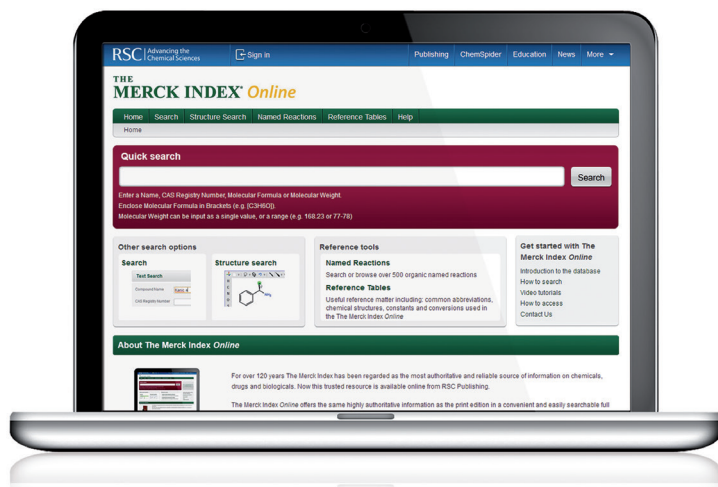


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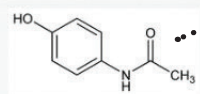
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Home > Monograph

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 (Merckle), 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: C₈H₉NO₂
Molecular Weight: 151.17
Percent Composition: C 63.56%, H 6.00%, N 9.27%, O 21.17%



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Large monoclinic prisms from water, mp 169-170.5°C, d₄²⁵ 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. LD₅₀ 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. Zentrbl.* **1928**, I, 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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