

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:

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

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2

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

6 (a) Any compound of the formula

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8 $\text{CH}_3\text{CH}_2\text{-CH(OR}_1\text{)-C(R}_2\text{)}_2\text{-CHR}_3\text{-CHR}_4\text{-N(R}_5\text{)(R}_6\text{)}$

9

10 in which all of the following circumstances exist:

11 (i) R_1 is 1 of the following:

12 (A) -H.

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

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

15 (D) $-\text{CO-C}_6\text{H}_5$, or a substituent that would be $-\text{CO-C}_6\text{H}_5$ except that
16 1, 2, or 3 of the hydrogen atoms of $-\text{C}_6\text{H}_5$ have been replaced
17 by a corresponding number of 1 or more of the following:

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

19 (ii) -F.

20 (iii) -Cl.

(iv) $-\text{CF}_3$.

(ii) R_2 is $-\text{C}_6\text{H}_5$, or a substituent that would be $-\text{C}_6\text{H}_5$ except that 1, 2, or 3 of the hydrogen atoms of $-\text{C}_6\text{H}_5$ have been replaced by a corresponding number of 1 or more of the following: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) $-\text{F}$.

(C) $-\text{Cl}$.

(D) $-\text{CF}_3$.

(iii) R_3 is 1 of the following:

(A) $-\text{H}$.

(B) C_1 alkyl or C_2 alkyl.

(iv) R_4 is 1 of the following:

(A) $-\text{H}$.

(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) $-\text{H}$.

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

(c) $-\text{CH}_2-\text{CH}=\text{CH}_2$.

1 (ii) R₆ is 1 of the following:

2 (a) -H.

3 (b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

4 (c) -CH₂-CH=CH₂.

5 (d) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

6 (e) -CO-C₆H₅, or a substituent that would be -CO-C₆H₅

7 except that 1, 2, or 3 of the hydrogen atoms of

8 -C₆H₅ have been replaced by a corresponding

9 number of 1 or more of the following:

10 (i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

11 (ii) -F.

12 (iii) -Cl.

13 (iv) -CF₃.

14 (B) R₅ and R₆ are taken together with the attached nitrogen atom to

15 form a heterocyclic ring that is 1 of the following:

16 (i) 1-pyrrolidinyl.

17 (ii) 1-piperidinyl.

18 (iii) 1-morpholinyl.

19 (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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

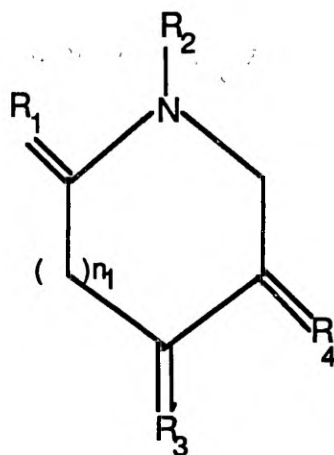
(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

1 (b) Any compound of the formula



7 in which all of the following circumstances exist:

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

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

12 (iii) R_2 is 1 of the following:

13 (A) -H.

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

15 (C) $-\text{CH}_2-\text{CH}=\text{CH}_2$.

1 (D) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

2 (E) -(CH₂)_{n2}-R₂₋₁ in which all of the following circumstances exist:

3 (i) n₂ is 1, 2, 3, or 4.

4 (ii) R₂₋₁ is -C₆H₅, or a substituent that would be -C₆H₅ except

5 that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been

6 replaced by a corresponding number of 1 or more of the

7 following:

8 (a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

9 (b) -F.

10 (c) -Cl.

11 (d) -CF₃.

12 (iv) Either of the following circumstances exists:

13 (A) R₃ is R₃₋₁:R₃₋₂ and R₄ is R₄₋₁:R₄₋₂ in which one of R₃₋₁ or

14 R₃₋₂ is taken together with one of R₄₋₁ or R₄₋₂ to form a

15 double bond between the carbon atoms to which they are

16 attached, the other of R₃₋₁ or R₃₋₂ is 2-thienyl or -C₆H₅, and

17 the other of R₄₋₁ or R₄₋₂ is -H.

18 (B) R₃ is R₃₋₃:R₃₋₄, R₄ is alpha-R₄₋₃: beta-R₄₋₄, and all of the

19 following circumstances exist:

(i) R₃₋₃ is -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(b) -F.

(c) -Cl.

(d) -CF₃.

(ii) R₃₋₄ is 1 of the following:

(a) -OH.

(b) -O-R₃₋₅ in which R₃₋₅ is 1 of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(iii) -CO-(CH₂)_{n₃}-C₆H₅ in which n₃ is 1, 2, 3, or 4,

or a substituent that would be -CO-(CH₂)_{n₃}-C₆H₅

in which n₃ is 1, 2, 3, or 4 except that 1, 2, or 3

of the hydrogen atoms of -C₆H₅ have been

replaced by a corresponding number of 1 or more

of the following:

(A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(B) -F.

(C) -Cl.

(D) -CF₃.

(iii) One of R₄-3 or R₄-4 is -H and the other of R₄-3 or R₄-4 is 1 of the following:

(a) C₁ alkyl, C₂ alkyl, C₃ alkyl, C₄ alkyl, C₅ alkyl, or C₆ alkyl.

(b) -CH₂-CH=CH₂.

(c) -CH₂-CH=CH-CH₃.

(c) Any compound of the formula



in which all of the following circumstances exist:

(i) R₁ is any of the following:

(A) -CN.

(B) -O-CO-R₁₋₁, in which R₁₋₁ is C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) -CO-R₁₋₂ in which R₁₋₂ is 1 of the following:

(i) -H.

1 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

2 (iii) -O-R₁₋₃ in which R₁₋₃ is 1 of the following :

3 (a) -H.

4 (b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

5 (iv) -N(R₁₋₄)(R₁₋₅) in which either of the following circumstances

6 exists:

7 (a) R₁₋₄ and R₁₋₅ are the same or different but each is 1 of the
8 following:

9 (i) -H.

10 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

11 (iii) -CH₂-CH=CH₂.

12 (b) R₁₋₄ and R₁₋₅ are taken together with the attached nitrogen
13 atom to form a heterocyclic ring that is 1 of the following:

14 (i) 1-pyrrolidinyl.

15 (ii) 1-piperidinyl.

16 (iii) 1-morpholinyl.

17 (iv) 1-piperazinyl.

18 (v) A substituent that would be 1-piperazinyl except that
19 the hydrogen atom at the fourth position of
20 1-piperazinyl is replaced by 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(D) 2-pyrimidinyl or 4-pyrimidinyl.

(E) C₆H₅, or a substituent that would be -C₆H₅ except

that 1, 2, or 3 of the hydrogen atoms of -C₆H₅

have been replaced by a corresponding number of

1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(ii) R₂ is -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(B) -F.

(C) -Cl.

(D) -CF₃.

- 1 (iii) R₃ is -CH₂-C₆H₅, or a substituent that would be -CH₂-C₆H₅ except
2 that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by
3 a corresponding number of 1 or more of the following:
- 4 (A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.
 - 5 (B) -F.
 - 6 (C) -Cl.
 - 7 (D) -CF₃.
- 8 (iv) R₄ is 1 of the following:
- 9 (A) -H.
 - 10 (B) C₁ alkyl or C₂ alkyl.
- 11 (v) R₅ is 1 of the following:
- 12 (A) -H.
 - 13 (B) C₁ alkyl or C₂ alkyl.
- 14 (vi) Either of the following circumstances exists:
- 15 (A) R₆ and R₇ are the same or different but each is 1 of the
16 following:
 - 17 (i) -H.
 - 18 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.
 - 19 (iii) -CH₂-CH=CH₂.

(B) R₆ and R₇ 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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

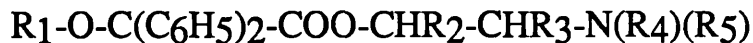
(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

1 (d) Any compound of the formula



5 in which all of the following circumstances exist:

6 (i) R_1 is 1 of the following:

7 (A) -H.

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

9 (ii) R_2 is 1 of the following:

10 (A) -H.

11 (B) C_1 alkyl or C_2 alkyl.

12 (iii) R_3 is 1 of the following:

13 (A) -H.

14 (B) C_1 alkyl or C_2 alkyl.

15 (iv) Either of the following circumstances exists:

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

18 (i) -H.

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

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

(B) R4 and R5 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) C1 alkyl, C2 alkyl, or C3 alkyl.

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

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, 3 of the hydrogen atoms of -C₆H₅ have been replaced by corresponding number of 1 or more of the following:

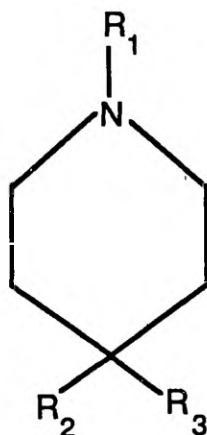
(i) C1 alkyl, C2 alkyl, or C3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(F) -(CH₂)_{n₁}-O-(CH₂)_{n₂}-R₁₋₁ in which all of the following circumstances exist:

(i) n₁ is 1, 2, 3, or 4.

(ii) n₂ is 1, 2, 3, or 4.

(iii) R₁₋₁ is 1 of the following:

(a) 2-tetrahydrofuranyl or 3-tetrahydrofuranyl.

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

(c) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

1 (v) -O-R₁₋₂ in which R₁₋₂ is 1 of the following:

2 (A) -H.

3 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

4 (C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

5 (G) -(CH₂)_{n₃}-N(R₁₋₃)(R₁₋₄) in which all of the following
6 circumstances exist:

7 (i) n₃ is 1, 2, 3, or 4.

8 (ii) Either of the following circumstances exists:

9 (a) All of the following circumstances exist:

10 (i) R₁₋₃ is 1 of the following:

11 (A) -H.

12 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

13 (C) -CH₂-CH=CH₂.

14 (D) -C₆H₅.

15 (ii) R₁₋₄ is 1 of the following:

16 (A) -H.

17 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

18 (C) -CH₂-CH=CH₂.

(b) R₁₋₃ and R₁₋₄ 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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(H) -(CH₂)_{n4}-C(R₁₋₅)(R₁₋₆)(R₁₋₇) in which all of the following circumstances exist:

(i) n₄ is 1, 2, 3, or 4.

(ii) R₁₋₅ and R₁₋₆ are the same or different but each is 1 of the following:

(a) -H.

(b) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(iii) R₁₋₇ is 1 of the following:

(a) -CN.

(b) -O-R₁₋₈ in which R₁₋₈ is 1 of the following:

(i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(c) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(v) -NH₂.

(ii) R₂ is -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(B) -F.

(C) -Cl.

(D) -CF₃.

(E) -O-R₂₋₁ in which R₁₂ is 1 of the following:

(i) -H.

1 (ii) C₁ alkyl or C₂ alkyl.

2 (iii) C₁ acyl, C₂ acyl, or C₃ acyl.

3 (iv) -N(R₂₋₂)(R₂₋₃) in which either of the following
4 circumstances exists:

5 (a) R₂₋₂ and R₂₋₃ are the same or different, but each is 1 of
6 the following:

7 (i) -H.

8 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

9 (iii) -CH₂-CH=CH₂.

10 (b) R₂₋₂ and R₂₋₃ are taken together with the attached
11 nitrogen atom to form a heterocyclic ring that is 1 of
12 the following:

13 (i) 1-pyrrolidinyl.

14 (ii) 1-piperidinyl.

15 (iii) 1-morpholinyl.

16 (iv) 1-piperazinyl.

17 (v) A substituent that would be 1-piperazinyl except
18 that the hydrogen atom at the fourth position of
19 1-piperazinyl is replaced by 1 of the following:

20 (A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) -C₆H₅, or a substituent that would be -C₆H₅

except that 1, 2, or 3 of the hydrogen atoms of

-C₆H₅ have been replaced by a corresponding

number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(iii) R₃ is 1 of the following:

(A) -CN.

(B) -CO-R₃₋₁ in which R₃₋₁ is 1 of the following:

(i) -OH.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) C₁ alkoxy, C₂ alkoxy, C₃ alkoxy, or C₄ alkoxy.

(iv) -N(R₃₋₂)(R₃₋₃) in which either of the following

circumstances exists:

(a) R₃₋₂ and R₃₋₃ are the same or different, but each is 1

of the following:

(i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) -CH₂-CH=CH₂.

(b) R₃₋₂ and R₃₋₃ 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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

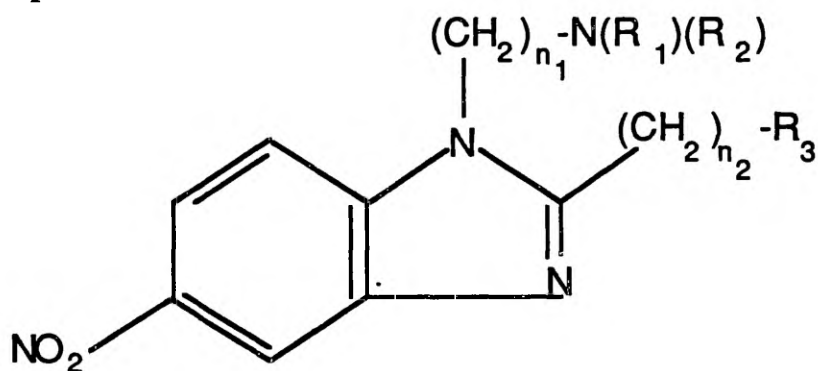
(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(f) Any compound of the formula



in which all of the following circumstances exist:

(i) n₁ is 1, 2, 3, or 4.

(ii) n₂ is 1, 2, 3, or 4.

(iii) Either of the following circumstances exists:

(A) R₁ and R₂ are the same or different, but each is 1 of the

following:

1 (i) -H.

2 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

3 (iii) -CH₂-CH=CH₂.

4 (B) R₁ and R₂ are taken together with the attached nitrogen atom to
5 form a heterocyclic ring that is 1 of the following:

6 (i) 1-pyrrolidinyl.

7 (ii) 1-piperidinyl.

8 (iii) 1-morpholinyl.

9 (iv) 1-piperazinyl.

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

13 (a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

15 (c) 2-pyrimidinyl or 4-pyrimidinyl.

16 (d) -C₆H₅, or a substituent that would be -C₆H₅ except that 1,
17 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced
18 by a corresponding number of 1 or more of the following:

19 (i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

20 (ii) -F.

(iii) -Cl.

(iv) -CF₃.

(iv) R₃ is -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(B) -F.

(C) -Cl.

(D) -CF₃.

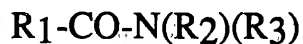
(E) -O-R₃₋₁ in which R₃₋₁ is 1 of the following:

(i) -H.

(ii) C₁ alkyl or C₂ alkyl.

(iii) C₁ acyl, C₂ acyl, or C₃ acyl.

(g) Any compound of the formula



in which all of the following circumstances exist:

(i) R₁ is C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) R₂ is 1 of the following:

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

(B) 2-pyrimidinyl or 4-pyrimidinyl.

(C) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or

3 of the hydrogen atoms of -C₆H₅ have been replaced by a

corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(iii) R₃ is -C(H)(R₃₋₁)-C(H)(R₃₋₂)-N(R₃₋₃)(R₃₋₄) in which all of the following circumstances exist:

(A) R₃₋₁ is 1 of the following:

(i) -H.

(ii) C₁ alkyl or C₂ alkyl.

(B) R₃₋₂ is 1 of the following:

(i) -H.

(ii) C₁ alkyl or C₂ alkyl.

(C) Either of the following circumstances exists:

1 (i) R3-3 and R3-4 are the same or different, but each is 1 of
2 the following:

3 (a) -H.

4 (b) C1 alkyl, C2 alkyl, or C3 alkyl.

5 (c) -CH₂-CH=CH₂.

6 (d) -(CH₂)_{n1}-C₆H₅ in which n₁ is 1, 2, or 3, or a
7 substituent that would be -(CH₂)_{n1}-C₆H₅ in which n₁
8 is 1, 2, or 3 except that 1, 2, or 3 of the hydrogen
9 atoms of -C₆H₅ have been replaced by a
10 corresponding number of 1 or more of the following:

11 (i) C1 alkyl, C2 alkyl, or C3 alkyl.

12 (ii) -F.

13 (iii) -Cl.

14 (iv) -CF₃.

15 (ii) R3-3 and R3-4 are taken together with the attached
16 nitrogen atom to form a heterocyclic ring that is 1 of the
17 following:

18 (a) 1-pyrrolidinyl.

19 (b) 1-piperidinyl.

20 (c) 1-morpholinyl.

1 (d) 1-piperazinyl.

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

5 (i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

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

8 (iv) -C₆H₅, or a substituent that would be -C₆H₅ except
9 that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have
10 been replaced by a corresponding number of 1 or
11 more of the following:

12 (a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

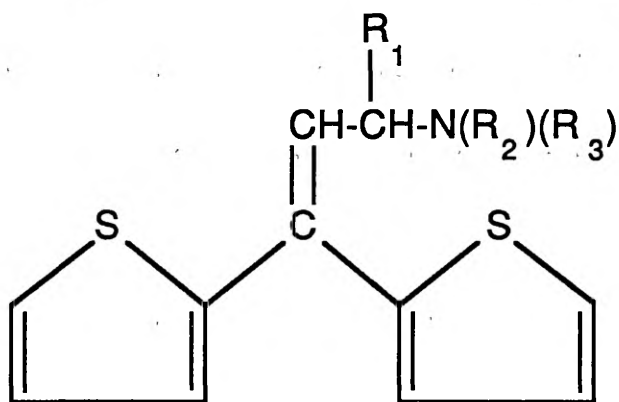
13 (b) -F.

14 (c) -Cl.

15 (d) -CF₃.

1 (h) Any compound of the formula

2



3

4

5 in which all of the following circumstances exist:

6 (i) R_1 is 1 of the following:

7 (A) -H.

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

9 (C) $-\text{CH}_2-\text{CH}=\text{CH}_2$.

10 (ii) Either of the following circumstances exists:

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

13 (i) -H.

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

15 (iii) $-\text{CH}_2-\text{CH}=\text{CH}_2$.

(B) R₂ and R₃ 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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

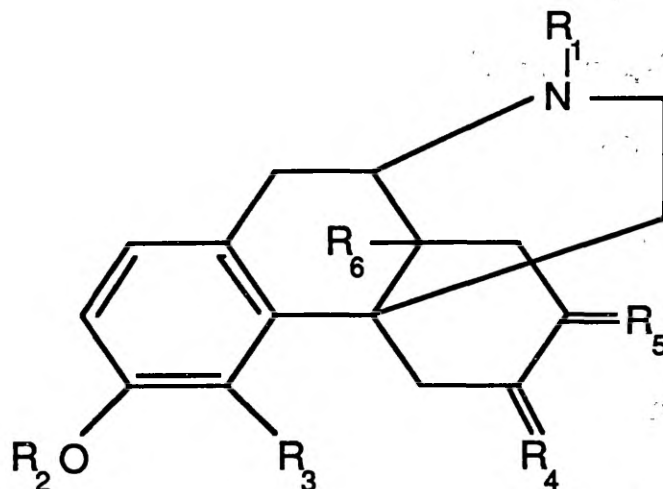
(iii) -Cl.

(iv) -CF₃.

1

2 (i) Any compound of the formula

3



4

5 in which all of the following circumstances exist:

6 (i) R_1 is 1 of the following:

7 (A) -H.

8 (B) C1 alkyl, C2 alkyl, or C3 alkyl.

9 (C) $-\text{CH}_2-\text{CH}=\text{CH}_2$.

10 (D) C1 acyl, C2 acyl, C3 acyl, or C4 acyl.

11 (E) $-(\text{CH}_2)_{n_1}-\text{C}_6\text{H}_5$ in which n_1 is 1, 2, 3, or 4, or a substituent that12 would be $-(\text{CH}_2)_{n_1}-\text{C}_6\text{H}_5$ in which n_1 is 1, 2, 3, or 4 except that13 1, 2, or 3 of the hydrogen atoms of $-\text{C}_6\text{H}_5$ have been replaced by

14 a corresponding number of 1 or more of the following:

15 (i) C1 alkyl, C2 alkyl, or C3 alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(F) $-(\text{CH}_2)_{n_2}-\text{CO}-\text{C}_6\text{H}_5$ in which n_2 is 1, 2, 3, or 4, or a substituent that would be $-(\text{CH}_2)_{n_2}-\text{CO}-\text{C}_6\text{H}_5$ in which n_2 is 1, 2, 3, or 4 except that 1, 2, or 3 of the hydrogen atoms of $-\text{C}_6\text{H}_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(ii) R₂ is 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(iii) R₃ is 1 of the following:

(A) -H.

(B) -OH.

(C) C₁ alkoxy, C₂ alkoxy, or C₃ alkoxy.

(iv) Either of the following circumstances exists:

(A) R₄ is R₄₋₁:R₄₋₂ and R₅ is R₅₋₁:R₅₋₂ in which all of the following circumstances exist:

(i) One of R₄₋₁ or R₄₋₂ is taken together with 1 of R₅₋₁ or R₅₋₂ to form a double bond between the carbon atoms to which they are attached.

(ii) The other of R₄₋₁ or R₄₋₂ is C₁ acyloxy, C₂ acyloxy, C₃ acyloxy, or C₄ acyloxy.

(iii) The other of R₅₋₁ or R₅₋₂ is -H.

(B) Both of the following circumstances exist:

(i) R₄ is 1 of the following:

(a) -H:-H.

(b) -H: -O-R₄₋₃ in which R₄₋₃ is 1 of the following:

(i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(ii) R₅ is -H:-H.

(v) R₆ is 1 of the following:

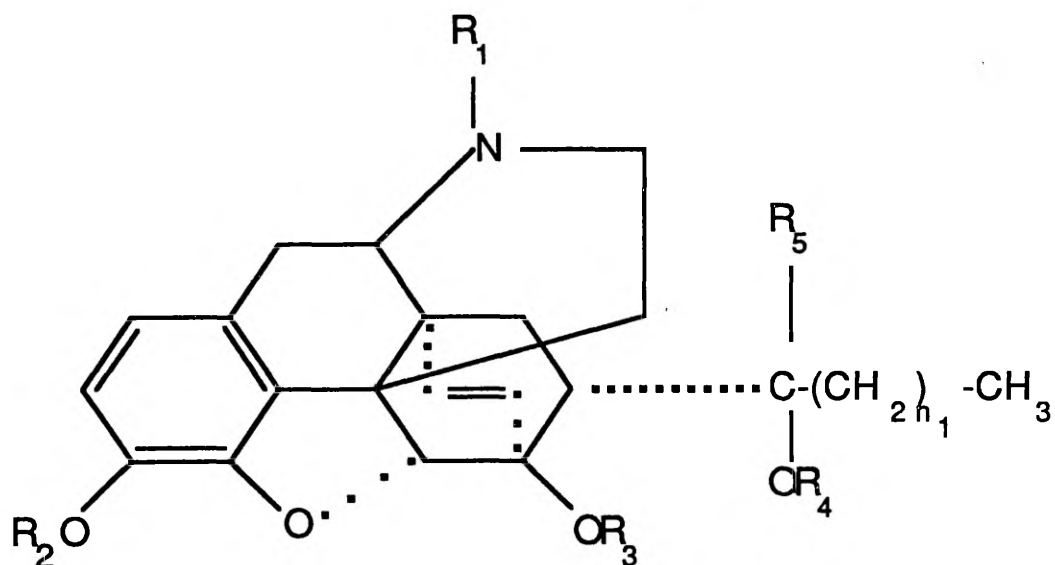
(A) -H.

(B) -OH.

1

2 (j) Any compound of the formula

3



4

5 in which all of the following circumstances exist:

6

7 (i) R₁ is 1 of the following:

8 (A) -H.

9 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.10 (C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.11 (D) -CH₂-CH=CH₂.

12 (E) cyclopropylmethyl.

13 (ii) R₂ is 1 of the following:

14 (A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(iii) R₃ is 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(iv) R₄ is 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(v) R₅ is 1 of the following:

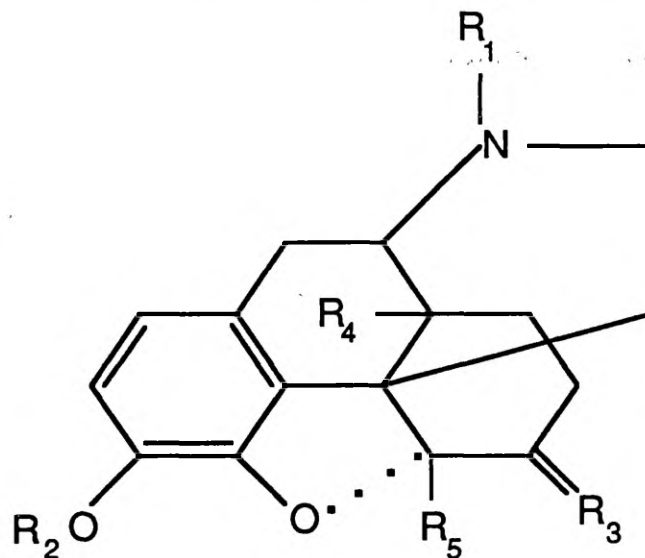
(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(vi) n₁ is 0, 1, 2, 3, or 4.

1 (k) Any compound of the formula

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4

5 in which all of the following circumstances exist:

6

7 (i) R₁ is 1 of the following:

8

(A) -H.

9

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

10

(C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

11

(D) -CH₂-CH=CH₂.

12

(E) cyclopropylmethyl.

13

(ii) R₂ is 1 of the following:

14

(A) -H.

1 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

2 (C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

3 (iii) R₃ is 1 of the following:

4 (A) =O.

5 (B) R₃₋₁:R₃₋₂ in which all of the following circumstances exist:

6 (i) R₃₋₁ is 1 of the following:

7 (a) -H.

8 (b) C₁ alkyl or C₂ alkyl.

9 (ii) R₃₋₂ is 1 of the following:

10 (a) -H.

11 (b) -O-R₃₋₃, in which R₃₋₃ is 1 of the following:

12 (i) -H.

13 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

14 (iii) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

15 (iv) R₄ is 1 of the following:

16 (A) -H.

17 (B) -OH.

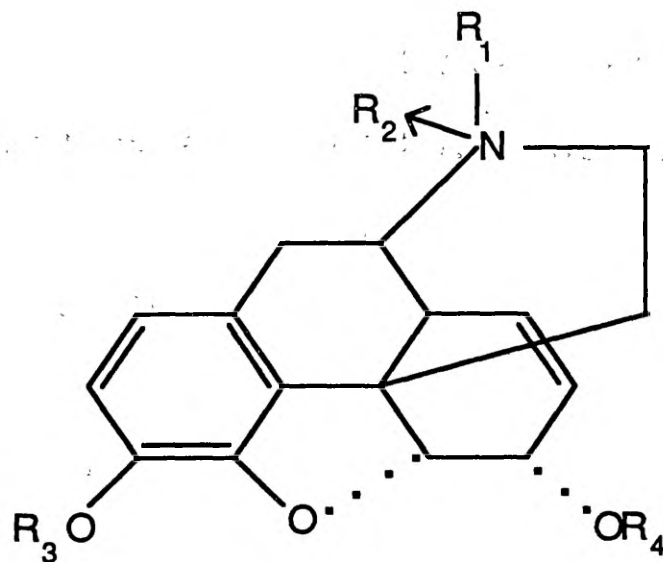
18 (v) R₅ is 1 of the following:

19 (A) -H.

20 (B) -CH₃.

1 (1) Any compound of the formula

2



3

4

5 in which all of the following circumstances exist:

6 (i) R_1 is 1 of the following:

7 (A) -H.

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

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

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

11 (E) cyclopropylmethyl.

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

13 (A) C_1 alkyl.

14 (B) N-oxide.

(iii) R₃ is 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) C₁ acyl, C₂ acyl, C₃ acyl, C₄ acyl, C₅ acyl, C₆ acyl, C₇ acyl, C₈ acyl, C₉ acyl, C₁₀ acyl, C₁₁ acyl, C₁₂ acyl, C₁₃ acyl, C₁₄ acyl, C₁₅ acyl, C₁₆ acyl, C₁₇ acyl, or C₁₈ acyl.

(D) nicotinyl.

(E) -(CH₂)_{n₁}-C₆H₅ in which n₁ is 1, 2, 3, or 4, or a substituent that would be -(CH₂)_{n₁}-C₆H₅ in which n₁ is 1, 2, 3, or 4 except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(F) -(CH₂)_{n₂}-N(R₃₋₁)(R₃₋₂) in which all of the following circumstances exist:

(i) n₂ is 1, 2, 3, or 4.

(ii) Either of the following circumstances exists:

1 (a) R₃₋₁ and R₃₋₂ are the same or different but each is 1 of
2 the following:

- 3 (i) -H.
4 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.
5 (iii) -CH₂-CH=CH₂.

6 (b) R₃₋₁ and R₃₋₂ are taken together with the attached
7 nitrogen atom to form a heterocyclic ring that is 1 of the
8 following:

- 9 (i) 1-pyrrolidinyl.
10 (ii) 1-piperidinyl.
11 (iii) 1-morpholinyl.
12 (iv) 1-piperazinyl.
13 (v) A substituent that would be 1-piperazinyl except that the
14 hydrogen atom of the fourth position of 1-piperazinyl is
15 replaced by 1 of the following:
16 (A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.
17 (B) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.
18 (C) 2-pyrimidinyl or 4-pyrimidinyl.
19 (D) -C₆H₅, or a substituent that would be -C₆H₅ except
20 that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have

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

3 (i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

4 (ii) -F.

5 (iii) -Cl.

6 (iv) -CF₃.

7 (iv) R₄ is 1 of the following:

8 (A) -H.

9 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

10 (C) C₁ acyl, C₂ acyl, C₃ acyl, C₄ acyl, C₅ acyl, C₆ acyl, C₇ acyl,
11 C₈ acyl, C₉ acyl, C₁₀ acyl, C₁₁ acyl, C₁₂ acyl, C₁₃ acyl,
12 C₁₄ acyl, C₁₅ acyl, C₁₆ acyl, C₁₇ acyl, or C₁₈ acyl.

13 (D) nicotinyl.

14

15

16

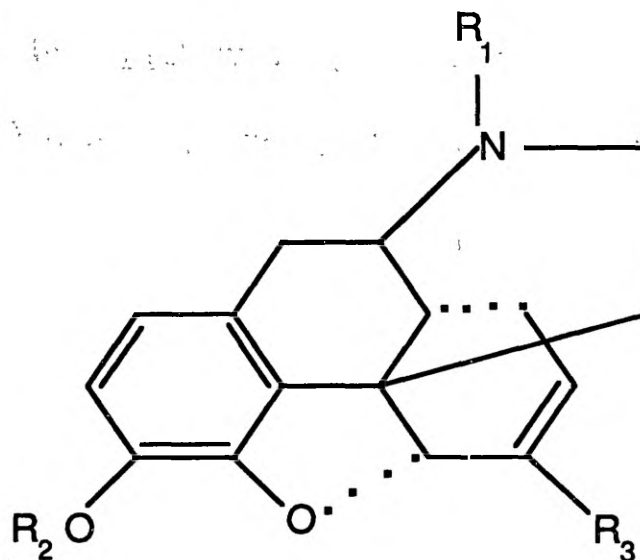
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20

1 (m) Any compound of the formula



2
3
4 in which all of the following circumstances exist:

5 (i) R_1 is 1 of the following:

6 (A) -H.

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

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

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

10 (E) cyclopropylmethyl.

11 (ii) R_2 is 1 of the following:

12 (A) -H.

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

(C) C₁ acyl, C₂ acyl, C₃ acyl, C₄ acyl, C₅ acyl, C₆ acyl, C₇ acyl, C₈ acyl, C₉ acyl, C₁₀ acyl, C₁₁ acyl, C₁₂ acyl, C₁₃ acyl, C₁₄ acyl, C₁₅ acyl, C₁₆ acyl, C₁₇ acyl, or C₁₈ acyl.

(D) nicotinyl.

(E) $-(\text{CH}_2)_{n_1}-\text{C}_6\text{H}_5$ in which n_1 is 1, 2, 3, or 4, or a substituent that would be $-(\text{CH}_2)_{n_1}-\text{C}_6\text{H}_5$ in which n_1 is 1, 2, 3, or 4 except that 1, 2, or 3 of the hydrogen atoms of $-\text{C}_6\text{H}_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(F) $-(\text{CH}_2)_{n_2}-\text{N}(\text{R}_{2-1})(\text{R}_{2-2})$ 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) R₂₋₁ and R₂₋₂ are the same or different but each is 1 of the following:

(i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) $-\text{CH}_2-\text{CH}=\text{CH}_2$.

(b) R₂-1 and R₂-2 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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) $-\text{C}_6\text{H}_5$, or a substituent that would be $-\text{C}_6\text{H}_5$ except that 1, 2, or 3 of the hydrogen atoms of $-\text{C}_6\text{H}_5$ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) $-\text{F}$.

(iii) -Cl.

(iv) -CF₃.

(iii) R₃ is 1 of the following:

(A) -H.

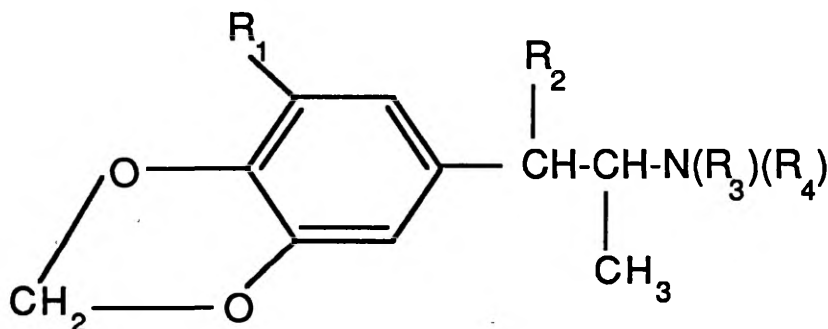
(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(n) Any compound of the formula



in which all of the following circumstances exist:

(i) R₁ is 1 of the following:

(A) -H.

(B) -O-R₁₋₁ in which R₁₋₁ is 1 of the following:

(i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) C₁ acyl, C₂ acyl, C₃ acyl, C₄ acyl, C₅ acyl, C₆ acyl, C₇ acyl,

C₈ acyl, C₉ acyl, C₁₀ acyl, C₁₁ acyl, C₁₂ acyl, C₁₃ acyl,

C₁₄ acyl, C₁₅ acyl, C₁₆ acyl, C₁₇ acyl, or C₁₈ acyl.

(ii) R₂ is 1 of the following:

(A) -H.

(B) C₁ alkyl.

(iii) Either of the following circumstances exists:

(A) Both of the following circumstances exist:

(i) R₃ is 1 of the following:

(a) -H.

(b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(c) -CH₂-CH=CH₂.

(ii) R₄ is 1 of the following:

(a) -H.

(b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(c) -CH₂-CH=CH₂.

(d) -OH.

(B) R₃ and R₄ 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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

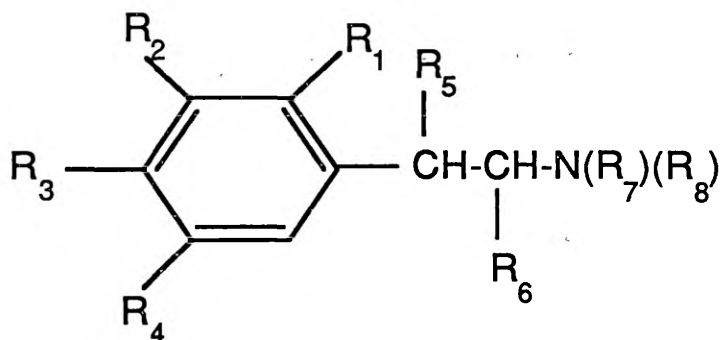
(e) -Cl.

(f) -CF₃.

1

2 (o) Any compound of the formula

3



4

5 in which all of the following circumstances exist:

6 (i) Both of the following circumstances exist:

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

9 (i) -H.

10 (ii) -F.

11 (iii) -Cl.

12 (iv) -Br.

13 (v) -CF₃.14 (vi) C₁ alkyl, C₂ alkyl, or C₃ alkyl.15 (vii) -CH₂-CH=CH₂.16 (viii) -O-R₁₋₁ in which R₁₋₁ is 1 of the following:

1 (a) -H.

2 (b) C₁ alkyl or C₂ alkyl.

3 (c) C₁ acyl, C₂ acyl, or C₃ acyl.

4 (B) At least 1 of R₁, R₂, R₃, or R₄ is -H.

5 (ii) R₅ and R₆ are the same or different but each is 1 of the following:

6 (A) -H.

7 (B) C₁ alkyl.

8 (iii) Either of the following circumstances exists:

9 (A) Both of the following circumstances exist:

10 (i) R₇ is 1 of the following:

11 (a) -H.

12 (b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

13 (c) -CH₂-CH=CH₂.

14 (d) -OH.

15 (ii) R₈ is 1 of the following:

16 (a) -H.

17 (b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

18 (c) -CH₂-CH=CH₂.

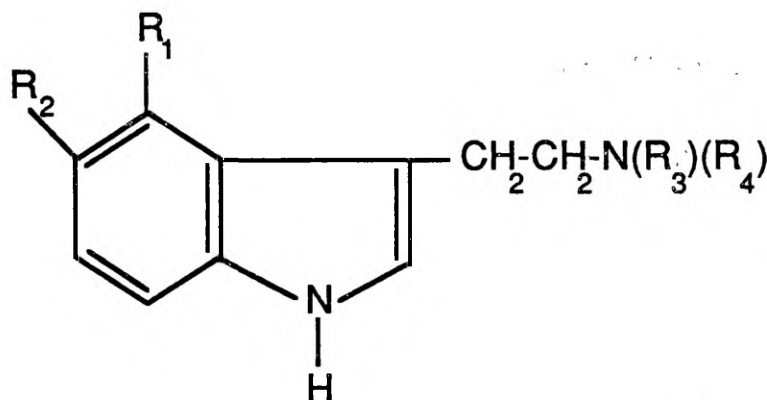
19 (B) R₇ and R₈ are taken together with the attached nitrogen atom to

20 form a heterocyclic ring that is 1 of the following:

- 1 (i) 1-pyrrolidinyl.
- 2 (ii) 1-piperidinyl.
- 3 (iii) 1-morpholinyl.
- 4 (iv) 1-piperazinyl.
- 5 (v) A substituent that would be 1-piperazinyl except that the
6 hydrogen atom at the fourth position of 1-piperazinyl is
7 replaced by 1 of the following:
 - 8 (a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.
 - 9 (b) 2-pyridinyl, 3-pyridinyl, or 4-pyridinyl.
 - 10 (c) 2-pyrimidinyl or 4-pyrimidinyl.
 - 11 (d) -C₆H₅, or a substituent that would be -C₆H₅ except
12 that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have
13 been replaced by a corresponding number of 1 or
14 more of the following:
 - 15 (i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.
 - 16 (ii) -F.
 - 17 (iii) -Cl.
 - 18 (iv) -CF₃.

1 (p) Any compound of the formula

2



3

4 in which all of the following circumstances exist:

5 (i) R_1 is 1 of the following:

6 (A) -H.

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

8 (i) -H.

9 (ii) -P(O)(OH)₂.

10 (iii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

11 (iv) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

12 (ii) Both of the following circumstances exist:

13 (A) R_2 is 1 of the following:

14 (i) -H.

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

16 (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:

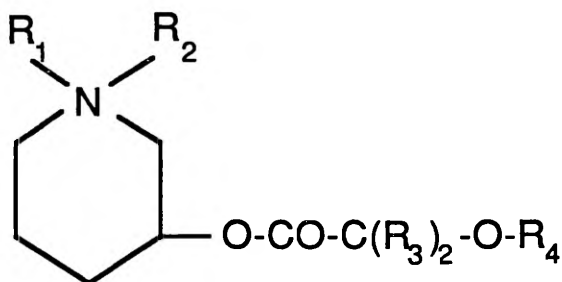
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(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) $-H$.

1 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

2 (C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

3 (D) -CH₂-CH=CH₂.

4 (E) -(CH₂)_{n₁}-R₁₋₁ in which all of the following circumstances exist:

5 (i) n₁ is 1, 2, 3, or 4.

6 (ii) R₁₋₁ is -C₆H₅, or a substituent that would be -C₆H₅ except
7 that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been
8 replaced by a corresponding number of 1 or more of the
9 following:

10 (a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

11 (b) -F.

12 (c) -Cl.

13 (d) -CF₃.

14 (ii) R₂ is 1 of the following:

15 (A) -H.

16 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

17 (C) -CH₂-CH=CH₂.

18 (iii) R₃ is -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3
19 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding
20 number of 1 or more of the following:

(A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(B) -F.

(C) -Cl.

(D) -CF₃.

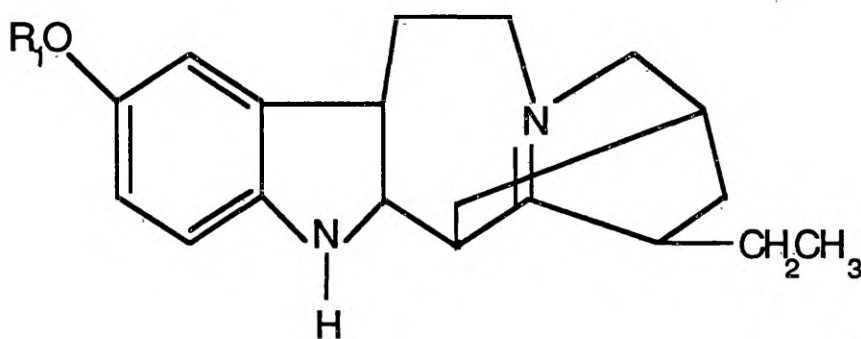
(iv) R₄ is 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(r) Any compound of the formula



in which R₁ is 1 of the following:

(A) -H.

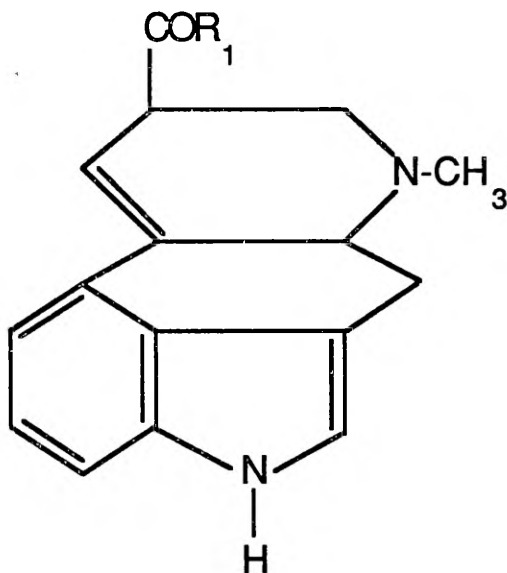
(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

1

2 (s) Any compound of the formula

3



4

5

6

7 in which R_1 is 1 of the following:

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

9 (i) $-H$.

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

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

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

13 exists:

(i) R₁₋₂ and R₁₋₃ are the same or different but each is 1 of the following:

(a) -H.

(b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(c) -CH₂-CH=CH₂.

(ii) R₁₋₂ and R₁₋₃ 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) C₁ alkyl, C₂ alkyl, or C₃ 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:

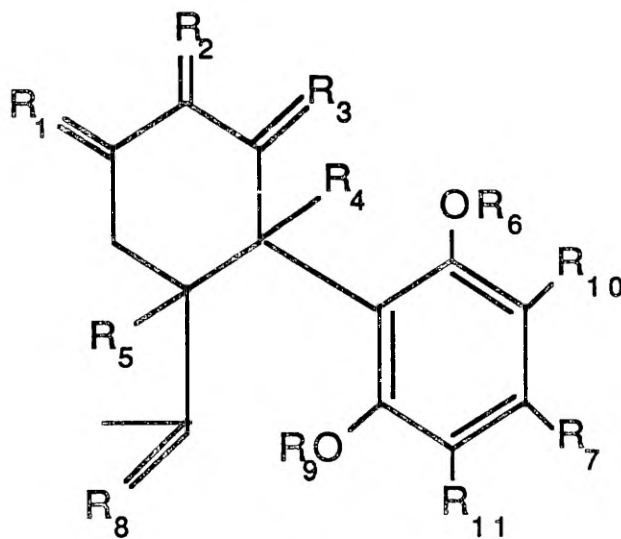
(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(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:

1 (i) R₁ is R₁₋₁:R₁₋₂ and R₂ is R₂₋₁:R₂₋₂ in which all of the
2 following circumstances exist:

3 (a) One of R₁₋₁ or R₁₋₂ is taken together with 1 of R₂₋₁ or
4 R₂₋₂ to form a double bond between the carbon atoms
5 to which they are attached.

6 (b) The other of R₁₋₁ or R₁₋₂ is -H.

7 (c) The other of R₂₋₁ or R₂₋₂ is C₁ alkyl, C₂ alkyl, or
8 C₃ alkyl, or -CH₂-O-R₂₋₃ in which R₂₋₃ is 1 of the
9 following:

10 (i) -H.

11 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

12 (iii) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

13 (ii) R₃ is -H:-H.

14 (iii) R₄ is alpha-H.

15 (iv) R₅ is beta-H.

16 (B) All of the following circumstances exist:

17 (i) R₂ is R₂₋₄:R₂₋₅ and R₃ is R₃₋₁:R₃₋₂ in which all of the
18 following circumstances exist:

(a) One of R₂-4 or R₂-5 is taken together with 1 of R₃-1 or R₃-2 to form a double bond between the carbon atoms to which they are attached.

(b) The other of R₂-4 or R₂-5 is 1 of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -CH₂-O-R₂-6 in which R₂-6 is 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(c) The other of R₃-1 or R₃-2 is -H.

(ii) R₁ is -H:-H.

(iii) R₄ is alpha-H.

(iv) R₅ is beta-H.

(C) All of the following circumstances exist:

(i) R₄ and R₅ are taken together form a double bond between the carbon atoms to which they are attached.

(ii) R₁ and R₃ are each -H:-H.

(iii) R₂ is -H:R₂-7 in which R₂-7 is 1 of the following:

(a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(b) -CH₂-O-R₂-8 in which R₂-8 is 1 of the following:

(i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(D) All of the following circumstances exist:

(i) R₁ is -H:-H.

(ii) R₂ is =O.

(iii) R₃ is -H:-H.

(iv) R₄ is -H.

(v) R₅ is -H.

(ii) R₆ is 1 of the following:

(A) -H.

(B) C₁ alkyl or C₂ alkyl.

(C) C₁ acyl, C₂ acyl, or C₃ acyl.

(iii) R₇ is 1 of the following:

(A) C₁ alkyl, C₂ alkyl, C₃ alkyl, C₄ alkyl, C₅ alkyl, C₆ alkyl,
C₇ alkyl, C₈ alkyl, C₉ alkyl, or C₁₀ alkyl.

(B) C₂ alkenyl, C₃ alkenyl, C₄ alkenyl, C₅ alkenyl, C₆ alkenyl,
C₇ alkenyl, C₈ alkenyl, C₉ alkenyl, or C₁₀ alkenyl.

(iv) Either of the following circumstances exists:

1 (A) R₈ is R₈₋₁:R₈₋₂ in which both of the following circumstances
2 exist:

3 (i) One of R₈₋₁ or R₈₋₂ and R₉ are taken together to form a
4 heterocyclic ring containing oxygen.

5 (ii) The other of R₈₋₁ or R₈₋₂ is C₁ alkyl.

6 (B) Both of the following circumstances exist:

7 (i) R₉ is 1 of the following:

8 (a) -H.

9 (b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

10 (c) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

11 (ii) R₈ is =CH₂.

12 (v) R₁₀ is 1 of the following:

13 (A) -H.

14 (B) -CO-O-R₁₀₋₁ in which R₁₀₋₁ is 1 of the following:

15 (i) -H.

16 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

17 (vi) R₁₁ is 1 of the following:

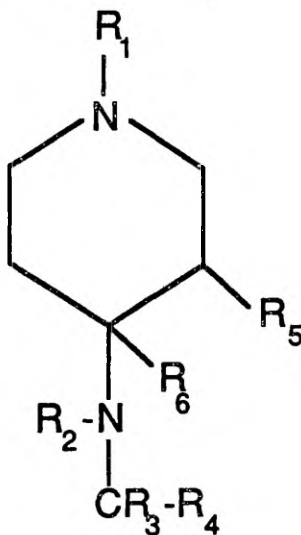
18 (A) -H.

19 (B) -CO-O-R₁₁₋₁ in which R₁₁₋₁ is 1 of the following:

20 (i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(u) Any compound of the formula



in which all of the following circumstances exist:

(i) R₁ is 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) -CH₂-CH=CH₂.

(D) C₁ acyl, C₂ acyl, C₃ acyl, or C₄ acyl.

(E) -(CH₂)_{n₁}-R₁₋₁ in which both of the following circumstances

exist:

(i) n₁ is 1, 2, 3, or 4.

(ii) R₁₋₁ is 1 of the following:

(a) 2-thiophene.

(b) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(F) -C(H)(R₁₋₂)-C(H)(R₁₋₃)-R₁₋₄ in which all of the following circumstances exist:

(i) R₁₋₂ is 1 of the following:

(a) -H.

(b) C₁ alkyl or C₂ alkyl.

(ii) R₁₋₃ is 1 of the following:

(a) -H.

(b) C₁ alkyl or C₂ alkyl.

(c) -OH.

(iii) R₁₋₄ is 1 of the following:

1 (a) 2-thiophene.

2 (b) -C₆H₅, or a substituent that would be -C₆H₅ except
3 that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have
4 been replaced by a corresponding number of 1 or
5 more of the following:

6 (i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

7 (ii) -F.

8 (iii) -Cl.

9 (iv) -CF₃.

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

11 (ii) R₂ is -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or
12 3 of the hydrogen atoms of -C₆H₅ have been replaced by a
13 corresponding number of 1 or more of the following:

14 (A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

15 (B) -F.

16 (C) -Cl.

17 (D) -CF₃.

18 (iii) R₃ is 1 of the following:

19 (A) =O.

20 (B) =S.

(iv) R₄ is C₁ alkyl, C₂ alkyl, C₃ alkyl, C₄ alkyl, or C₅ alkyl or a compound that would be C₁ alkyl, C₂ alkyl, C₃ alkyl, C₄ alkyl, or C₅ alkyl except that 1 hydrogen atom in the alkyl group has been replaced by -OH.

(v) R₅ is 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(vi) R₆ is 1 of the following:

(A) -H.

(B) $-(\text{CH}_2)_{n_2}-\text{O}-\text{R}_{6-1}$ in which both of the following circumstances

exist:

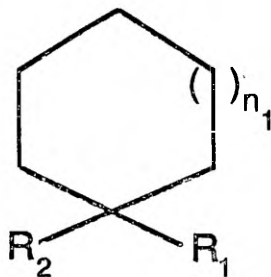
(i) n_2 is 1 or 2.

(ii) R₆₋₁ is 1 of the following:

(a) -H.

(b) C₁ alkyl, C₂ alkyl, or C₃ 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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(c) 2-pyrimidinyl or 4-pyrimidinyl.

(d) -C₆H₅, or a substituent that would be -C₆H₅ except that

1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been

replaced by 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(v) 2-thiophene.

(iii) R₂ 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:

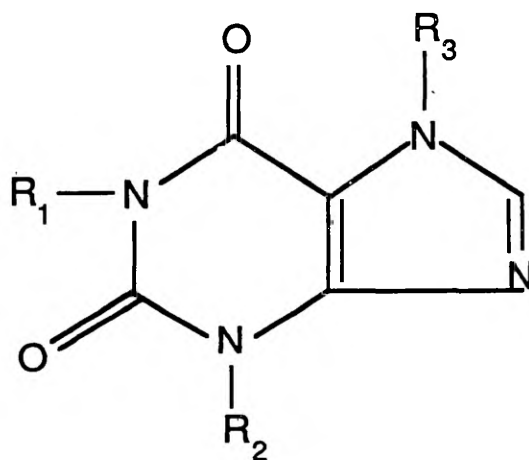
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(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.

1 (ii) R₂ is 1 of the following:

2 (A) -H.

3 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

4 (iii) R₃ is -(CH₂)_{n₁}-N(R₃₋₁)(R₃₋₂) in which all of the following
5 circumstances exist:

6 (A) n₁ is 1, 2, 3, or 4.

7 (B) R₄ is 1 of the following:

8 (i) -H.

9 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

10 (C) R₅ is -C(H)(R₃₋₃)-C(H)(R₃₋₄)-R₃₋₅ in which all of the following
11 circumstances exist:

12 (i) R₃₋₃ is 1 of the following:

13 (a) -H.

14 (b) C₁ alkyl.

15 (ii) R₃₋₄ is 1 of the following:

16 (a) -H.

17 (b) C₁ alkyl.

18 (iii) R₃₋₅ is -C₆H₅, or a substituent that would be -C₆H₅ except
19 that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been

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

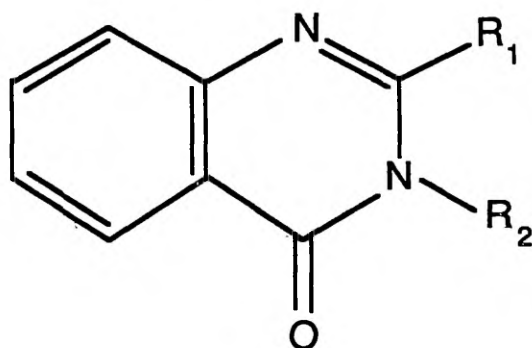
(a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(b) -F.

(c) -Cl.

(d) -CF₃.

(x) Any compound of the formula



in which all of the following circumstances exist:

(i) R₁ is 1 of the following:

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ 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:

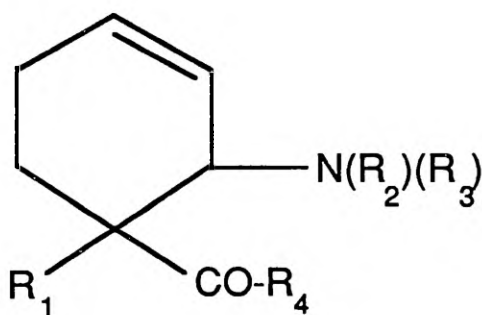
(A) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(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.

1 (B) -F.

2 (C) -Cl.

3 (D) -CF₃.

4 (ii) Either of the following circumstances exists:

5 (A) R₂ and R₃ are the same or different but each is 1 of the
6 following:

7 (i) -H.

8 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

9 (iii) -CH₂-CH=CH₂.

10 (B) R₂ and R₃ are taken together with the attached nitrogen atom to
11 form a heterocyclic ring that is 1 of the following:

12 (i) 1-pyrrolidinyl.

13 (ii) 1-piperidinyl.

14 (iii) 1-morpholinyl.

15 (iv) 1-piperazinyl.

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

19 (a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

1 (c) 2-pyrimidinyl or 4-pyrimidinyl.

2 (d) -C₆H₅, or a substituent that would be -C₆H₅ except that
3 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been
4 replaced by 1 or more of the following:

5 (i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

6 (ii) -F.

7 (iii) -Cl.

8 (iv) -CF₃.

9 (iii) R₄ is 1 of the following:

10 (A) -H.

11 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

12 (C) -O-R₄₋₁ in which R₅ is 1 of the following:

13 (i) -H.

14 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

15 (iii) -N(R₄₋₂)(R₄₋₃) in which either of the following
16 circumstances exists:

17 (a) R₄₋₂ and R₄₋₃ are the same or different but each is 1 of
18 the following:

19 (i) -H.

20 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) $-\text{CH}_2-\text{CH}=\text{CH}_2$.

(b) R4-2 and R4-3 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) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

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

(C) 2-pyrimidinyl or 4-pyrimidinyl.

(D) $-\text{C}_6\text{H}_5$, or a substituent that would be $-\text{C}_6\text{H}_5$ except that 1, 2, or 3 of the hydrogen atoms of $-\text{C}_6\text{H}_5$ have been replaced by a corresponding number of 1 or more of the following:

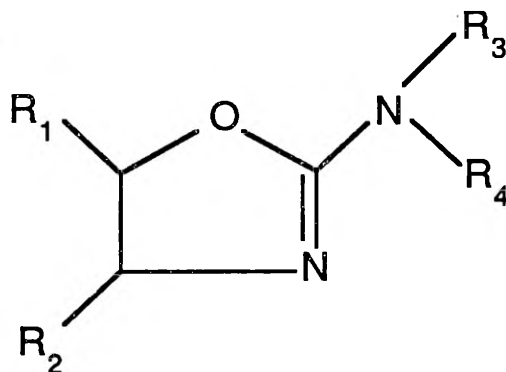
(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) $-\text{F}$.

(iii) -Cl.

(iv) -CF₃.

(z) Any compound of the formula



in which all of the following circumstances exist:

(i) R₁ is -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by 1 or more of the following:

(A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(B) -F.

(C) -Cl.

(D) -CF₃.

(ii) R₂ is 1 of the following:

1 (A) -H.

2 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

3 (iii) Either of the following circumstances exists:

4 (A) R₃ and R₄ are the same or different but each is 1 of the

5 following:

6 (i) -H.

7 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

8 (iii) -CH₂-CH=CH₂.

9 (B) R₃ and R₄ are taken together with the attached nitrogen atom to

0 form a heterocyclic ring that is 1 of the following:

1 (i) 1-pyrrolidinyl.

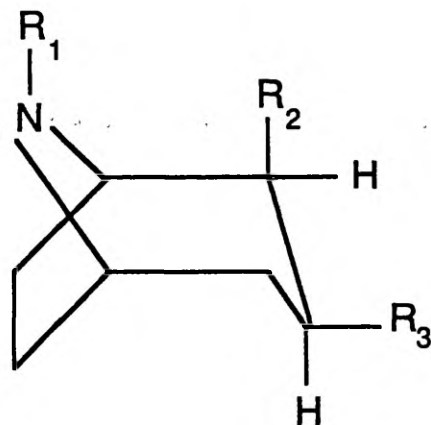
2 (ii) 1-piperidinyl.

3 (iii) 1-morpholinyl.

4 (iv) 1-piperazinyl.

1 (aa) Any compound of the formula

2



3

4

5 in which all of the following circumstances exist:

6 (i) R₁ is 1 of the following:

7 (A) -H.

8 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

9 (C) cyclopropyl.

10 (D) -CH₂-CH=CH₂.

11 (E) -CH₂-CH=C(CH₃)₂.

12 (F) -CH₂-cyclopropyl.

13 (G) -CH₂-CH₂-CH=CH₂.

14 (H) -COO-R₁₋₁ in which R₁₋₁ is 1 of the following:

15 (i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) -CH₂-CF₃.

(iv) -CH₂-CCl₃.

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

(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(C) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(v) -O-R₂₋₂ in which R₂₋₂ is 1 of the following:

(a) -H.

(b) C₁ alkyl or C₂ alkyl.

(c) C₁ acyl, C₂ acyl, or C₃ acyl.

(D) -CH₂-O-R₂₋₃ in which R₂₋₃ is 1 of the following:

(i) -H.

(ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(iii) -CO-R₂₋₄ in which R₂₋₄ is 1 of the following:

(a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(b) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(iii) R₃ is 1 if the following:

(A) -OH.

(B) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been replaced by a corresponding number of 1 or more of the following:

(i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(v) -O-R₃₋₁ in which R₃₋₁ is 1 of the following:

1 (a) -H.

2 (b) C₁ alkyl or C₂ alkyl.

3 (c) C₁ acyl, C₂ acyl, or C₃ acyl.

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

5 (i) -H.

6 (ii) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

7 (iii) -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2,
8 or 3 of the hydrogen atoms of -C₆H₅ have been replaced by
9 a corresponding number of 1 or more of the following:

0 (a) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

1 (b) -F.

2 (c) -Cl.

3 (d) -CF₃.

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

5 (i) -H.

6 (ii) C₁ alkyl or C₂ alkyl.

7 (iii) C₁ acyl, C₂ acyl, or C₃ acyl.

8 (D) -O-CO-CH₂-CH₂-N(R₃₋₄)(R₃₋₅) in which either of the following
9 circumstances exists:

(i) R₃₋₄ and R₃₋₅ are the same or different but each is 1 of the following:

(a) -H.

(b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(c) -CH₂-CH=CH₂.

(ii) R₃₋₄ and R₃₋₅ are taken together with the attached nitrogen atom to form a heterocyclic ring that is 1 of the following:

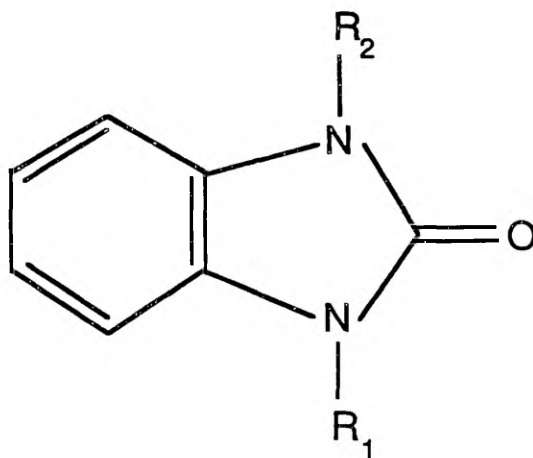
(a) 1-pyrrolidinyl.

(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) $-\text{CO}-R_{1-1}$ 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 $-(\text{CH}_2)_{n_1}-\text{C}(\text{R}_{2-1})(\text{R}_{2-2})-\text{R}_{2-3}$ 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) $-\text{CH}_2-\text{C}_6\text{H}_5$.

(ii) A substituent that would be $-\text{CH}_2-\text{C}_6\text{H}_5$ in which 1, 2, or 3 of the hydrogen atoms of $-\text{C}_6\text{H}_5$ 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) $-\text{F}$.

(c) $-\text{Cl}$.

(d) $-\text{CF}_3$.

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

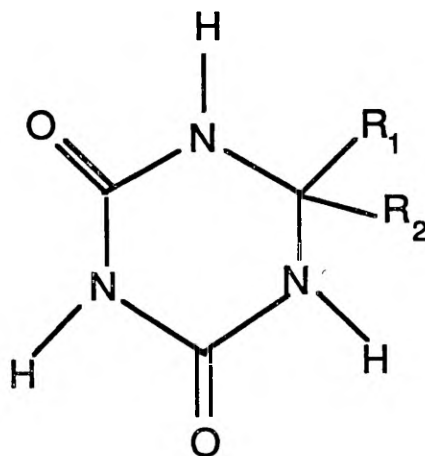
(i) -CN.

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

(a) -H.

(b) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(cc) Any compound of the formula



in which all of the following circumstances exist:

(i) R₁ is 1 of the following:

(A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(B) -CH₂-CH=CH₂.

(ii) R₂ is 1 of the following:

(A) C₁ alkyl, C₂ alkyl, C₃ alkyl, C₄ alkyl, C₅ alkyl, or C₆ 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:

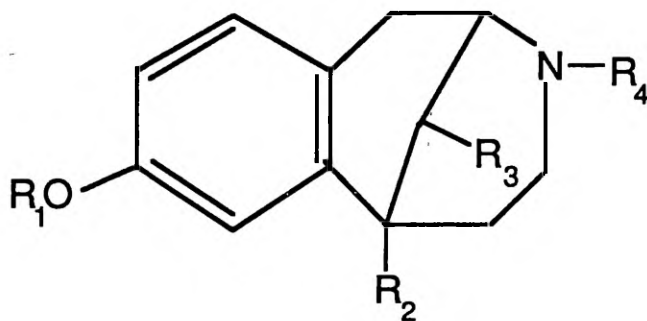
(i) C_1 alkyl, C_2 alkyl, or C_3 alkyl.

(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) $-H$.

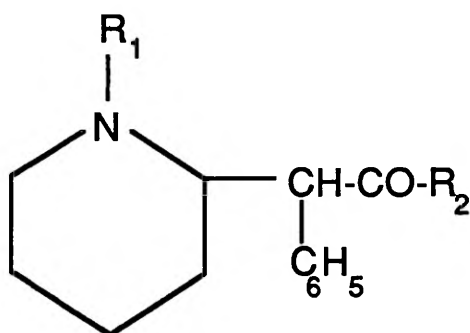
- 1 (B) C₁ acyl, C₂ acyl, C₃ acyl, C₄ acyl, or C₅ acyl.
- 2 (C) -CO-C₆H₅.
- 3 (ii) R₂ is 1 of the following:
- 4 (A) -H.
- 5 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.
- 6 (iii) R₃ is 1 of the following:
- 7 (A) -H.
- 8 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.
- 9 (iv) R₄ is 1 of the following:
- 10 (A) C₁ alkyl, C₂ alkyl, C₃ alkyl, or C₄ alkyl.
- 11 (B) -CH₂-CH=CH₂.
- 12 (C) -(CH₂)_{n₁}-R₅ in which both of the following circumstances exist:
- 13 (i) n₁ is 1, 2, 3, or 4.
- 14 (ii) R₅ is 1 of the following:
- 15 (a) cyclopropyl.
- 16 (b) -C₆H₅, or a substituent that would be -C₆H₅ except that
- 17 1, 2, or 3 of the hydrogen atoms of -C₆H₅ have been
- 18 replaced by a corresponding number of 1 or more of
- 19 the following:
- 20 (i) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) -F.

(iii) -Cl.

(iv) -CF₃.

(ee) Any compound of the formula



in which all of the following circumstances exist:

(i) R₁ is 1 of the following:

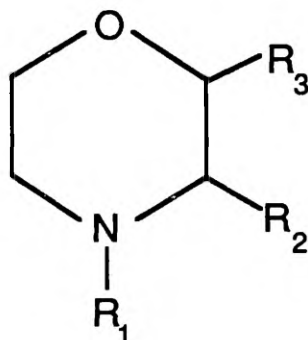
(A) -H.

(B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

(ii) R₂ is C₁ alkyl, C₂ alkyl, or C₃ alkyl.

1 (ff) Any compound of the formula

2



3

4 in which all of the following circumstances exist:

5 (i) R₁ is 1 of the following:

6 (A) -H.

7 (B) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

8 (ii) R₂ is C₁ alkyl, C₂ alkyl, or C₃ alkyl.

9 (iii) R₃ is -C₆H₅, or a substituent that would be -C₆H₅ except that 1, 2, or

10 3 of the hydrogen atoms of -C₆H₅ have been replaced by a

11 corresponding number of 1 or more of the following:

12 (A) C₁ alkyl, C₂ alkyl, or C₃ alkyl.

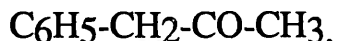
13 (B) -F.

14 (C) -Cl.

15 (D) -CF₃.

16

1 (gg) Any compound of the formula



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

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

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

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

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

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

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

1 (a) A prescription form, official prescription form, controlled substance,
2 an imitation controlled substance, a controlled substance analogue, an
3 androgenic anabolic steroid, ~~or~~ a counterfeit androgenic anabolic
4 steroid, ~~which~~ OR A SUBSTANCE REGULATED UNDER SECTION 7402A(1)(A)
5 TO (HH) THAT has been manufactured, CREATED, distributed, DELIVERED,
6 dispensed, used, possessed, or acquired in violation of this article or section
7 17766a.

8 (b) A raw material, product, or equipment of any kind ~~which~~ THAT is
9 used, or intended for use, in manufacturing, CREATING, compounding,
10 processing, delivering, importing, or exporting a controlled substance, a
11 controlled substance analogue, an androgenic anabolic steroid, ~~or~~ a
12 counterfeit androgenic anabolic steroid, OR A SUBSTANCE REGULATED
13 UNDER SECTION 7402A(1) TO (HH) in violation of this article or section
14 17766a; or a raw material, product, or equipment of any kind ~~which~~
15 THAT is intended for use in manufacturing, CREATING, compounding,
16 processing, delivering, importing, or exporting an imitation controlled
17 substance in violation of section 7341.

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

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

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

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

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

6 (iii) A conveyance is not subject to forfeiture for a violation of section
 7 7403(2)(c) or (d), section 7404, or section 7341(4).

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

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

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

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

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

7 (2) As used in this section:

8 (a) "Androgenic anabolic steroid" means that term as defined in section
 9 17766a.

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

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

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

22 (2) Species of plants from which controlled substances in schedules 1
 23 and 2 may be derived ~~which~~ THAT have been planted or cultivated in
 24 violation of this article, or of which the owner or cultivator is unknown,
 25 or ~~which~~ THAT are wild growths, may be seized and summarily forfeited
 26 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.