

**MarvinSketch, penggunaannya untuk mengakses web page database**

**Niko P.**

**@neax502**

**Neax502.wordpress.com**

- **Kemoinformatika berkaitan dengan software dan database.**
- **Salah satu software yang dapat digunakan untuk mengakses data base/web page database adalah MarvinSketch.**
- **MarvinSketch adalah software buatan ChemAxon.**
- **Software ini dapat didownload secara bebas dari [www.chemaxon.com](http://www.chemaxon.com).**
- **Meski demikian, kita bisa membeli lisensi untuk mengaktifkan plugin-plugin yang lebih banyak.**
- **MarvinSketch berjalan di atas 3 OS, yaitu: Microsoft Windows, Mac OS dan Linux**
- **Untuk menjalankannya harus menginstall Java.**

•

- **MarvinSketch dapat digunakan untuk menggambar struktur, menampilkan nama dari struktur, menampilkan koefisien partisi, protonasi, analisis topologi dll.**
- **Dalam kaitannya dengan kemoinformatika, MarvinSketch dapat digunakan untuk mengakses database PubChem, ChemSpider dan chemicalize.**
- **Gambar dulu struktur yang diinginkan, kemudian baru mencari di database.**

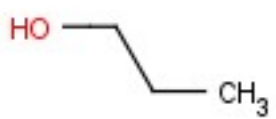
-

File Edit View Insert Atom Bond Structure Tools Help

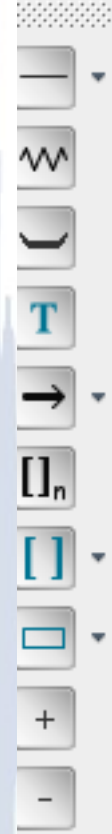
Navigation and editing toolbar with icons for selection, erasing, undo, redo, cut, copy, paste, zoom in, zoom out, zoom level (100%), and help.

Vertical toolbar with icons for drawing lines, wavy lines, parentheses, text, arrows, rings, rectangles, and zoom in/out.

O

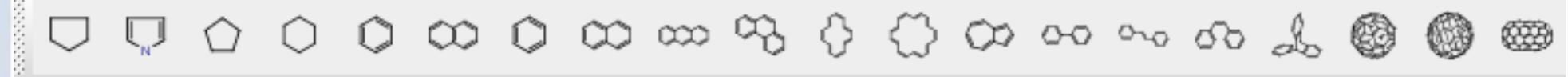


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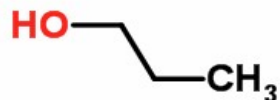
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- Remove
- Edit Data...
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- Reaction
- Mapping
- Attribute
- Find Structure Online
- Check Structure Ctrl-R
- Auto Check

- Find Structure in ChemSpider
- Find Structure in PubChem
- Find Structure in Chemicalize



2D \*

## Propan-1-ol



ChemSpider ID: **1004**

Molecular Formula: C<sub>3</sub>H<sub>8</sub>O

Monoisotopic mass: 60.058 Da

▼ Systematic name  
propan-1-ol

▶ SMILES and InChIs

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Names and Identifiers Print

Names and Synonyms Database ID(s)

Validated by Experts, Validated by Users, Non-Validated, Removed by Users, Redirected by Users, Redirect Approved by Experts Edit

1-HYDROXYPROPANE

1-propanol

1-Propyl alcohol

4-01-00-01413 (Beilstein Handbook Reference) [\[Beilstein\]](#)

Alcohol, propyl

Alcool propilico

Alcool propylique

Hydroxypropane

n-propan-1-ol

n-propanol

[More...](#)

ChemSpider Searches

Properties

Spectra

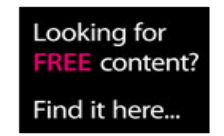
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Browser address bar: <http://www.chemspider.com/Chemical-Structure.1004.html>

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Page title: ChemSpider | Propan-1-ol | C3H...

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Data supplied by datasources and users.

### • Experimental Physchem Properties

- Melting Point: -127 [?](#) [↗](#)
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- Flash Point: 15(59F) [?](#) [↗](#)
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## Spectra

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**Approved:** No  
**Submitted by:** [antony.williams](#)

OPEN DATA

• **Type:** Infrared  
**Associated Hyperlink:** <http://www.spectraschool.org>  
**Comments:** Thanks to contributions from the following partners: The Next Generation (CTNG) and Chemistry for our Future (CFOF) projects. The Royal Society of Chemistry (RSC) for joint project funding. Sigma Aldrich for supplying a wide range of chemicals and accessories. The University of Leicester for running the spectra. Prof. Paul Cullis and Dr. Jonny Woodward at the University of Leicester for the project concept, design and management. Alex Renshaw and Ted Lister at Presenting Science for the SpectraSchool concept, design and programming.  
**Approved:** No  
**Submitted by:** [antony.williams](#)

OPEN DATA

• **Type:** Electron Impact  
**Associated Hyperlink:** <http://www.spectraschool.org>  
**Comments:** Thanks to contributions from the following partners: The Higher Education Funding Council of England (HEFCE) for funding the Chemistry:

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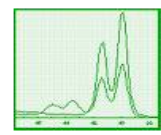
- c13nmr.jdx**  
which is a: JDX file  
from: <http://www.chemspider.com>

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## Articles



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- Volha Vetokhina, Michał Kijak, Gabriela Wiosna-Salyga, Randolph P. Thummel, Jerzy Herbich and Jacek Waluk. On the origin of fluorescence quenching of pyridylindoles by hydroxylic solvents, *Photochem. Photobiol. Sci.*, 2010, 9, 923.  
[DOI: 10.1039/c0pp00043d]
- Jonghyun Choi, Kyung Min Lee, Ryszard Wycisk, Peter N. Pintauro and Patrick T. Mather. Nanofiber composite membranes with low equivalent weight perfluorosulfonic acid polymers, *J. Mater. Chem.*, 2010, 20, 6282.  
[DOI: 10.1039/c0jm00441c]
- Ana G. Maldonado and Gadi Rothenberg. Predictive modeling in homogeneous catalysis: a tutorial, *Chem. Soc. Rev.*, 2010, 39, 1891.  
[DOI: 10.1039/b921393g]
- Shuxun Cui. The possible roles of water in the prebiotic chemical evolution of DNA, *Phys. Chem. Chem. Phys.*, 2010, 12, 10147.  
[DOI: 10.1039/c002414g]
- Costas Tsiouptis, Ioannis TsvintzeliCurrent address: Department of Chemical and Biochemical Engineering, Technical University of Denmark. and Costas Panayiotou. Equation-of-state modeling of mixtures with ionic liquids, *Phys. Chem. Chem. Phys.*, 2010, 12, 4843.  
[DOI: 10.1039/c000208a]
- Jeong Woo Lee, Woo Chul Choi and Jong-Duk Kim. Size-controlled layered zinc hydroxide intercalated with dodecyl sulfate: effect of alcohol type on dodecyl sulfate template, *CrystEngComm*, 2010, 12, 3249.  
[DOI: 10.1039/c002296a]
- John McMurtrie and Ian Dance. Alternative metal grid structures formed by [M(terpy)2]2+ and [M(terpyOH)] complexes with small and large tetrahedral dianions, and by [Ru(terpy)], *CrystEngComm*, 2010, 12, 2700.  
[DOI: 10.1039/b926074a]
- Lik H. Wee, Sneha R. Bajpe, Nikki Janssens, Ive Hermans, Kristof Houthoofd, Christine E. A. Kirschhock and Johan A. Martens. Convenient synthesis of Cu3(BTC)2 encapsulated Keggin heteropolyacid nanomaterial for application in catalysis, *Chem. Commun.*, 2010, 46, 8186.  
[DOI: 10.1039/c0cc01447h]
- Jennifer Hannant, Joseph H. Hedley, Jonathan Pate, Adam Walli, Said A. Farha Al-Said, Miguel A. Galindo, Bernard A. Connolly, Benjamin R. Horrocks, Andrew Houlton and Andrew R. Pike. Modification of DNA-templated conductive polymer nanowires via click chemistry, *Chem. Commun.*, 2010, 46, 5870.  
[DOI: 10.1039/c0cc00693a]
- Xiaoxiao Guo, Fazhi Zhang, David G. Evans and Xue Duan. Layered double hydroxide films: synthesis, properties and applications, *Chem. Commun.*, 2010, 46, 5197.  
[DOI: 10.1039/c0cc00313a]

## Patents



Google Patents USPTO Granted USPTO Applications European Granted European Applications WO/PCT Japanese Abstracts

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### [Process for ammoxidation of 1-propanol](#)

US Pat. 4138430 - Sep 28, 1977 - E. I. Du Pont de Nemours and Company  
PROCESS FOR AMMOXIDATION OF **1-PROPANOL** CROSS REFERENCE TO RELATED APPLICATIONS This application is a continuation-in-part application of our copending ...



### [Amino-Propanol Derivatives](#)

US Pat. App 11568645 - May 25, 2005  
27, 2007 (54) AMINO-**PROPANOL** DERIVATIVES Publication Classification (76) Inventors: Klaus Hinterding, Wittlingen (DE); Klemens Hogenauer, Wien (AT); ...



### [ISOPROPYL-Z-PROPANOL](#)

US Pat. 3873618 - Jul 18, 1969  
Representative of the compounds disclosed are l-(5-propionamidonaphth-1-yloxy)-3 -t-butylamino-2- **propanol** and l-[4-(4-acetamidophenyl)phenoxy]-3- ...



### [DISUBSTITUTED-L-PROPANOL CAR-](#)

US Pat. 3081341 - Mar 10, 1958 - Sterling Drug Inc  
More particularly, it concerns 3-halo-2,2-disubstitued-l-**propanol** carbamates and their preparation. Carbamates of alkanols are known. ...



### [Z-METHYLAMIBTO-PROPANOL-L](#)

US Pat. 1865880 - Jul 19, 1930  
469265 a process is described for the production of the normal 1- ( paraaminophenyl) -2- methylamino-**propanol-L**. According to the A present invention it has ...



### [2-\(3-Phenoxyphenyl\) propanol](#)

US Pat. 4062895 - Feb 14, 1977 - Eli Lilly and Company  
12, 1977 (54) 2-(3-PHENOXYPHENYL) **PROPANOL** (75) Inventor: Winston S. Marshall, Indianapolis, Ind. (72) Assignee: Eli Lilly and

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US Pat. App 10526760 - Sep 12, 2003  
27, 2006 (54) AMINO-PROPANOL DERIVATIVES Publication Classification (51) Int. Cl . A61K 31/66 (2006.01) A61K 31/137 (2006.01)  
C07F 9/02 (2006.01) (52) US Cl ...



[PRINTING INK COMPRISING PROPANOL](#)  
US Pat. 3034997 - Oct 02, 1959 - Intercaemical Cor  
Primary among these deficiencies was the reactivity of the 1:1 **n-propanol**/ aliphatic hydrocarbon solvent with natural rubber plates and rollers normally used ...

1 2 3 4 5 6 7 8

### ► RSC Databases

### ▼ Medical Subject Headings Classification ? [Print](#)

Descriptor Data [Chemical Classification](#) [Supplemental](#)

**MeSH Heading** [1-Propanol](#)  
**Concept 1 (Preferred)** [1-Propanol](#)  
**Scope Note** A colorless liquid made by oxidation of aliphatic hydrocarbons that is used as a solvent and chemical intermediate.  
**Term** [1-Propanol](#)  
**Term** [n-Propanol](#)  
**Term** [Propanol](#)  
**Term** [Alcohol, Propyl](#)

**Allowable Qualifiers** [ADAEANAIBLCFCSCLDUECHIIMIPMEPKPDPORESTSDTUTOURCHCTAG](#)  
**Registry Number** [71-23-8](#)

### ► Pharmacological Links

http://pubchem.ncbi.nlm.nih.gov/summary/summary.cgi?cid=1031&loc=ec\_rcs

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ChemSpider | Propan-1-ol | ... 24 selected items - PubChe... dabr.co.uk - Error Loading...

NCBI Resources How To

PubChem Compound

Search: PubChem Compound

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Chemical Structures

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## 1-Propanol - Compound Summary (CID 1031)



Loading ..

A colorless liquid made by oxidation of aliphatic hydrocarbons that is used as a solvent and chemical intermediate.

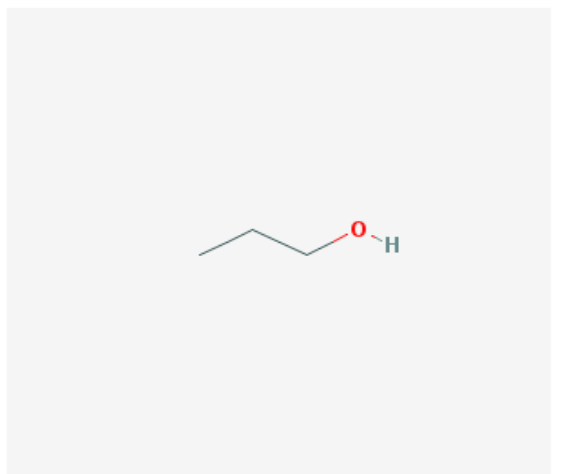
### Table of Contents

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- [Environmental Fate and Exposure Potential](#)
- [Exposure Standards and Regulations](#)
- [Monitoring and Analysis Methods](#)
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2D

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### BioActivity Data Links

- [This Compound](#)
- [with Similar Compounds](#)
- [with Similar Conformers](#)

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### Other Links

- [Protein Structure \(11\)](#)
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- [NLM Toxicology Link 2](#)
- [Chemical Structure Search](#)

### Chemical Vendors

ABBLIS Chemicals

SID 117689353 - External ID: AB1002204

Identification and Related Records

Mixture: 786 records

TCI (Tokyo Chemical Industry)  
SID 87574676 - External ID: P0491

Use and Manufacturing

Biomedical Effects and Toxicity

Absorption, Distribution and Excretion

PROPANOL-1 IS ABSORBED FROM GI TRACT & LUNGS. IT CAN BE ABSORBED FROM THE SKIN IF A SIGNIFICANT AMOUNT IS CONFINED TO THE SKIN. 1-PROPANOL IS ABSORBED MORE READILY THAN ETHANOL. ...

... USING ABDOMINAL AUTOPSY /HUMAN/ SKIN IN A DIFFUSION CHAMBER ... 1-PROPANOL PENETRATED THE SKIN MORE RAPIDLY FROM SOLUTION IN NONPOLAR SOLVENTS SUCH AS ISOPROPYL PALMITATE, OLIVE OIL, & MINERAL OIL THAN FROM SOLUTION IN SALINE.

FOLLOWING AN ORAL DOSE OF 2 G/KG TO RATS, 0.13% OF THE DOSE WAS EXCRETED IN THE URINE. ... 1.65% /WAS/ EXCRETED IN THE EXPIRED AIR & 0.7% EXCRETED IN THE URINE FOLLOWING AN ORAL DOSE OF 2 ML/KG TO RABBITS.

Urine was analyzed immediately, 1, 2, 8, and 9 hr after drinking (during 2 hr) 3.75 ml/kg of beverages containing orange juice, 15 or 40% ethanol, and 1 g/l of 1-propanol, 2-propanol, 1-butanol, 2-butanol, isobutyl alcohol or a mixture of 1-propanol & isobutyl alcohol. Maximum urine levels /in mg/l/ were found 1 hr after drinking ended: 1-propanol 5.04, 2-propanol 3.36, 1-butanol 0.43, 2-butanol 2.55, isobutyl alcohol ... 1.7-2.03 mg/l. Urine treatment with beta-glucuronidase before analysis indicated that significant amounts of the alcohols were excreted as glucuronides, esp isobutyl alcohol. 2-Propanol and 2-butanol were the slowest to be metabolized. When mixtures of alcohols were given, the concentrations of isobutyl alcohol glucuronides were high with the mixtures containing 5 and 15% ethanol, and decreased at 40% ethanol.

from HSDB

Metabolism/Metabolites

... PROPANOL ... MAY FORM ETHEREAL ... /SULFATE/

1-PROPANOL IS METABOLIZED BY THE ENZYME ALCOHOL DEHYDROGENASE. IT IS READILY OXIDIZED IN THE BODY, FIRST TO PROPIONIC ACID AND THEN TO CARBON DIOXIDE, WATER AND PERHAPS A SMALL AMOUNT OF LACTIC ACID.

... HEPATIC MICROSOMES CATALYZED THE OXIDATION OF PROPANOL TO ITS ALDEHYDE IN THE RAT. THE REACTION REQUIRED OXYGEN & NICOTINAMIDE-ADENINE DINUCLEOTIDE PHOSPHATE, WAS INHIBITED BY CARBON DIOXIDE AND ACTED INDEPENDENTLY OF CATALASE & ALCOHOL DEHYDROGENASE.

Cytochrome p450 isozyme 3a, isolated from hepatic microsomes of rabbits treated chronically with ethyl alcohol, had a unique substrate specificity when compared with isozymes 2, 3b, 3c, and 4. Form 3a has unusually high activity in the p-hydroxylation of aniline and in the oxidation of alcohols to aldehydes. Isozyme 3a catalyzes the oxidation of methyl alcohol, propyl alcohol, and butanol as well as ethyl alcohol. [Morgan ET et al; J Biol Chem 257 (23): 13951-7 (1982)]

[PubMed Abstract](#)

**Kesimpulan :**

**kombinasi antara MarvinSketch dengan web pages database dapat digunakan secara efektif untuk mencari sifat-sifat dari senyawa yang pada akhirnya nanti akan memberikan informasi yang berharga bagi kita**





**SEKIAN DAN TERIMA KASIH**

