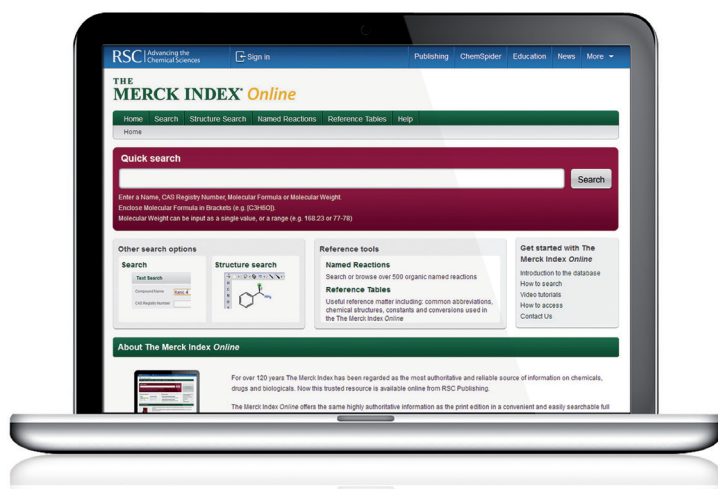


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# Sample record

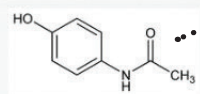
**THE MERCK INDEX Online**

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Home > Monograph

### Monograph Details

**Monograph ID:** MONO150000047  
**Title:** Acetaminophen  
**CAS Registry Number:** 103-90-2  
**CAS Name:** N-(4-Hydroxyphenyl)acetamide  
**Additional Names:** 4'-hydroxyacetanilide, p-hydroxyacetanilide, p-acetamidophenol, p-acetaminophenol, p-acetylamino-phenol, N-acetyl-p-aminophenol, paracetamol  
**Trademark Names:** Acamol (Volta), Alpiny (SS Pharm.), Alvedon (AstraZeneca), Anhiba (Abbott), Ben-u-ron (Novartis), Calpol (Pfizer), Calradol (Bayer), Captin (Krewel), Dafalgan (BMS), Datrii (BMS), Diprox (Gramon), Disprol (Reckitt Benckiser), Doliprane (Sanofi-Aventis), Dolitabs (Sanofi-Aventis), Dolviran (Bayer), Efferalgan (BMS), Efferalganodis (UPSA), Enefla (Dolorgiet), Expandox (Expanspharm), Fensum (Merkle), Geluprane (Sanofi-Aventis), Hedex (GSK), Malex (Ecosol), Mejrallito (GSK), Panadol (GSK), Panamax (Sanofi-Aventis), Panodil (GSK), Pasolind N (Stada), Perfalgan (BMS), Sanipirina (Bayer), Sedalito (Merck KGaA), Tempra (BMS), Tylenol (McNeil)  
**Molecular Formula:** C<sub>8</sub>H<sub>9</sub>NO<sub>2</sub>  
**Molecular Weight:** 151.17  
**Percent Composition:** C 63.56%, H 6.00%, N 9.27%, O 21.17%



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Image Structure

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### Properties

Large monoclinic prisms from water, mp 169–170.5°C, d<sub>4</sub><sup>25</sup> 1.293. uv max (ethanol): 250 nm (ε 13800). Freely sol in alcohol. Sol in methanol, ethanol, dimethylformamide, ethylene dichloride, acetone, ethyl acetate, boiling water, 1N sodium hydroxide. Slightly sol in ether. Very slightly sol in cold water. Practically insol in petr ether, pentane, benzene. LD<sub>50</sub> in mice (mg/kg): 338 orally, 500 i.p. See: G. A. Stramer et al., *Toxicol. Appl. Pharmacol.* **19**, 20 (1971) 10.1016/0041-008X(71)90185-25570565; D. C. Dahlin, S. D. Nelson, *J. Med. Chem.* **25**, 885 (1982) 10.1021/jm00350a0017120276.

### Use

Manuf azo dyes, photographic chemicals.

### References

Synthetic non-opiate analgesic. Prep'n from p-nitrophenol: Morse, *Ber.* **11**, 232 (1878); Tingle, Williams, *Am. Chem. J.* **37**, 63 (1907); from p-aminophenol: Lumière et al., *Bull. Soc. Chim. Fr.* [3] **33**, 785 (1905); Fierz-David, Kuster, *Helv. Chim. Acta* **22**, 49 (1939); Wilbert, De Angelis, US 2998450 (1961 to Warner-Lambert); Bergmann, DE 453577; *Chem. Zvesten* **1928**, 1, 2663; *Frdl.* **16**, 238; from p-hydroxyacetophenone hydrazone: Pearson et al., *J. Am. Chem. Soc.* **76**, 607 (1953). Evaluation of renal effects: D. P. Sandler et al., *N. Engl. J. Med.* **320**, 1238 (1989)2651928; *Clin. Rheum. Arthritis*: A. R. Temple et al., *Clin. Ther.* **28**, 222 (2006) 10.1016/j.clinthera.2006.02.0041667065. Molecular toxicology: P. D. Josephy, *Drug Metab. Rev.* **37**, 581 (2005) 10.1080/0360253050020520016393886. Comprehensive description: J. E. Fairbrother, *Anal. Profiles Drug Subs.* **3**, 1-109 (1974). Review of pharmacology: B. Ameer, D. J. Greenblatt, *Ann. Intern. Med.* **87**, 202-209 (1977)329728. Review of mechanism of hepatotoxicity: L. P. James et al., *Drug Metab. Dispos.* **31**, 1499-1506 (2003) 10.1124/dmd.31.12.149914625346; of acetaminophen-induced acute liver failure: A. M. Larson et al., *Hepatology* **42**, 1364-1372 (2005) 10.1002/hep.2094816317692.

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Links to outside information

Properties individually searchable

References linked from monographs

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Users can perform simple searches on a number of different properties and fields, construct complex multiparameter searches, and search by chemical structure.

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Thomas Graham House  
Science Park, Milton Road  
Cambridge, CB4 0WF, UK  
Tel: +44 (0)1223 420066

Burlington House  
Piccadilly, London  
W1J 0BA, UK  
Tel: +44 (0)20 7437 8656

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