

# Formulación Orgánica

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## PARTE A: Nombrar compuestos (1–50)

1.  $\text{CH}_3\text{-C}(\text{CH}_3)_2\text{-CH}_2\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-OH}$
2.  $\text{CH}_2=\text{CH-CH}(\text{CH}_3)\text{-CH}_2\text{-CH}(\text{CH}_3)\text{-OH}$
3.  $\text{HC}\equiv\text{C-CH}(\text{CH}_3)\text{-CH}(\text{OH})\text{-CH}_2\text{-CH}_3$
4.  $\text{CH}_3\text{-CH}(\text{OH})\text{-CH}(\text{CH}_3)\text{-CH}=\text{CH}_2$
5.  $\text{CH}_3\text{-C}(\text{CH}_3)=\text{CH-CH}_2\text{-CH}_2\text{-OH}$
6.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-CHO}$
7.  $\text{CH}_2=\text{CH-CH}(\text{CH}_3)\text{-CH}_2\text{-CHO}$
8.  $\text{HC}\equiv\text{C-CH}(\text{CH}_3)\text{-CH}_2\text{-CHO}$
9.  $\text{CH}_3\text{-C}(\text{CH}_3)_2\text{-CH}_2\text{-CHO}$
10.  $\text{CH}_3\text{-CH}=\text{CH-CH}(\text{CH}_3)\text{-CHO}$
11.  $\text{CH}_3\text{-CO-CH}(\text{CH}_3)\text{-CH}_2\text{-CH}_3$
12.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CO-CH}=\text{CH}_2$
13.  $\text{CH}_2=\text{CH-CO-CH}(\text{CH}_3)\text{-CH}_3$
14.  $\text{HC}\equiv\text{C-CO-CH}(\text{CH}_3)\text{-CH}_3$
15.  $\text{CH}_3\text{-CO-C}(\text{CH}_3)_2\text{-CH}_3$
16.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-COOH}$
17.  $\text{CH}_2=\text{CH-CH}(\text{CH}_3)\text{-COOH}$
18.  $\text{HC}\equiv\text{C-CH}(\text{CH}_3)\text{-COOH}$
19.  $\text{CH}_3\text{-C}(\text{CH}_3)_2\text{-COOH}$
20.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CH}=\text{CH-COOH}$
21.  $\text{CH}_3\text{-COO-CH}(\text{CH}_3)\text{-CH}_2\text{-CH}_3$
22.  $\text{CH}_2=\text{CH-COO-CH}_2\text{-CH}_3$
23.  $\text{HC}\equiv\text{C-COO-CH}(\text{CH}_3)\text{-CH}_3$

24.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-COO-CH}_3$
  25.  $\text{CH}_3\text{-COO-C}(\text{CH}_3)_3$
  26.  $\text{CH}_3\text{-CH}(\text{NH}_2)\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-CH}_3$
  27.  $\text{CH}_2=\text{CH-CH}(\text{NH}_2)\text{-CH}_2\text{-CH}_3$
  28.  $\text{HC}\equiv\text{C-CH}(\text{NH}_2)\text{-CH}(\text{CH}_3)\text{-CH}_3$
  29.  $\text{CH}_3\text{-C}(\text{NH}_2)(\text{CH}_3)\text{-CH}_2\text{-CH}_3$
  30.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-CH}_2\text{-NH}_2$
  31.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CONH}_2$
  32.  $\text{CH}_2=\text{CH-CH}(\text{CH}_3)\text{-CONH}_2$
  33.  $\text{HC}\equiv\text{C-CH}(\text{CH}_3)\text{-CONH}_2$
  34.  $\text{CH}_3\text{-C}(\text{CH}_3)_2\text{-CONH}_2$
  35.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-CH}_2\text{-CONH}_2$
  36.  $\text{CH}_3\text{-CH}(\text{OH})\text{-CH}_2\text{-COOH}$
  37.  $\text{CH}_2=\text{CH-CH}(\text{OH})\text{-CH}_2\text{-CHO}$
  38.  $\text{HC}\equiv\text{C-CH}(\text{OH})\text{-CH}_2\text{-COOH}$
  39.  $\text{CH}_3\text{-CO-CH}(\text{CH}_3)\text{-CH}_2\text{-OH}$
  40.  $\text{CH}_3\text{-CH}(\text{NH}_2)\text{-CH}_2\text{-COOH}$
  41.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CH}(\text{OH})\text{-CH}=\text{CH}_2$
  42.  $\text{HC}\equiv\text{C-CH}(\text{CH}_3)\text{-COO-CH}_3$
  43.  $\text{CH}_2=\text{CH-CH}(\text{CH}_3)\text{-CONH}_2$
  44.  $\text{CH}_3\text{-CO-CH}=\text{CH-CH}(\text{CH}_3)\text{-CH}_3$
  45.  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-COO-CH}(\text{CH}_3)_2$
  46.  $\text{CH}_3\text{-CH}(\text{OH})\text{-CH}(\text{CH}_3)\text{-CHO}$
  47.  $\text{HC}\equiv\text{C-CH}(\text{CH}_3)\text{-CH}_2\text{-CONH}_2$
  48.  $\text{CH}_3\text{-C}(\text{CH}_3)=\text{CH-CH}_2\text{-COOH}$
  49.  $\text{CH}_2=\text{CH-CH}(\text{NH}_2)\text{-CH}_2\text{-COOH}$
  50.  $\text{CH}_3\text{-COO-CH}_2\text{-CH}(\text{CH}_3)\text{-CH}=\text{CH}_2$
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## PARTE B: Formular compuestos (51–100)

51. 4,4-dimetil-2-hexanol
52. 5-metilhex-2-en-1-ol
53. 6-metilhept-3-in-2-ol
54. 3-etil-4-metilpentan-1-ol
55. 2-metil-4-penten-1-ol
56. 3-etil-2-metilbutanal
57. 4-metilpent-2-enal
58. 5-metilhex-2-inal
59. 2-etil-3-metilpentanal
60. 3,3-dimetilbutanal
61. 4-etil-3-metil-2-pentanona
62. 5-metilhex-3-en-2-ona
63. 4-metilpent-3-in-2-ona
64. 3-etil-5-metilhexan-2-ona
65. 3,3-dimetil-2-butanona
66. Ácido 4-etil-3-metilpentanoico
67. Ácido 5-metilhex-2-enoico
68. Ácido 6-metilhept-3-inoico
69. Ácido 2-etil-3,3-dimetilbutanoico
70. Ácido 3,4-dimetilhexanoico
71. Metil 4-metilpentanoato
72. Etil 5-metilhex-2-enoato
73. Metil 6-metilhept-3-inoato
74. Isopropil 3-etilbutanoato
75. Etil 2,2-dimetilpropanoato
76. 3-amino-4-metilhexano
77. 4-aminohex-2-eno

78. 5-aminohept-3-ino
79. 2-amino-3,3-dimetilbutano
80. 4-amino-3-metilpentano
81. 4-metilpentanamida
82. 5-metilhex-2-enamida
83. 6-metilhept-3-inamida
84. 3-etil-4-metilpentanamida
85. 2,2-dimetilpropanamida
86. Ácido 2-amino-3-metilbutanoico
87. 4-hidroxi-3-metilpentanal
88. 3-hidroxi-4-metilhexan-2-ona
89. Metil 4-aminopentanoato
90. 3-amino-4-metilpentan-2-ol
91. Ácido 3-hidroxi-4-metilpentanoico
92. Etil 3-amino-4-metilpentanoato
93. 4-amino-3-hidroxipentanoico
94. 3-hidroxi-2-metilbutanamida
95. 2-amino-4-metilpent-3-en-1-ol
96. 5-amino-4-metilhex-2-inoico
97. 3-hidroxi-5-metilhept-2-enamida
98. Metil 3-hidroxi-4-metilpentanoato
99. 4-amino-5-metilhexan-2-ona
100. Ácido 3-amino-4-hidroxihexanoico

## **Soluciones**

1. 2,2-dimetilpentan-1-ol
  2. 3,5-dimetilpent-1-en-4-ol
  3. 3-metilhex-1-in-4-ol
  4. 3-metilpent-4-en-2-ol
  5. 2-metilpent-2-en-1-ol
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6. 3-metilbutanal
  7. 3-metilpent-4-enal
  8. 3-metilpent-1-inal
  9. 3,3-dimetilbutanal
  10. 3-metilpent-2-enal
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11. 3-metilpentan-2-ona
  12. 4-metilpent-1-en-3-ona
  13. 4-metilpent-1-en-3-ona
  14. 4-metilpent-1-in-3-ona
  15. 3,3-dimetilbutan-2-ona
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16. 3-metilbutanoico
17. 3-metilbut-3-enoico
18. 3-metilbut-2-inoico
19. 2,2-dimetilpropanoico
20. 4-metilpent-2-enoico

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21. etanoato de 2-metilpropilo
  22. propenoato de etilo
  23. propinoato de 2-metilpropilo
  
  24. 2-metilpropanoato de metilo
  25. etanoato de terc-butilo
  26. 3-metilpentan-2-amina
  27. pent-4-en-2-amina
  28. 2-amino-3-metilpent-1-ino
  29. 2-amino-2-metilbutano
  30. 3-metilbutan-1-amina

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31. 2-metilpropanamida
  32. 3-metilbut-3-enamida
  33. 3-metilbut-2-inamida
  34. 2,2-dimetilpropanamida
  35. 4-metilpentanamida

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36. 3-hidroxi-butanoico
  37. 3-hidroxi-pent-4-enal
  38. 3-hidroxi-but-2-inoico
  39. 4-hidroxi-2-metilbutan-2-ona
  40. 3-aminobutanoico
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41. 4-metilpent-1-en-3-ol
  42. 2-metilprop-2-inoato de metilo
  43. 3-metilbut-3-enamida
  44. 5-metilhex-3-en-2-ona
  45. 3-metilbutanoato de isopropilo
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46. 3-hidroxi-2-metilpropanal
47. 3-metilbut-2-inamida
48. 4-metilpent-3-enoico
49. 3-aminobut-3-enoico
50. etanoato de 3-metilbut-3-enilo

51. 4,4-dimetil-2-hexanol  
→  $\text{CH}_3\text{-CH(OH)-CH}_2\text{-C(CH}_3)_2\text{-CH}_2\text{-CH}_3$
  52. 5-metilhex-2-en-1-ol  
→  $\text{HO-CH}_2\text{-CH=CH-CH}_2\text{-CH(CH}_3\text{)-CH}_3$
  53. 6-metilhept-3-in-2-ol  
→  $\text{CH}_3\text{-CH(OH)-C}\equiv\text{C-CH}_2\text{-CH(CH}_3\text{)-CH}_3$
  54. 3-etil-4-metilpentan-1-ol  
→  $\text{HO-CH}_2\text{-CH}_2\text{-CH(CH}_2\text{CH}_3\text{)-CH(CH}_3\text{)-CH}_3$
  55. 2-metil-4-penten-1-ol  
→  $\text{HO-CH}_2\text{-CH(CH}_3\text{)-CH}_2\text{-CH=CH}_2$
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56. 3-etil-2-metilbutanal  
→  $\text{CH}_3\text{-CH(CH}_3\text{)-CH(CH}_2\text{CH}_3\text{)-CHO}$

57. 4-metilpent-2-enal  
→  $\text{CH}_3\text{-CH=CH-CH(CH}_3\text{)-CHO}$
58. 5-metilhex-2-inal  
→  $\text{HC}\equiv\text{C-CH}_2\text{-CH}_2\text{-CH(CH}_3\text{)-CHO}$
59. 2-etil-3-metilpentanal  
→  $\text{CH}_3\text{-CH}_2\text{-CH(CH}_3\text{)-CH(CH}_2\text{CH}_3\text{)-CHO}$
60. 3,3-dimetilbutanal  
→  $\text{CH}_3\text{-C(CH}_3\text{)}_2\text{-CH}_2\text{-CHO}$
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61. 4-etil-3-metil-2-pentanona  
→  $\text{CH}_3\text{-CO-CH(CH}_3\text{)-CH(CH}_2\text{CH}_3\text{)-CH}_3$
62. 5-metilhex-3-en-2-ona  
→  $\text{CH}_3\text{-CO-CH=CH-CH(CH}_3\text{)-CH}_3$
63. 4-metilpent-3-in-2-ona  
→  $\text{CH}_3\text{-CO-C}\equiv\text{C-CH(CH}_3\text{)-CH}_3$
64. 3-etil-5-metilhexan-2-ona  
→  $\text{CH}_3\text{-CO-CH(CH}_2\text{CH}_3\text{)-CH}_2\text{-CH(CH}_3\text{)-CH}_3$
65. 3,3-dimetil-2-butanona  
→  $\text{CH}_3\text{-CO-C(CH}_3\text{)}_2\text{-CH}_3$
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66. Ácido 4-etil-3-metilpentanoico  
→  $\text{CH}_3\text{-CH}_2\text{-CH(CH}_3\text{)-CH(CH}_2\text{CH}_3\text{)-COOH}$
67. Ácido 5-metilhex-2-enoico  
→  $\text{CH}_3\text{-CH=CH-CH}_2\text{-CH(CH}_3\text{)-COOH}$
68. Ácido 6-metilhept-3-inoico  
→  $\text{CH}_3\text{-CH}_2\text{-C}\equiv\text{C-CH}_2\text{-CH(CH}_3\text{)-COOH}$

69. Ácido 2-etil-3,3-dimetilbutanoico  
→  $\text{CH}_3\text{-C}(\text{CH}_3)_2\text{-CH}(\text{CH}_2\text{CH}_3)\text{-COOH}$
70. Ácido 3,4-dimetilhexanoico  
→  $\text{CH}_3\text{-CH}_2\text{-CH}(\text{CH}_3)\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-COOH}$
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71. Metil 4-metilpentanoato  
→  $\text{CH}_3\text{-CH}_2\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-COO-CH}_3$
72. Etil 5-metilhex-2-enoato  
→  $\text{CH}_3\text{-CH=CH-CH}_2\text{-CH}(\text{CH}_3)\text{-COO-CH}_2\text{-CH}_3$
73. Metil 6-metilhept-3-inoato  
→  $\text{CH}_3\text{-CH}_2\text{-C}\equiv\text{C-CH}_2\text{-CH}(\text{CH}_3)\text{-COO-CH}_3$
74. Isopropil 3-etilbutanoato  
→  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-O-CO-CH}_2\text{-CH}(\text{CH}_2\text{CH}_3)\text{-CH}_3$
75. Etil 2,2-dimetilpropanoato  
→  $(\text{CH}_3)_3\text{C-COO-CH}_2\text{-CH}_3$
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76. 3-amino-4-metilhexano  
→  $\text{CH}_3\text{-CH}_2\text{-CH}(\text{NH}_2)\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-CH}_3$
77. 4-aminohex-2-eno  
→  $\text{CH}_3\text{-CH=CH-CH}(\text{NH}_2)\text{-CH}_2\text{-CH}_3$
78. 5-aminohept-3-ino  
→  $\text{CH}_3\text{-CH}_2\text{-C}\equiv\text{C-CH}(\text{NH}_2)\text{-CH}_2\text{-CH}_3$
79. 2-amino-3,3-dimetilbutano  
→  $\text{CH}_3\text{-CH}(\text{NH}_2)\text{-C}(\text{CH}_3)_2\text{-CH}_3$
80. 4-amino-3-metilpentano  
→  $\text{CH}_3\text{-CH}_2\text{-CH}(\text{CH}_3)\text{-CH}(\text{NH}_2)\text{-CH}_3$

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81. 4-metilpentanamida  
→  $\text{CH}_3\text{-CH}_2\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-CONH}_2$
82. 5-metilhex-2-enamida  
→  $\text{CH}_3\text{-CH=CH-CH}_2\text{-CH}(\text{CH}_3)\text{-CONH}_2$
83. 6-metilhept-3-inamida  
→  $\text{CH}_3\text{-CH}_2\text{-C}\equiv\text{C-CH}_2\text{-CH}(\text{CH}_3)\text{-CONH}_2$
84. 3-etil-4-metilpentanamida  
→  $\text{CH}_3\text{-CH}_2\text{-CH}(\text{CH}_2\text{CH}_3)\text{-CH}(\text{CH}_3)\text{-CONH}_2$
85. 2,2-dimetilpropanamida  
→  $(\text{CH}_3)_3\text{C-CONH}_2$

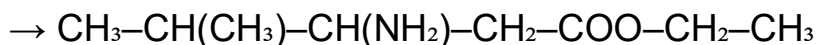
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86. Ácido 2-amino-3-metilbutanoico  
→  $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CH}(\text{NH}_2)\text{-COOH}$
87. 4-hidroxi-3-metilpentanal  
→  $\text{CH}_3\text{-CH}_2\text{-CH}(\text{CH}_3)\text{-CH}(\text{OH})\text{-CHO}$
88. 3-hidroxi-4-metilhexan-2-ona  
→  $\text{CH}_3\text{-CO-CH}(\text{OH})\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-CH}_3$

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89. Metil 4-aminopentanoato  
→  $\text{CH}_3\text{-CH}(\text{NH}_2)\text{-CH}_2\text{-CH}_2\text{-COO-CH}_3$
90. 3-amino-4-metilpentan-2-ol  
→  $\text{CH}_3\text{-CH}(\text{OH})\text{-CH}(\text{NH}_2)\text{-CH}(\text{CH}_3)\text{-CH}_3$
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91. Ácido 3-hidroxi-4-metilpentanoico



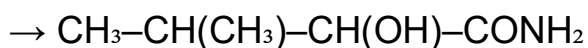
92. Etil 3-amino-4-metilpentanoato



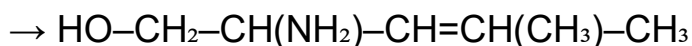
93. 4-amino-3-hidroxipentanoico



94. 3-hidroxi-2-metilbutanamida



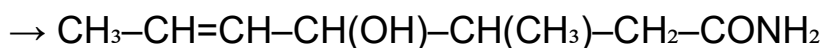
95. 2-amino-4-metilpent-3-en-1-ol



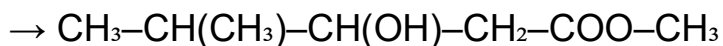
96. 5-amino-4-metilhex-2-inoico



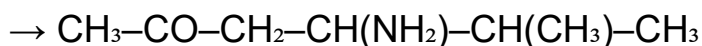
97. 3-hidroxi-5-metilhept-2-enamida



98. Metil 3-hidroxi-4-metilpentanoato



99. 4-amino-5-metilhexan-2-ona



100. Ácido 3-amino-4-hidroxihexanoico

