Penilaian Risiko Pajanan Uap Bahan Kimia Terhadap Pekerja laboratorium Kimia di Divisi Pelumas PT. PS Tahun 2015 = Exposure Risk Assessment of Chemical Vapor Hazard to Laboratory Worker at Lubricant Division of PT. PS in 2015

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Abstrak

Pelarut organik umumnya digunakan oleh laboratorium kimia untuk keperluan analisis sampel dan merupakan salah satu bahaya kimia yang potensial yang dapat memajani pekerja di laboratorium itu. Dalam penelitian ini dilakukan penilaian risiko terhadap uap pelarut organik di suatu laboratorium pelumas berupa toluena, xilena, heksana, dan klorobenzen. Penilaian risiko masing – masing uap plearut tersebut diakukan berdasarkan penilaian tingkat bahaya, tingkat pajanan, dan tingkat risiko beserta kondisi pengendalian yang telah ada sehingga dapat diketahui karakterisasi risikonya. Salah satu langkah untuk mendapatkan data – data tersebut adalah dengan mengetahui besaran pajanan uap pelarut organik terhadap sample pekerja. Hasil analisis menunjukkan bahwa konsentrasi uap pelarut toluena, xilena, heksana, dan klorobenzena yang memajani sampel pekerja masih berada dibawah nilai ambang batas yang direkomendasikan oleh American Confrence of Governmental Industrial Hygienist (ACGIH). Karakteristik risiko pajanan uap pelarut organik toluena dan heksana terhadap seluruh sampel pekerja laboratorium pelumas PT. PS adalah C3; Karakteristik risiko pajanan uap pelarut organik xilena terhadap analis sedimen, analis visco, dan helper laboratorium pelumas PT. PS adalah C3, sedangkan terhadap analis destilasi, flash point, FTIR, PQ Index, TAN, TBN, interpreter, reporting 1 dan reporting 2 berada pada risiko C1; Karakteristik risiko pajanan uap pelarut organik klorobenzena terhadap analis TBN, dan helper laboratorium pelumas PT. PS adalah C3, sedangkan analis destilasi, flash point, FTIR, PQ Index, TAN, visco, interpreter, reporting 1 dan reporting 2 berada pada risiko C1

.....Generally Organic solvent is used by chemical laboratory for sample analysis needed and it is become one of potential chemical hazardous that can expose to laboratory worker. This research is doing risk assessment of organic vapor at lubricant laboratory, ie toluene, xilene, hexane, and chlorobenzene. Risk assessment of those organic vapors is based on hazard rating, exposure rating, risk rating, and observation about mitigation in order to know its risk characterization. One of the steps to know the exposure rating data is knowing magnitude rating of organic vapor which is expose to laboratory worker. The result shows that concentration of toluene, xilene, hexane, and chlorobenzene is still below threshold limit value recommended American Conference of Governmental Industrial Hygienist (ACGIH). Risk characrterization of toluene and hexane exposure to laboratory worker is C3; Risk characrterization of xylene exposure to sediment and visco analyst also helper is C3 while to destilation, flash point, FTIR, PQ Index, TAN, TBN analyst, interpreter, reporting 1 and reporting 2 is C1; Risk characrterization of chlorobenzene exposure to TBN analyst and helper is C3 while to destilation, flash point, FTIR, PQ Index, TAN, sedimen, visco analyst, interpreter, reporting 1 and reporting 2 is C1