

DAFTAR PUSTAKA

- Acid, Benzoic. 1832. "Benzoic Acid 1." 3.
- Airgas. 2020. "Safety Data Sheet Oxygen." *Material Safety Data Sheet* (1): 1–11. https://us.vwr.com/assetsvc/asset/en_US/id/16490607/contents.
- Aqar, Dhia Y., Nejat Rahmanian, and Iqbal M. Mujtaba. 2017. "Feasibility of Integrated Batch Reactive Distillation Columns for the Optimal Synthesis of Ethyl Benzoate." *Chemical Engineering and Processing: Process Intensification* 122: 10–20. <http://dx.doi.org/10.1016/j.cep.2017.08.012>.
- Asphyxiants, Simple. 2019. "Safety Data Sheet: Nitrogen." *Airgas* (1272): 1–11. <https://www.airgas.com/msds/001040.pdf>.
- Bp, Darocur et al. 2005. "Safety Data Sheet Safety Data Sheet." *Carbon* 1173(i): 1–8.
- BPS. 2016. "Buletin Statistik Perdagangan Luar Negeri Agustus 2017." *Badan Pusat Statistik* (December): 284.
- Chenier, Philip J. 2002. Survey of Industrial Chemistry *Derivatives of Ethylene*.
- Gizli, Ali, Gülin Aytimur, Erden Alpay, and Süheyda Atalay. 2008. "Catalytic Liquid-Phase Oxidation of Toluene to Benzoic Acid." *Chemical Engineering and Technology* 31(3): 409–16.
- Graydon, F. 1961. "VaporPhase Of Vanadium." : 1959–62.
- Gündüz, Gönül, and Oğuz Akpolat. 1990. "Catalytic Vapor-Phase Oxidation of Toluene to Benzaldehyde." *Industrial and Engineering Chemistry Research* 29(1): 45–48.
- Guo, Can Cheng, Qiang Liu, Xu Tao Wang, and Hai Yang Hu. 2005. "Selective Liquid Phase Oxidation of Toluene with Air." *Applied Catalysis A: General* 282(1–2): 55–59.
- Hemant Borgaonkar, H. V., S. R. Sanjay Raverkar, and S. B. Sampatraj Chandalla. 1984. "Liquid Phase Oxidation of Toluene to Benzaldehyde by Air." *Industrial and Engineering Chemistry Product Research and Development* 23(3): 455–58.
- Ilyas, Mohammad, and Muhammad Saeed. 2010. "Oxidation of Benzyl Alcohol in Liquid Phase Catalyzed by Cobalt Oxide." *International Journal of Chemical Reactor Engineering* 8.
- Kaeding, Warren W., Robert O. Lindblom, R. G. Temple, and H. I. Mahon. 1965. "Oxidation of Toluene and Other Alkylated Aromatic Hydrocarbons to Benzoic Acids and Phenols." *Industrial and Engineering Chemistry Process Design and Development* 4(1): 97–101.
- Kantam, Mannepalli Lakshmi et al. 2002. "An Improved Process for Selective Liquid-Phase Air Oxidation of Toluene." *Catalysis Letters* 81(3–4): 223–32.
- Khan, M. M.Taqui, R. R. Merchant, Debabrata Chatterjee, and K. N. Bhatt. 1991.

“Kinetics and Mechanism of the Stoichiometric Oxidation of Toluene and Benzyl Alcohol by [RuV(O(EDTA))]- and [RuV(O(PDTA))]- Complexes in Water-Dioxan Medium.” *Journal of Molecular Catalysis* 67(3): 309–15.

“KS.”

Kumar, Ashish et al. 2014. “Vapor Phase Oxidation of Benzyl Alcohol over Gold Nanoparticles Supported on Mesoporous TiO₂.” *Catalysis Letters* 144(8): 1450–59.

———. 2016. “Vapor Phase Oxidation of Benzyl Alcohol over Nano Au/SBA-15 Catalysts: Effect of Preparation Methods.” *Catalysis Letters* 146(1): 35–46.

LabChem. 2014. “Toluene Safety Data Sheet.” *Material Safety Data Sheet* 77(58): 1–10. www.labchem.com.

———. 2018. “Sulfuric Acid, ACS.” *Safety Data Sheet* 77(58): 1–9. <http://www.labchem.com/tools/msds/msds/LC25550.pdf>.

———. 2020. “Water Safety Data Sheet.” *LabChem* 4(2): 8–10. <http://www.labchem.com/tools/msds/msds/LC26750.pdf>.

Lee, Ming Jer, Pei Lin Chou, and Ho Mu Lin. 2005. “Kinetics of Synthesis and Hydrolysis of Ethyl Benzoate over Amberlyst 39.” *Industrial and Engineering Chemistry Research* 44(4): 725–32.

Lemoine, Romain, Arsam Behkish, and Badie I. Morsi. 2004. “Hydrodynamic and Mass-Transfer Characteristics in Organic Liquid Mixtures in a Large-Scale Bubble Column Reactor for the Toluene Oxidation Process.” *Industrial and Engineering Chemistry Research* 43(19): 6195–6212.

Lermontov, S. A., and L. L. Ushakova. 2008. “Transesterification and Esterification with Subcritical Methanol. Synthesis of Biodiesel.” *Russian Chemical Bulletin* 57(1): 105–7.

Li, Min et al. 2017. “Highly Efficient Single Atom Cobalt Catalyst for Selective Oxidation of Alcohols.” *Applied Catalysis A: General* 543: 61–66. <http://dx.doi.org/10.1016/j.apcata.2017.06.018>.

Li, Wang, Qingjun Zhang, and Aiwu Zeng. 2019. “Kinetics and Mechanism Modeling of Liquid-Phase Toluene Oxidation to Benzaldehyde Catalyzed by Mn–Mo Oxide.” *Transactions of Tianjin University* 25(1): 52–65. <https://doi.org/10.1007/s12209-018-0146-6>.

Mandal, P. K., D. K. Chatterjee, B. K. Seal, and A. S. Basu. 1978. “Viscosity Behavior of Benzoic Acid and Benzoate Ion in Aqueous Solution.” *Journal of Solution Chemistry* 7(1): 57–62.

McKetta, John J. 1983. *Encyclopedia Chemical Process and Design*.

Mohamed, M. A., S. A. Halawy, and M. M. Ebrahim. 1994. “The Non-Isothermal Decomposition of Cobalt Acetate Tetrahydrate - A Kinetic and Thermodynamic Study.” *Journal of Thermal Analysis* 41(2–3): 387–404.

- NEWITT, D. M. 1946. "The Chemical Process Industries." *Nature* 158(4008): 251–52.
- O’Kelly, Peter. 2013. "Thermodynamic and Transport Properties of Materials." *Computer Simulation of Thermal Plant Operations* (12): 51–70.
- Opembe, Naftali N. et al. 2014. "Vapor-Phase Oxidation of Benzyl Alcohol Using Manganese Oxide Octahedral Molecular Sieves (OMS-2)." *Industrial and Engineering Chemistry Research* 53(49): 19044–51.
- Parks, W George, J Kat, Rhode Island, and State College. "Vapor-Phase Catalytic Oxidation of Organic Compounds." (4).
- Pipus, G., I. Plazl, and T. Koloini. 2000. "Esterification of Benzoic Acid in Microwave Tubular Flow Reactor." *Chemical Engineering Journal* 76(3): 239–45.
- Pretreatment, Surface. 2001. "Section 1 : Chemical Product and Company Identification Section 2 : Composition , Information on Ingredients Section 3: Hazards Identification Section 4 : First Aid Measures." (ii): 1–7.
- Ragupathi, C. et al. 2015. "Highly Selective Oxidation of Benzyl Alcohol to Benzaldehyde with Hydrogen Peroxide by Cobalt Aluminate Catalysis: A Comparison of Conventional and Microwave Methods." *Ceramics International* 41(2): 2069–80.
<http://dx.doi.org/10.1016/j.ceramint.2014.10.002>.
- Roy, P. K. et al. 2006. "Study on the Degradation of Low-Density Polyethylene in the Presence of Cobalt Stearate and Benzil." *Journal of Applied Polymer Science* 99(1): 236–43.
- Satrio, J. A.B., and L. K. Doraiswamy. 2001. "Production of Benzaldehyde: A Case Study in a Possible Industrial Application of Phase-Transfer Catalysis." *Chemical Engineering Journal* 82(1–3): 43–56.
- Sigma-Aldrich. 2020. "Ethyl Alcohol Safety Data Sheet." 77(58): 1–10.
- Soda, Minoru et al. 1995. "T (K) T (K)." 798(1989): 2–7.
- Stull, Daniel R. 1947. "Vapor Pressure of Pure Substances. Organic and Inorganic Compounds." *Industrial & Engineering Chemistry* 39(4): 517–40.
- Sudareva, N. N., and E. V. Chubarova. 2006. "Time-Dependent Conversion of Benzyl Alcohol to Benzaldehyde and Benzoic Acid in Aqueous Solutions." *Journal of Pharmaceutical and Biomedical Analysis* 41(4): 1380–85.
- Tajti, Ádám, Nóra Tóth, Erika Bálint, and György Keglevich. 2018. "Esterification of Benzoic Acid in a Continuous Flow Microwave Reactor." *Journal of Flow Chemistry* 8(1): 11–19.
- Tan, Pinghua, Shengwei Tang, and Bin Liang. 2010. "Kinetic Models for Liquid-Phase Catalytic Oxidation of Toluene to Benzoic Acid with Pure Oxygen." *Chemical Engineering Communications* 197(7): 953–62.

Tang, Shaokun, and Shufen Li. 2004. "Study on the Synthesis of Benzoic Acid Esters by Transesterification of Crude Methyl Benzoate." *Industrial and Engineering Chemistry Research* 43(22): 6931–34.

Tang, Shengwei, and Bin Liang. 2007. "Kinetics of the Liquid-Phase Oxidation of Toluene by Air." *Industrial and Engineering Chemistry Research* 46(20): 6442–48.

Thanigaiselvan, R., T. Sree Renga Raja, and R. Karthik. 2015. 10 *Journal of Electrical Engineering and Technology Investigations on Eco Friendly Insulating Fluids from Rapeseed and Pongamia Pinnata Oils for Power Transformer Applications.*



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