VERMONT DEPARTMENT OF HEALTH

N-Methylpyrrolidone

(1-methyl-2-pyrrolidone, NMP)

C₅H₉NO

Summary of Health Effects

N-Methylpyrrolidone (NMP) can affect how baby animals develop. There are also health risks for pregnant women and women of childbearing age who are exposed to high concentrations of NMP.

How is NMP used?

It is used as a solvent, paint stripper, graffiti remover, and to produce pigments, dyes and textiles.^{1,2}

Toxicity: What are its health effects?

California Environmental Protection Agency's Office of Environmental Health Hazard Assessments identified NMP as a developmental toxicant.¹ Animal studies have associated exposure to NMP with reduced birth weights, developmental delays, and impairment of cognitive skills in offspring.^{1,2,3}

In 2015, the Environmental Protection Agency released the final Chemical Risk Assessment for NMP under the Toxic Substances Control Act.⁴ The results show that there are acute and chronic health risks for pregnant women and women of childbearing age who are exposed to paint and coating removal products containing high concentrations of NMP.⁴

Exposure: How can a person come in contact with it?

A person can come in contact with NMP by breathing in contaminated air, eating contaminated food, or from skin contact with consumer products.⁴

The 2014 National Health and Nutrition Examination Survey (NHANES) report did not include data for NMP.

References

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