(f) Any compound of the formula



in which all of the following circumstances exist:

(i) n_1 is 1, 2, 3, or 4.

(ii) n_2 is 1, 2, 3, or 4.

(iii) Either of the following circumstances exists:

(A) R_1 and R_2 are the same or different, but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(B) R_1 and R_2 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hyroden atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(iv) R_3 is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) $-CF_3$.

(E) $-O-R_{3-1}$ in which R_{3-1} is 1 of the following:

(i) -H.

(ii) C_1 alkyl or C_2 alkyl.

(iii) C_1 acyl, C_2 acyl, or C_3 acyl.

(g) Any compound of the formula

$$R_1\text{-}CO\text{-}N(R_2)(R_3)$$

in which all of the following circumstances exist:

(i) R_1 is C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) R_2 is 1 of the following:

(A) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(B) 2-pyrimidinyl or 4-pyrimidinyl.

(C) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(iii) R_3 is $-C(H)(R_{3-1})-C(H)(R_{3-2})-N(R_{3-3})(R_{3-4})$ in which all of the following circumstances exist:

(A) R_{3-1} is 1 of the following:

(i) -H.

(ii) C_1 alkyl or C_2 alkyl.

(B) R_{3-2} is 1 of the following:

(i) -H.

(ii) C_1 alkyl or C_2 alkyl.

(C) Either of the following circumstances exists:

(i) R_{3-3} and R_{3-4} are the same or different, but each is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) $-CH_2-CH=CH_2$.

(d) $-(CH_2)_{n1}-C_6H_5$ in which n_1 is 1, 2, or 3, or a substituent that would be $-(CH_2)_{n1}-C_6H_5$ in which n_1 is 1, 2, or 3 except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(ii) R_{3-3} and R_{3-4} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(a) 1-pyrrolidinyl.

(b) 1-piperidinyl.

(c) 1-morpholinyl.

(d) 1-piperazinyl.

(e) A substituent that would be 1-piperazinyl except that the hyrodgen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(iii) 2-pyrimidinyl, or 4-pyrimidinyl.

(iv) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

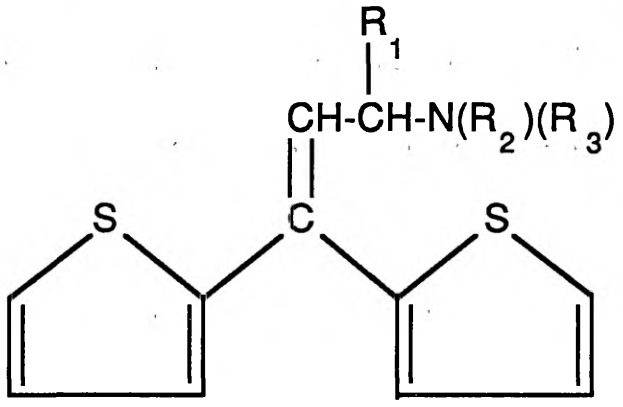
(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) -F.

(c) -Cl.

(d) $-CF_3$.

(h) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-CH_2-CH=CH_2$.

(ii) Either of the following circumstances exists:

(A) R_2 and R_3 are the same or different, but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(B) R_2 and R_3 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

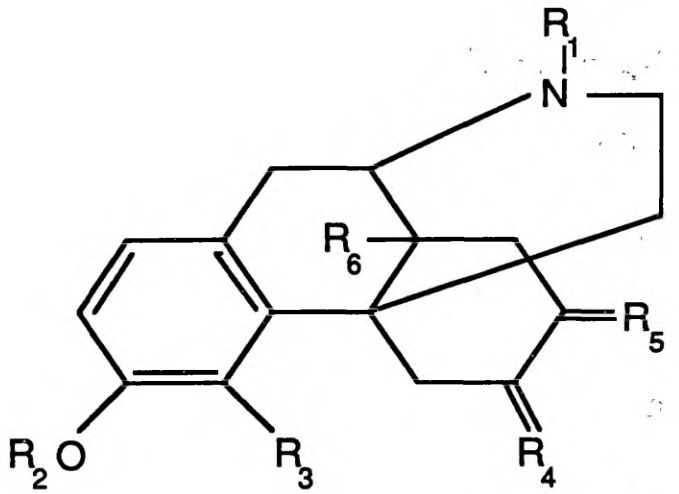
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(i) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-CH_2-CH=CH_2$.

(D) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(E) $-(CH_2)_{n1}-C_6H_5$ in which n_1 is 1, 2, 3, or 4, or a substituent that would be $-(CH_2)_{n1}-C_6H_5$ in which n_1 is 1, 2, 3, or 4 except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(F) $-(CH_2)_{n2}-CO-C_6H_5$ in which n2 is 1, 2, 3, or 4, or a substituent that would be $-(CH_2)_{n2}-CO-C_6H_5$ in which n2 is 1, 2, 3, or 4 except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(iii) R_3 is 1 of the following:

(A) -H.

(B) -OH.

(C) C_1 alkoxy, C_2 alkoxy, or C_3 alkoxy.

(iv) Either of the following circumstances exists:

(A) R_4 is R_{4-1}:R_{4-2} and R_5 is R_{5-1}:R_{5-2} in which all of the following circumstances exist:

(i) One of R_{4-1} or R_{4-2} is taken together with 1 of R_{5-1} or R_{5-2} to form a double bond between the carbon atoms to which they are attached.

(ii) The other of R_{4-1} or R_{4-2} is C_1 acyloxy, C_2 acyloxy, C_3 acyloxy, or C_4 acyloxy.

(iii) The other of R_{5-1} or R_{5-2} is -H.

(B) Both of the following circumstances exist:

(i) R_4 is 1 of the following:

(a) -H:-H.

(b) -H: -O-R_{4-3} in which R_{4-3} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

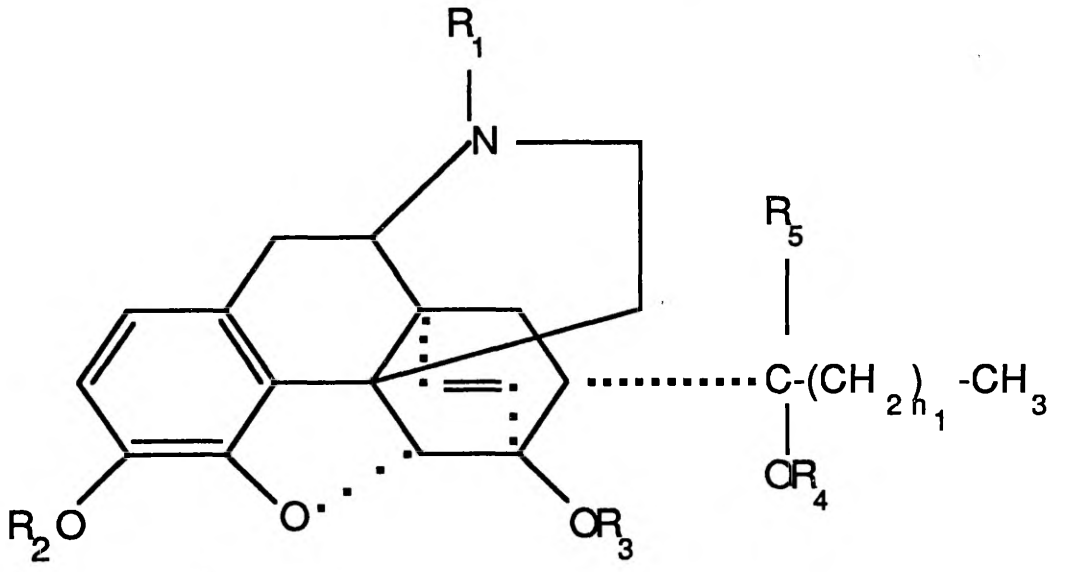
(ii) R_5 is -H:-H.

(v) R_6 is 1 of the following:

(A) -H.

(B) -OH.

(j) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(D) $-CH_2-CH=CH_2$.

(E) cyclopropylmethyl.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(iii) R_3 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(iv) R_4 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

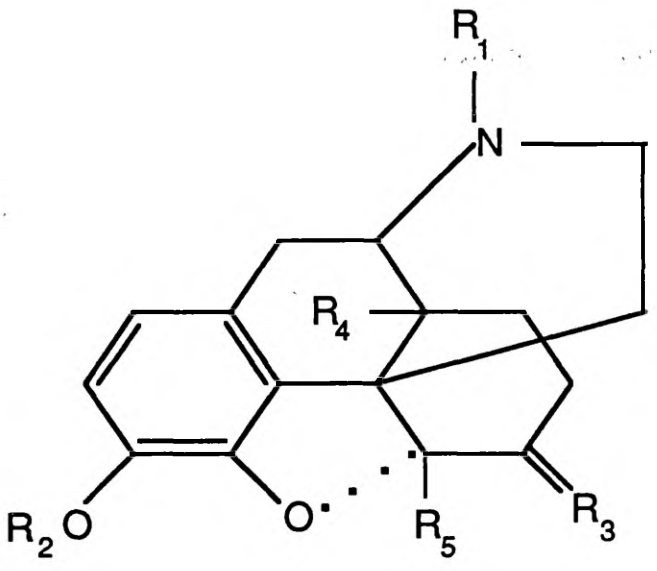
(v) R_5 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(vi) n_1 is 0, 1, 2, 3, or 4.

(k) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(D) $-CH_2-CH=CH_2$.

(E) cyclopropylmethyl.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(iii) R_3 is 1 of the following:

(A) =O.

(B) R_{3-1}:R_{3-2} in which all of the following circumstances exist:

(i) R_{3-1} is 1 of the following:

(a) -H.

(b) C_1 alkyl or C_2 alkyl.

(ii) R_{3-2} is 1 of the following:

(a) -H.

(b) -O-R_{3-3}, in which R_{3-3} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(iv) R_4 is 1 of the following:

(A) -H.

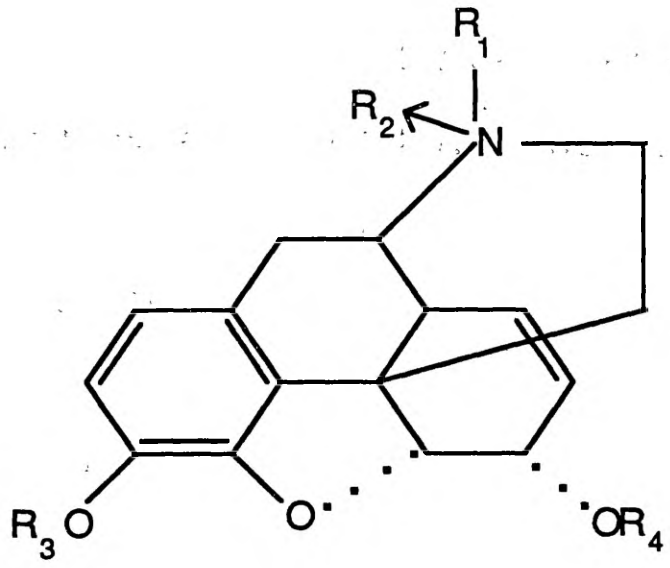
(B) -OH.

(v) R_5 is 1 of the following:

(A) -H.

(B) $-CH_3$.

(l) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(D) $-CH_2-CH=CH_2$.

(E) cyclopropylmethyl.

(ii) R_2 does not exist or is 1 of the following:

(A) C1 alkyl.

(B) N-oxide.

(iii) R_3 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, C_4 acyl, C_5 acyl, C_6 acyl, C_7 acyl, C_8 acyl, C_9 acyl, C_{10} acyl, C_{11} acyl, C_{12} acyl, C_{13} acyl, C_{14} acyl, C_{15} acyl, C_{16} acyl, C_{17} acyl, or C_{18} acyl.

(D) nicotinyl.

(E) $-(CH_2)_{n1}-C_6H_5$ in which n_1 is 1, 2, 3, or 4, or a substituent that would be $-(CH_2)_{n1}-C_6H_5$ in which n_1 is 1, 2, 3, or 4 except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(F) $-(CH_2)_{n2}-N(R_{3-1})(R_{3-2})$ in which all of the following circumstances exist:

(i) n_2 is 1, 2, 3, or 4.

(ii) Either of the following circumstances exists:

(a) R_{3-1} and R_{3-2} are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(b) R_{3-1} and R_{3-2} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom of the fourth position of 1-piperazinyl is replaced by 1 of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have

been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(iv) R_4 is 1 of the following:

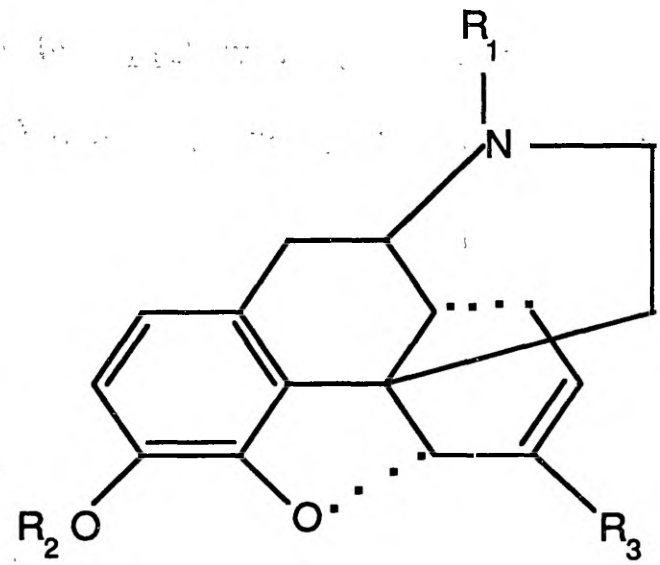
(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, C_4 acyl, C_5 acyl, C_6 acyl, C_7 acyl, C_8 acyl, C_9 acyl, C_{10} acyl, C_{11} acyl, C_{12} acyl, C_{13} acyl, C_{14} acyl, C_{15} acyl, C_{16} acyl, C_{17} acyl, or C_{18} acyl.

(D) nicotinyl.

(m) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(D) $-CH_2-CH=CH_2$.

(E) cyclopropylmethyl.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, C_4 acyl, C_5 acyl, C_6 acyl, C_7 acyl, C_8 acyl, C_9 acyl, C_{10} acyl, C_{11} acyl, C_{12} acyl, C_{13} acyl, C_{14} acyl, C_{15} acyl, C_{16} acyl, C_{17} acyl, or C_{18} acyl.

(D) nicotinyl.

(E) $-(CH2)_{n1}-C_6H_5$ in which n_1 is 1, 2, 3, or 4, or a substituent that would be $-(CH2)_{n1}-C_6H_5$ in which n_1 is 1, 2, 3, or 4 except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(F) $-(CH2)_{n2}-N(R2\text{-}1)(R2\text{-}2)$ in which all of the following circumstances exist:

(i) n_2 is 1, 2, 3, or 4.

(ii) Either of the following circumstances exists:

(a) $R_{2\text{-}1}$ and $R_{2\text{-}2}$ are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(b) R_{2-1} and R_{2-2} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(iii) R_3 is 1 of the following:

(A) -H.

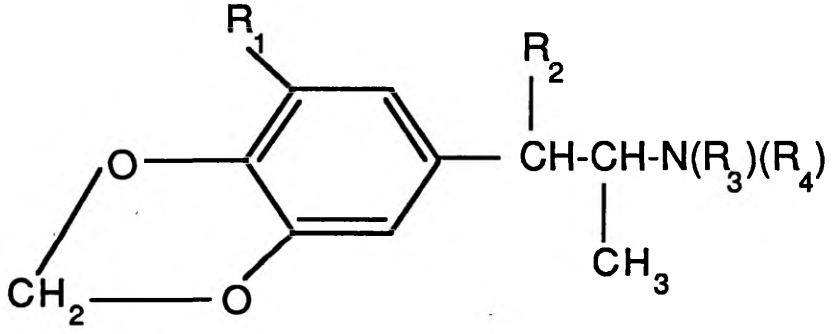
(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-O-R_{3-1}$ in which R_{3-1} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(n) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) $-O-R_{1-1}$ in which R_{1-1} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) C_1 acyl, C_2 acyl, C_3 acyl, C_4 acyl, C_5 acyl, C_6 acyl, C_7 acyl, C_8 acyl, C_9 acyl, C_{10} acyl, C_{11} acyl, C_{12} acyl, C_{13} acyl, C_{14} acyl, C_{15} acyl, C_{16} acyl, C_{17} acyl, or C_{18} acyl.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl.

(iii) Either of the following circumstances exists:

(A) Both of the following circumstances exist:

(i) R_3 is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) $-CH_2-CH=CH_2$.

(ii) R_4 is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) $-CH_2-CH=CH_2$.

(d) -OH.

(B) R_3 and R_4 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

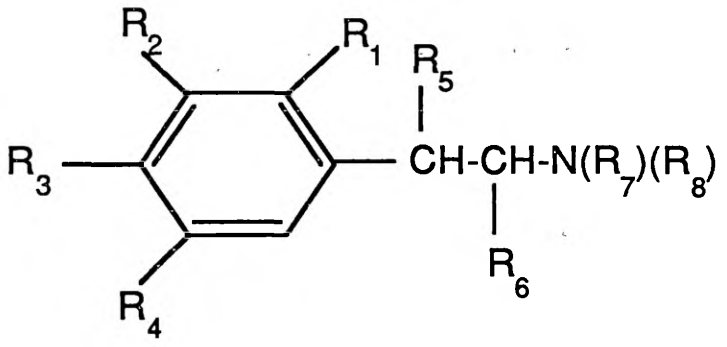
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(e) -Cl.

(f) $-CF_3$.

(o) Any compound of the formula



in which all of the following circumstances exist:

(i) Both of the following circumstances exist:

(A) R_1, R_2, R_3, and R_4 are the same or different but each is 1 of the following:

(i) -H.

(ii) -F.

(iii) -Cl.

(iv) -Br.

(v) $-CF_3$.

(vi) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(vii) $-CH_2-CH=CH_2$.

(viii) $-O-R_{1-1}$ in which R_{1-1} is 1 of the following:

(a) -H.

(b) C_1 alkyl or C_2 alkyl.

(c) C_1 acyl, C_2 acyl, or C_3 acyl.

(B) At least 1 of R_1, R_2, R_3, or R_4 is -H.

(ii) R_5 and R_6 are the same or different but each is 1 of the following:

(A) -H.

(B) C_1 alkyl.

(iii) Either of the following circumstances exists:

(A) Both of the following circumstances exist:

(i) R_7 is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) $-CH_2-CH=CH_2$.

(d) -OH.

(ii) R_8 is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) $-CH_2-CH=CH_2$.

(B) R_7 and R_8 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

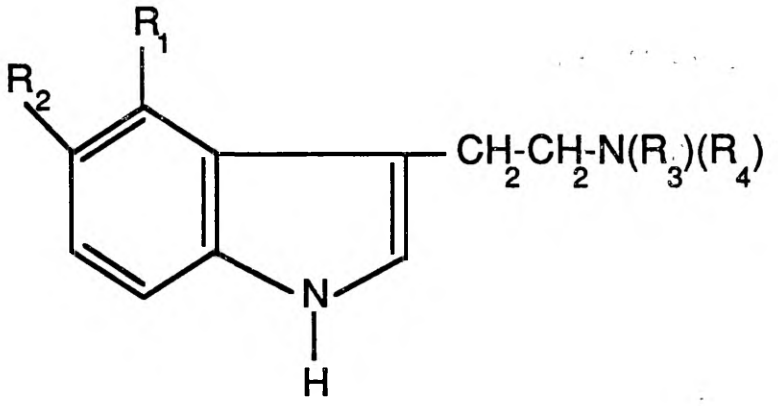
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(p) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) -O-R_{1-1} in which R_{1-1} is 1 of the following:

(i) -H.

(ii) -P(O)$(OH)_2$.

(iii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iv) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(ii) Both of the following circumstances exist:

(A) R_2 is 1 of the following:

(i) -H.

(ii) -O-R_{2-1} in which R_{2-1} is 1 of the following:

(a) -H.

(b) $-P(O)(OH)_2$.

(c) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(d) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(B) At least 1 of R_1 or R_2 is -H.

(iii) Either of the following circumstances exists:

(A) R_3 and R_4 are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(B) R_3 and R_4 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

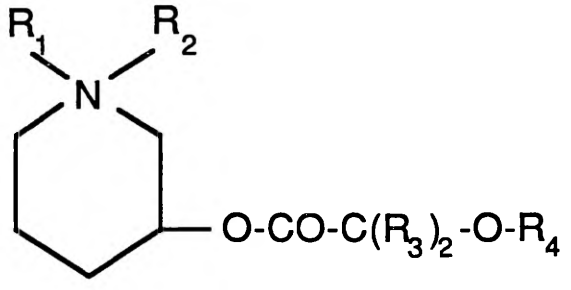
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(q) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 does not exist or is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(D) $-CH_2-CH=CH_2$.

(E) $-(CH_2)_{n1}-R_{1-1}$ in which all of the following circumstances exist:

(i) n_1 is 1, 2, 3, or 4.

(ii) R_{1-1} is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) -F.

(c) -Cl.

(d) $-CF_3$.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-CH_2-CH=CH_2$.

(iii) R_3 is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) $-CF_3$.

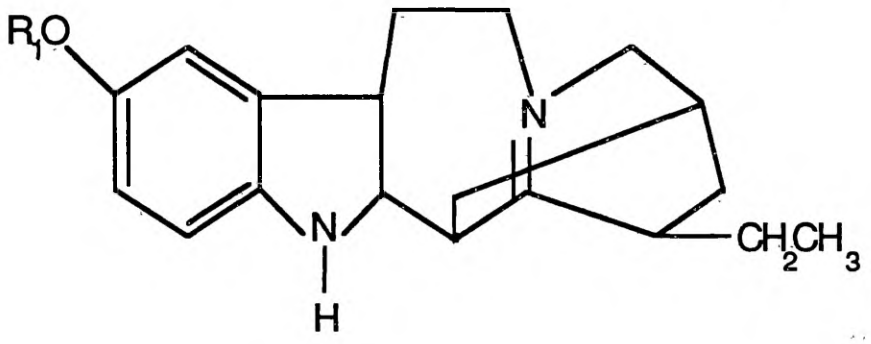
(iv) R_4 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(r) Any compound of the formula



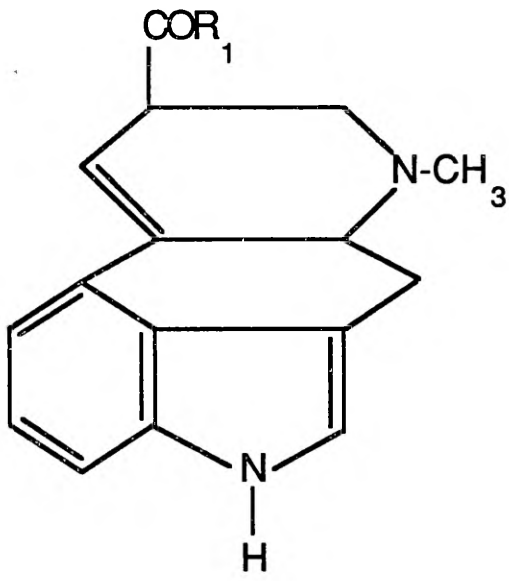
in which R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(s) Any compound of the formula



in which R_1 is 1 of the following:

(A) $-OR_{1-1}$ in which R_{1-1} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(B) $-N(R_{1-2})(R_{1-3})$ in which either of the following circumstances exists:

(i) R_{1-2} and R_{1-3} are the same or different but each is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) $-CH_2-CH=CH_2$.

(ii) R_{1-2} and R_{1-3} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(a) 1-pyrrolidinyl.

(b) 1-piperidinyl.

(c) 1-morpholinyl.

(d) 1-piperazinyl.

(e) 1-piperazinyl, or a substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(iii) 2-pyrimidinyl or 4-pyrimidinyl.

(iv) -C_6H_5, or a substituent that would be -C_6H_5 except that 1, 2, or 3 of the hydrogen atoms of -C_6H_5 have been replaced by 1 or more of the following:

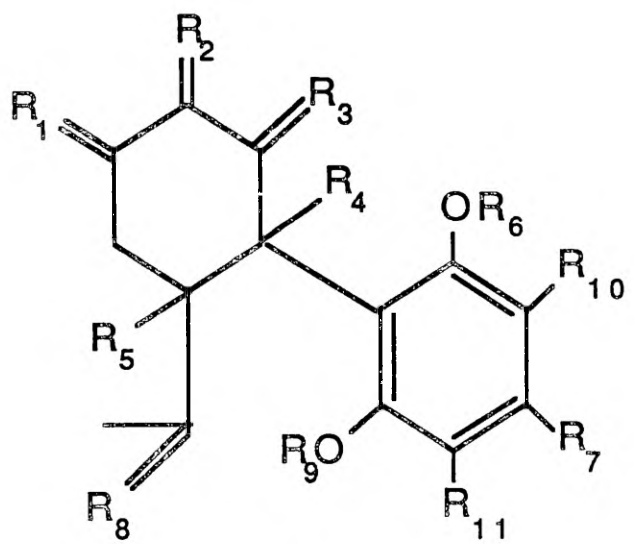
(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) -CF_3.

(t) Any compound of the formula



in which all of the following circumstances exist:

(i) One of the following circumstances exists:

(A) All of the following circumstances exist:

(i) R_1 is R_{1-1}:R_{1-2} and R_2 is R_{2-1}:R_{2-2} in which all of the following circumstances exist:

(a) One of R_{1-1} or R_{1-2} is taken together with 1 of R_{2-1} or R_{2-2} to form a double bond between the carbon atoms to which they are attached.

(b) The other of R_{1-1} or R_{1-2} is -H.

(c) The other of R_{2-1} or R_{2-2} is C_1 alkyl, C_2 alkyl, or C_3 alkyl, or -CH_2-O-R_{2-3} in which R_{2-3} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(ii) R_3 is -H:-H.

(iii) R_4 is alpha-H.

(iv) R_5 is beta-H.

(B) All of the following circumstances exist:

(i) R_2 is R_{2-4}:R_{2-5} and R_3 is R_{3-1}:R_{3-2} in which all of the following circumstances exist:

(a) One of R_{2-4} or R_{2-5} is taken together with 1 of R_{3-1} or R_{3-2} to form a double bond between the carbon atoms to which they are attached.

(b) The other of R_{2-4} or R_{2-5} is 1 of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) $-CH_2-O-R_{2-6}$ in which R_{2-6} is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(c) The other of R_{3-1} or R_{3-2} is -H.

(ii) R_1 is -H:-H.

(iii) R_4 is alpha-H.

(iv) R_5 is beta-H.

(C) All of the following circumstances exist:

(i) R_4 and R_5 are taken together form a double bond between the carbon atoms to which they are attached.

(ii) R_1 and R_3 are each-H:-H.

(iii) R_2 is -H:R_{2-7} in which R_{2-7} is 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) $-CH_2-O-R_{2-8}$ in which R_{2-8} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(D) All of the following circumstances exist:

(i) R_1 is -H:-H.

(ii) R_2 is =O.

(iii) R_3 is -H:-H.

(iv) R_4 is -H.

(v) R_5 is -H.

(ii) R_6 is 1 of the following:

(A) -H.

(B) C_1 alkyl or C_2 alkyl.

(C) C_1 acyl, C_2 acyl, or C_3 acyl.

(iii) R_7 is 1 of the following:

(A) C_1 alkyl, C_2 alkyl, C_3 alkyl, C_4 alkyl, C_5 alkyl, C_6 alkyl, C_7 alkyl, C_8 alkyl, C_9 alkyl, or C_{10} alkyl.

(B) C_2 alkenyl, C_3 alkenyl, C_4 alkenyl, C_5 alkenyl, C_6 alkenyl, C_7 alkenyl, C_8 alkenyl, C_9 alkenyl, or C_{10} alkenyl.

(iv) Either of the following circumstances exists:

(A) R_8 is R_{8-1}:R_{8-2} in which both of the following circumstances exist:

(i) One of R_{8-1} or R_{8-2} and R_9 are taken together to form a heterocyclic ring containing oxygen.

(ii) The other of R_{8-1} or R_{8-2} is C_1 alkyl.

(B) Both of the following circumstances exist:

(i) R_9 is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(ii) R_8 is $=CH_2$.

(v) R_{10} is 1 of the following:

(A) -H.

(B) -CO-O-R_{10-1} in which R_{10-1} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(vi) R_{11} is 1 of the following:

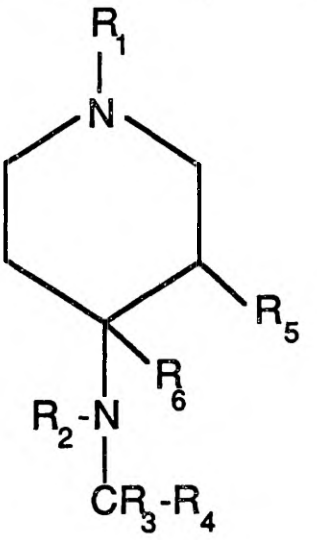
(A) -H.

(B) -CO-O-R_{11-1} in which R_{11-1} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(u) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-CH_2-CH=CH_2$.

(D) C_1 acyl, C_2 acyl, C_3 acyl, or C_4 acyl.

(E) $-(CH_2)_{n1}-R_{1-1}$ in which both of the following circumstances exist:

(i) n_1 is 1, 2, 3, or 4.

(ii) R_{1-1} is 1 of the following:

(a) 2-thiophene.

(b) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(F) $-C(H)(R_{1-2})-C(H)(R_{1-3})-R_{1-4}$ in which all of the following circumstances exist:

(i) R_{1-2} is 1 of the following:

(a) -H.

(b) C_1 alkyl or C_2 alkyl.

(ii) R_{1-3} is 1 of the following:

(a) -H.

(b) C_1 alkyl or C_2 alkyl.

(c) -OH.

(iii) R_{1-4} is 1 of the following:

(a) 2-thiophene.

(b) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -C1.

(iv) $-CF_3$.

(v) 4-ethyl-4,5-dihydro-5-oxo-1H-tetrazol-1-yl.

(ii) R_2 is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) $-CF_3$.

(iii) R_3 is 1 of the following:

(A) =O.

(B) =S.

(iv) R_4 is C_1 alkyl, C_2 alkyl, C_3 alkyl, C_4 alkyl, or C_5 alkyl or a compound that would be C_1 alkyl, C_2 alkyl, C_3 alkyl, C_4 alkyl, or C_5 alkyl except that 1 hydrogen atom in the alkyl group has been replaced by -OH.

(v) R_5 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(vi) R_6 is 1 of the following:

(A) -H.

(B) $-(CH_2)_{n2}-O-R_{6-1}$ in which both of the following circumstances exist:

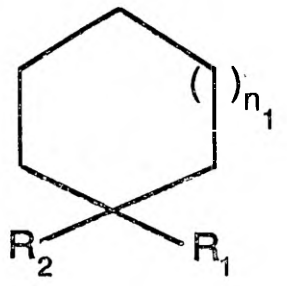
(i) n_2 is 1 or 2.

(ii) R_{6-1} is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(v) Any compound of the formula



in which all of the following circumstances exist:

(i) n_1 is 0 or 1.

(ii) R_1 is -N(R_{1-1})(R_{1-2}) in which 1 of the following circumstances exists:

(A) R_{1-1} and R_{1-2} are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) -CH_2-CH=CH_2.

(B) R_{1-1} and R_{1-2} taken together with the attached nitrogen atom form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(v) 2-thiophene.

(iii) R_2 is 1 of the following:

(A) -CN.

(B) -C_6H_5, or a substituent that would be -C_6H_5 except that 1, 2, or 3 of the hydrogen atoms of -C_6H_5 have been replaced by a corresponding number of 1 or more of the following:

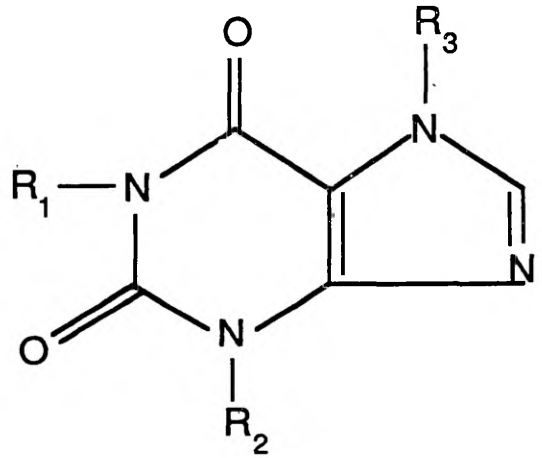
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF_3.

(w) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) R_3 is $-(CH_2)_{n1}-N(R_{3-1})(R_{3-2})$ in which all of the following circumstances exist:

(A) n_1 is 1, 2, 3, or 4.

(B) R_4 is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) R_5 is $-C(H)(R_{3-3})-C(H)(R_{3-4})-R_{3-5}$ in which all of the following circumstances exist:

(i) R_{3-3} is 1 of the following:

(a) -H.

(b) C_1 alkyl.

(ii) R_{3-4} is 1 of the following:

(a) -H.

(b) C_1 alkyl.

(iii) R_{3-5} is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been

replaced by a corresponding number of 1 or more of the following:

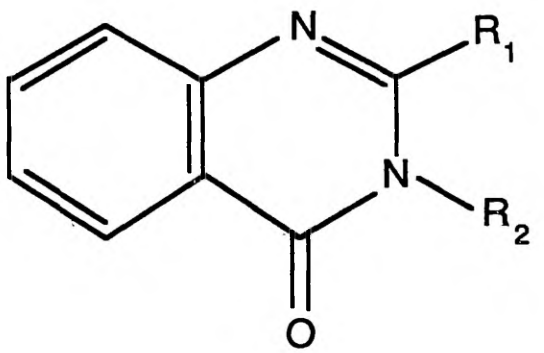
(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) -F.

(c) -Cl.

(d) $-CF_3$.

(x) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) R_2 is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

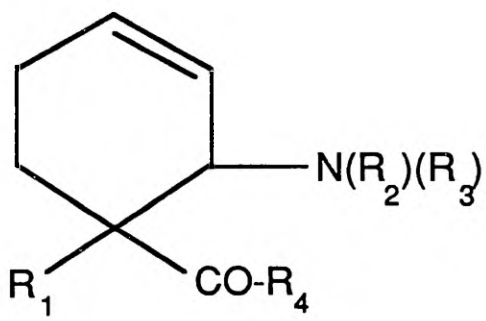
(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) $-CF_3$.

(y) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) $-CF_3$.

(ii) Either of the following circumstances exists:

(A) R_2 and R_3 are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(B) R_2 and R_3 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(iii) R_4 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-O-R_{4-1}$ in which R_5 is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-N(R_{4-2})(R_{4-3})$ in which either of the following circumstances exists:

(a) R_{4-2} and R_{4-3} are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(b) R_{4-2} and R_{4-3} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(v) A substituent that would be 1-piperazinyl except that the hydrogen atom at the fourth position of 1-piperazinyl is replaced by 1 of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

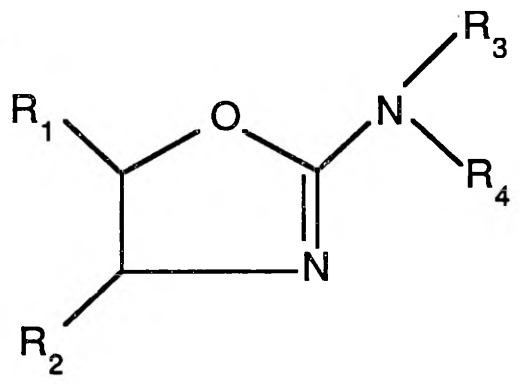
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF_3.

(z) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is -C_6H_5, or a substituent that would be -C_6H_5 except that 1, 2, or 3 of the hydrogen atoms of -C_6H_5 have been replaced by 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) -CF_3.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) Either of the following circumstances exists:

(A) R_3 and R_4 are the same or different but each is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CH=CH_2$.

(B) R_3 and R_4 are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

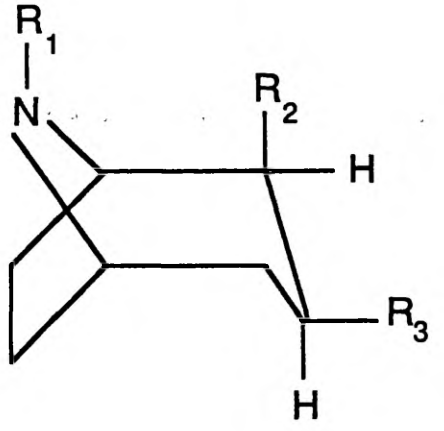
(i) 1-pyrrolidinyl.

(ii) 1-piperidinyl.

(iii) 1-morpholinyl.

(iv) 1-piperazinyl.

(aa) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) cyclopropyl.

(D) $-CH_2-CH=CH_2$.

(E) $-CH_2-CH=C(CH_3)_2$.

(F) $-CH_2$-cyclopropyl.

(G) $-CH_2-CH_2-CH=CH_2$.

(H) $-COO-R_{1-1}$ in which R_{1-1} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-CH_2-CF_3$.

(iv) $-CH_2-CCl_3$.

(ii) R_2 is $-COO-R_{2-1}$ in which R_{2-1} is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(C) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(v) $-O-R_{2-2}$ in which R_{2-2} is 1 of the following:

(a) -H.

(b) C_1 alkyl or C_2 alkyl.

(c) C_1 acyl, C_2 acyl, or C_3 acyl.

(D) $-CH_2-O-R_{2-3}$ in which R_{2-3} is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) -CO-R_{2-4} in which R_{2-4} is 1 of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(iii) R_3 is 1 if the following:

(A) -OH.

(B) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(v) -O-R_{3-1} in which R_{3-1} is 1 of the following:

(a) -H.

(b) C_1 alkyl or C_2 alkyl.

(c) C_1 acyl, C_2 acyl, or C_3 acyl.

(C) -O-CO-R3-2 in which R3-2 is 1 of the following:

(i) -H.

(ii) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) -F.

(c) -Cl.

(d) $-CF_3$.

(e) -O-R3-3 in which R3-3 is 1 of the following:

(i) -H.

(ii) C_1 alkyl or C_2 alkyl.

(iii) C_1 acyl, C_2 acyl, or C_3 acyl.

(D) $-O-CO-CH_2-CH_2-N(R3\text{-}4)(R3\text{-}5)$ in which either of the following circumstances exists:

(i) R_{3-4} and R_{3-5} are the same or different but each is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(c) $-CH_2-CH=CH_2$.

(ii) R_{3-4} and R_{3-5} are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

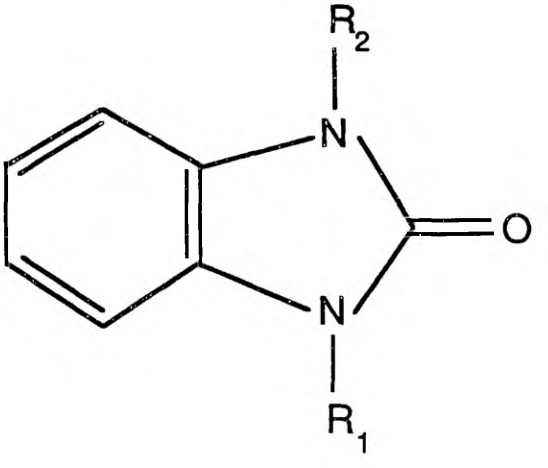
(a) 1-pyrrolidinyl.

(b) 1-piperidinyl.

(c) 1-morpholinyl.

(d) 1-piperazinyl.

(bb) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -CO-R_{1-1} in which R_{1-1} is C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) R_2 would be 4-piperidinyl except that a hydrogen atom at the one position is replaced by $-(CH_2)_{n1}-C(R_{2-1})(R_{2-2})-R_{2-3}$ and all of the following circumstances exist:

(A) n_1 is 1, 2, or 3.

(B) R_{2-1} and R_{2-2} are the same or different but each is 1 of the following:

(i) $-CH_2-C_6H_5$.

(ii) A substituent that would be $-CH_2-C_6H_5$ in which 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(a) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(b) -F.

(c) -Cl.

(d) $-CF_3$.

(C) R_{2-3} is 1 of the following:

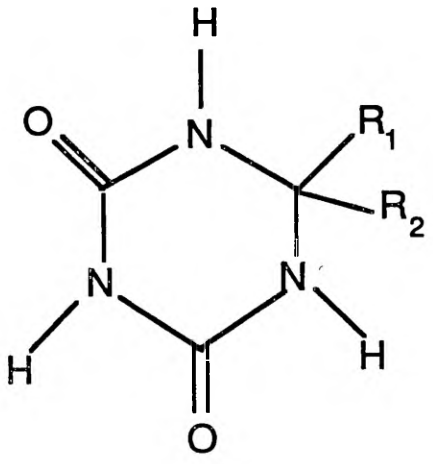
(i) -CN.

(ii) -COO-R2-4 in which R2-4 is 1 of the following:

(a) -H.

(b) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(cc) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) $-CH_2-CH=CH_2$.

(ii) R_2 is 1 of the following:

(A) C_1 alkyl, C_2 alkyl, C_3 alkyl, C_4 alkyl, C_5 alkyl, or C_6 alkyl.

(B) cycloalkyl.

(C) -C_6H_5, or a substituent that would be -C_6H_5 except that 1, 2, or 3 of the hydrogen atoms of -C_6H_5 have been replaced by a corresponding number of 1 or more of the following:

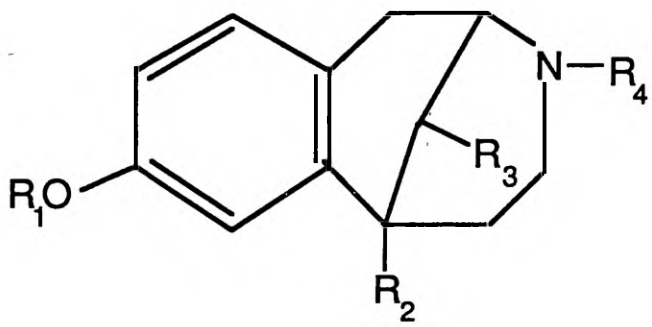
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF_3.

(dd) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 acyl, C_2 acyl, C_3 acyl, C_4 acyl, or C_5 acyl.

(C) -CO-C_6H_5.

(ii) R_2 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) R_3 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iv) R_4 is 1 of the following:

(A) C_1 alkyl, C_2 alkyl, C_3 alkyl, or C_4 alkyl.

(B) -CH_2-CH=CH_2.

(C) -$(CH_2)_{n1}$-R_5 in which both of the following circumstances exist:

(i) n_1 is 1, 2, 3, or 4.

(ii) R_5 is 1 of the following:

(a) cyclopropyl.

(b) -C_6H_5, or a substituent that would be -C_6H_5 except that 1, 2, or 3 of the hydrogen atoms of -C_6H_5 have been replaced by a corresponding number of 1 or more of the following:

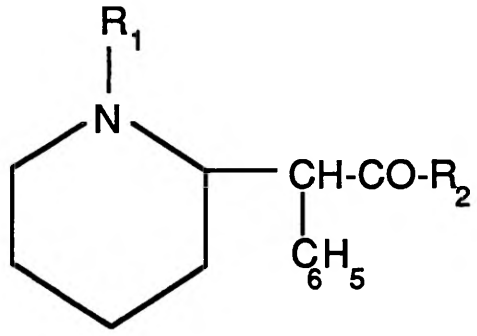
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) $-CF_3$.

(ee) Any compound of the formula



in which all of the following circumstances exist:

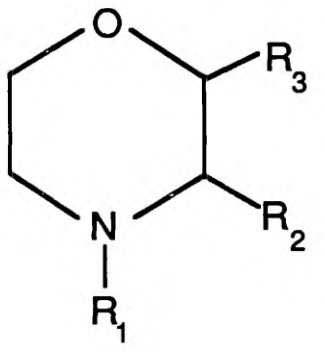
(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) R_2 is C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ff) Any compound of the formula



in which all of the following circumstances exist:

(i) R_1 is 1 of the following:

(A) -H.

(B) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(ii) R_2 is C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(iii) R_3 is $-C_6H_5$, or a substituent that would be $-C_6H_5$ except that 1, 2, or 3 of the hydrogen atoms of $-C_6H_5$ have been replaced by a corresponding number of 1 or more of the following:

(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(B) -F.

(C) -Cl.

(D) $-CF_3$.

(gg) Any compound of the formula

$C_6H_5\text{-}CH_2\text{-}CO\text{-}CH_3$.

(hh) Any salt or stereoisomer of a compound enumerated in subdivisions (a) to (gg).

(2) A PERSON WHO VIOLATES SUBSECTION (1) IS GUILTY OF A FELONY, PUNISHABLE BY IMPRISONMENT FOR NOT MORE THAN 15 YEARS, OR A FINE OF NOT MORE THAN $250,000.00, OR BOTH.

(3) EXCEPT AS AUTHORIZED BY THIS ARTICLE, A PERSON SHALL NOT POSSESS ANY SUBSTANCE DESCRIBED IN SUBSECTION (1)(A) TO (HH).

(4) A PERSON WHO VIOLATES SUBSECTION (3) IS GUILTY OF A FELONY, PUNISHABLE BY IMPRISONMENT FOR NOT MORE THAN 4 YEARS, OR A FINE OF NOT MORE THAN $2,000.00, OR BOTH.

(5) THIS SECTION DOES APPLY TO A SUBSTANCE CLASSIFIED AS A SCHEDULE 1, 2, 3, 4, OR 5 CONTROLLED SUBSTANCE.

(6) THIS SECTION DOES NOT APPLY TO A PERSON WHO MANUFACTURES OR DISTRIBUTES A SUBSTANCE IN CONFORMANCE WITH AN APPROVED NEW DRUG APPLICATION OR AN EXEMPTION FOR INVESTIGATIONAL USE WITHIN THE MEANING OF SECTION 505 OF THE FEDERAL FOOD, DRUG, AND COSMETIC ACT, 21 U.S.C. 355. FOR PURPOSES OF THIS SECTION, SECTION 505 OF THE FEDERAL FOOD, DRUG, AND COSMETIC ACT SHALL BE APPLICABLE TO THE INTRODUCTION OR DELIVERY FOR INTRODUCTION OF ANY NEW DRUG INTO INTRASTATE, INTERSTATE, OR FOREIGN COMMERCE.

Sec. 7521. (1) The following property is subject to forfeiture:

(a) A prescription form, official prescription form, controlled substance, an imitation controlled substance, a controlled substance analogue, an androgenic anabolic steroid, ~~or~~ a counterfeit androgenic anabolic steroid, ~~which~~ OR A SUBSTANCE REGULATED UNDER SECTION 7402A(1)(A) TO (HH) THAT has been manufactured, CREATED, distributed, DELIVERED, dispensed, used, possessed, or acquired in violation of this article or section 17766a.

(b) A raw material, product, or equipment of any kind ~~which~~ THAT is used, or intended for use, in manufacturing, CREATING, compounding, processing, delivering, importing, or exporting a controlled substance, a controlled substance analogue, an androgenic anabolic steroid, ~~or~~ a counterfeit androgenic anabolic steroid, OR A SUBSTANCE REGULATED UNDER SECTION 7402A(1) TO (HH) in violation of this article or section 17766a; or a raw material, product, or equipment of any kind ~~which~~ THAT is intended for use in manufacturing, CREATING, compounding, processing, delivering, importing, or exporting an imitation controlled substance in violation of section 7341.

(c) Property ~~which~~ THAT is used, or intended for use, as a container for property described in subdivision (a) or (b).

(d) Except as provided in subparagraphs (i) to (iv), a conveyance, including an aircraft, vehicle, or vessel used or intended for use, to transport, or in any manner to facilitate the transportation, for the purpose of sale or receipt of property described in subdivision (a) or (b):

(i) A conveyance used by a person as a common carrier in the transaction of business as a common carrier is not subject to forfeiture

unless it appears that the owner or other person in charge of the conveyance is a consenting party or privy to a violation of this article.

(ii) A conveyance is not subject to forfeiture by reason of any act or omission established by the owner of that conveyance to have been committed or omitted without the owner's knowledge or consent.

(iii) A conveyance is not subject to forfeiture for a violation of section 7403(2)(c) or (d), section 7404, or section 7341(4).

(iv) A forfeiture of a conveyance encumbered by a bona fide security interest is subject to the interest of the secured party who neither had knowledge of nor consented to the act or omission.

(e) Books, records, and research products and materials, including formulas, microfilm, tapes, and data used, or intended for use, in violation of this article or section 17766a.

(f) Any thing of value that is furnished or intended to be furnished in exchange for a controlled substance, an imitation controlled substance, an androgenic anabolic steroid, ~~or~~ a counterfeit androgenic anabolic steroid, OR A SUBSTANCE REGULATED UNDER SECTION 7402A(1)(A) TO (HH) in violation of this article or section 17766a that is traceable to an exchange for a controlled substance, an imitation controlled substance, an androgenic anabolic steroid, ~~or~~ a counterfeit androgenic anabolic steroid, OR A SUBSTANCE REGULATED UNDER SECTION 7402A(1) TO (HH) in violation of this article or section 17766a, or that is used or intended to be used to facilitate any violation of this article or section 17766a including, but not limited to, money, negotiable instruments, or securities. To the extent of the interest of an owner, a thing of value is not subject to forfeiture under this subdivision by reason of any act or omission that is established by the

owner of the item to have been committed or omitted without the owner's knowledge or consent. Any money that is found in close proximity to any property that is subject to forfeiture under subdivision (a), (b), (c), (d), or (e) shall be presumed to be subject to forfeiture under this subdivision. This presumption may be rebutted by clear and convincing evidence.

(g) Any other drug paraphernalia not described in subdivision (b) or (c).

(2) As used in this section:

(a) "Androgenic anabolic steroid" means that term as defined in section 17766a.

(b) "Counterfeit androgenic anabolic steroid" means that term as defined in section 17766a.

(c) "Imitation controlled substance" means that term as defined in section 7341.

Sec. 7525. (1) A controlled substance listed in schedule 1 OR A SUBSTANCE THAT IS REGULATED UNDER SECTION 7402A(1)(A) TO (HH) that is possessed, transferred, sold, or offered for sale in violation of this article is contraband and shall be seized and summarily forfeited to this state. A controlled substance listed in schedule 1 ~~which~~ OR A SUBSTANCE THAT IS REGULATED UNDER SECTION 7402A(1)(A) TO (HH) THAT is seized or comes into the possession of this state, the owner of which is unknown, is contraband and shall be summarily forfeited to this state.

(2) Species of plants from which controlled substances in schedules 1 and 2 may be derived ~~which~~ THAT have been planted or cultivated in violation of this article, or of which the owner or cultivator is unknown, or ~~which~~ THAT are wild growths, may be seized and summarily forfeited to this state.

(3) The failure, upon demand by the administrator or its authorized agent, of the person in occupancy or in control of land or premises upon which the species of plants are growing or being stored to produce an appropriate license or proof that he or she is the holder ~~thereof~~ OF THOSE PLANTS, constitutes authority for the seizure and forfeiture of the plants.