

## Supplier Price Data for Materials

- **Dimethylformamide (DMF)** – TCI Chemical (Tokyo Chemical Ind.) lists DMF (99.8%) 25 mL at \ \$17.00 <sup>1</sup> . ChemicalBook data show AK Scientific DMF (500 mL) at \ \$67.00 <sup>2</sup> and Chem-Impex DMF (250 mL) at \ \$11.20 <sup>3</sup> .
- **Toluene** – Sigma-Aldrich offers ACS-grade toluene: 500 mL for \ \$41.37 and 1 L for \ \$88.50 <sup>4</sup> .
- **Acetic Anhydride** – The Science Company sells acetic anhydride (purified, 97%) 500 mL for \ \$29.95 <sup>5</sup> .
- **Citric Acid** – Sigma-Aldrich lists citric acid (ACS reagent,  $\geq 99.5\%$ ) 500 g for \ \$89.80 <sup>6</sup> .
- **Piperidine** – Sigma-Aldrich (via CP Lab Safety) offers piperidine 99% (ReagentPlus) 100 mL (case of 4  $\times$  100 mL) at \ \$246.41 <sup>7</sup> ( $\approx$  \ \$61.60 each).
- **Magnesium Stearate** – ChemicalBook shows Chem-Impex sells magnesium stearate (USP, 90% basis) 250 g for \ \$16.80 <sup>8</sup> (Ambeed offers 1 kg for \ \$25 <sup>9</sup> ).
- **Sodium Hydroxide (NaOH)** – Sigma-Aldrich lists NaOH pellets (ACS reagent,  $\geq 97\%$ ) 500 g for \ \$85.20 <sup>10</sup> .
- **Hydrochloric Acid (HCl)** – Lab Alley offers HCl 37% (ACS grade) 500 mL for \ \$72.60 <sup>11</sup> .
- **Methanol** – ChemPure brand lists methanol 100% (HPLC grade) 4 L for \ \$55.00 <sup>12</sup> .
- **Ethanol** – Sigma-Aldrich sells ethanol ( $\geq 95\%$ ) 1 gal ( $\sim 3.8$  L) for \ \$133.00 <sup>13</sup> .
- **Triethylchlorosilane (TES-Cl)** – Spectrum Chemical lists 100 mL of TES (99%) at \ \$1,114.28 <sup>14</sup> .
- **Trimethylsilyl Cyanide (TMS-CN)** – Sigma-Aldrich sells 5 g of TMS-CN (98%) for \ \$57.80 <sup>15</sup> .
- **Tapentadol HCl (IP)** – PharmaCompass import data report Tapentadol HCl IP around \ \$650–\ \$925 per kg (e.g. Feb–Mar 2022) <sup>16</sup> <sup>17</sup> .

Each price above is from a real supplier quote or database (see references). Currency is USD unless indicated. (Suppliers are global and include lab chemical distributors and industry data sources.)

**Sources:** Cited vendor and chemical database pages <sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup> <sup>7</sup> <sup>8</sup> <sup>10</sup> <sup>11</sup> <sup>12</sup> <sup>13</sup> <sup>14</sup> <sup>15</sup> <sup>16</sup> <sup>17</sup> .

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1 N,N-Dimethylformamide 68-12-2 | TCI AMERICA

<https://www.tcichemicals.com/US/en/p/D0722>

2 3 N,N-Dimethylformamide price, buy N,N-Dimethylformamide - chemicalbook

<https://www.chemicalbook.com/Price/N-N-Dimethylformamide.htm>

4 Toluene ACS reagent, = 99.5 108-88-3

[https://www.sigmaaldrich.com/US/en/product/sigald/179418?srsId=AfmBOoqDF\\_EmU-v2J2YLoxpXrvmvXNagjaWCTf0kkyAr2Kq1JPqmb9y2](https://www.sigmaaldrich.com/US/en/product/sigald/179418?srsId=AfmBOoqDF_EmU-v2J2YLoxpXrvmvXNagjaWCTf0kkyAr2Kq1JPqmb9y2)

5 Acetic Anhydride, 500mL for sale. Buy from The Science Company.

<https://www.sciencecompany.com/Acetic-Anhydride-500mL-P17552>

6 Citric acid ACS reagent, = 99.5 77-92-9

[https://www.sigmaaldrich.com/US/en/product/sial/251275?srsId=AfmBOoofcgUy-fW2G98DnjAxmSAGWdre4s1bMVB4rK5BHVg\\_33-kB6XF](https://www.sigmaaldrich.com/US/en/product/sial/251275?srsId=AfmBOoofcgUy-fW2G98DnjAxmSAGWdre4s1bMVB4rK5BHVg_33-kB6XF)

7 Piperidine, Reagent Plus 99%, 100mL, case/4

[https://www.calpaclab.com/piperidine-reagent-plus-99-percent-100ml-millipore-sigma/mil-104094-4x100ml?srsId=AfmBOoreeR9wj-wsQBzq0Fv0XcShauUcdCULuNJ\\_6\\_b5hXN8I2jJOFKd](https://www.calpaclab.com/piperidine-reagent-plus-99-percent-100ml-millipore-sigma/mil-104094-4x100ml?srsId=AfmBOoreeR9wj-wsQBzq0Fv0XcShauUcdCULuNJ_6_b5hXN8I2jJOFKd)

8 9 Magnesium stearate price, buy Magnesium stearate - chemicalbook

<https://www.chemicalbook.com/Price/Magnesium-stearate.htm>

10 Sodium hydroxide ACS reagent, = 97.0 , pellets 1310-73-2

<https://www.sigmaaldrich.com/US/en/product/sigald/221465?srsId=AfmBOooquqompZveoyDgbtJ0dmJRgzbFAnKzmRLJ8IO5qlXK0SszuYa1>

11 Hydrochloric Acid 37% Solution, ACS Reagent Grade | Lab Alley

<https://www.laballey.com/products/hydrochloric-acid-37-percent-solution-acs-grade?srsId=AfmBOoqPIfViRI0bSuc-hzgUp6CbqYcaNjiwPQBorMcTkWCxbrzla7Uc>

12 Methanol price, buy Methanol - chemicalbook

<https://www.chemicalbook.com/Price/Methanol-2.htm>

13 Ethanol | 64-17-5

[https://www.chemicalbook.com/ChemicalProductProperty\\_EN\\_CB2362508.htm](https://www.chemicalbook.com/ChemicalProductProperty_EN_CB2362508.htm)

14 HAZMAT (Dangerous Goods) - Triethylchlorosilane, 100mL

[https://www.calpaclab.com/triethylchlorosilane-100ml-each/spc-t2087-100ml?srsId=AfmBOopqikhfWTSWbLM\\_yuYav7Ihp-a4wc0iqbeUbOLjOdpqjAe9oeNI](https://www.calpaclab.com/triethylchlorosilane-100ml-each/spc-t2087-100ml?srsId=AfmBOopqikhfWTSWbLM_yuYav7Ihp-a4wc0iqbeUbOLjOdpqjAe9oeNI)

15 Trimethylsilyl cyanide 98 7677-24-9

[https://www.sigmaaldrich.com/US/en/product/aldrich/212849?srsId=AfmBOorsUxZOuOC4HOk9vOIkttsqGgTBbQ3T\\_alBt3gZKIh4ToqQ17CP](https://www.sigmaaldrich.com/US/en/product/aldrich/212849?srsId=AfmBOorsUxZOuOC4HOk9vOIkttsqGgTBbQ3T_alBt3gZKIh4ToqQ17CP)

16 17 Tapentadol | Price | per kg | USD | PharmaCompass.com

<https://www.pharmacompass.com/price/tapentadol>