

username

LOGIN
[New Account »](#)
[Forgot Password?](#)

Jet Fuels


[Advanced Search »](#)

Ads by Google

[Free Military Records @](#)

Lookup Free Military Records On Anyone Right Now. Takes 5 Seconds!

[Military.GovMilitaryRecor](#)
[US Army - Official Site](#)

Earn \$2,000 when you refer someone to the Army.

Details inside!

[www.army.mil](#)
[US Army Degree Benefits](#)

Take advantage of US Army benefits and earn your degree online

[Online-Education.net/Arn](#)
[Ask a Military Lawyer Now](#)

19 Military Lawyers Are Online! Ask a Question, Get an Answer ASAP.

[Military-Law.JustAnswer.](#)


Terrorism ■ Chemical, Biological and Radiological Warfare

Quantitating the Percutaneous Absorption of Mechanistically Defined Chemical Mixtures

Authors: [Jim E. Riviere](#); [Ronald E. Baynes](#); [Charles Smith](#); NORTH CAROLINA STATE UNIV AT RALEIGH CUTANEOUS PHARMACOLOGY AND TOXICOLOGY CENTER

Abstract: The focus of this research was to assess the percutaneous absorption and cutaneous toxicity of **jet fuels** (Jet A, JP-8, JP-8 +100). The absorption of **jet fuel** hydrocarbons (naphthalene, dodecane, hexadecane) was studied as a function of **jet fuel** type and the presence of individual or all possible combinations of performance additives (DIEGME, 8Q2I, Stadis 450). Percutaneous absorption was investigated using in vitro flow-through diffusion cells containing inert silastic or dermatomed pig (*Sus scrofa*) skin and in isolated perfused porcine skin flaps (IPPSFs). Toxicity was assessed in IPPSFs as well as in human and porcine keratinocyte cell cultures as well as in vivo pigs. All **fuels** produced evidence of skin toxicity and resulted in production and release of the cytokines IL-8 and TNFalpha. Naphthalene absorption was greater than the aliphatic markers, however skin deposition showed the reverse(pattern; both of which were affected by the addition of performance additives.

Limitations: APPROVED FOR PUBLIC RELEASE
Description: Final rept. 15 Nov 1997-14 Nov 2000
Pages: 109
Report Date: 02 FEB 2001
Contract Number: F49620-98-1-0105
Report Number: A956683



Keywords relating to this report:

- ✦ [ALIPHATIC COMPOUNDS](#)
- ✦ [BIOLOGICAL ABSORPTION](#)
- ✦ [CELLS\(BIOLOGY\)](#)
- ✦ [CHEMICAL REACTIONS](#)
- ✦ [CULTURES\(BIOLOGY\)](#)
- ✦ [DODECANE](#)
- ✦ [EPIDERMIS](#)
- ✦ [FUEL ADDITIVES](#)
- ✦ [HEXADECANE](#)
- ✦ [HYDROCARBONS](#)
- ✦ [IN VIVO ANALYSIS](#)
- ✦ [JET ENGINE FUELS](#)
- ✦ [NAPHTHALENES](#)
- ✦ [ORGANOPHOSPHATES](#)
- ✦ [SKIN DISEASES](#)
- ✦ [SWINE](#)
- ✦ [TOXICITY](#)

 Adobe PDF - \$25.95

 Printed Format - \$42.95


Please check the box for the format you wish to order.

[Shipping Terms](#)
[About Electronic Delivery](#)

[Email This Abstract](#)

[« Back to search](#)