

***N,N*-Dimethylacetamide**
(CH₃)₂NCOCH₃
[CAS No. 127-19-5]
Reproductive toxicant: Group 2

There are no case reports or epidemiological studies in humans that have clearly shown a positive correlation between occupational exposure to *N,N*-dimethylacetamide (DMAC) and adverse effects on pregnancy. However, many animal studies, by inhalation exposure and by gavage administration, have shown clear evidence of the fetotoxicity and developmental effects of DMAC, including fetal malformation and death in rats¹⁻⁴). Based on this evidence, DMAC is classified as a Group 2 reproductive toxicant.

References

- 1) NIOSH. Registry of toxic effects of chemical substances 1983-1984 supplement, No. 86-103. Cincinnati: DHHS (NIOSH) Publication. 1985; 1, 181
- 2) Solomon HM, Ferenz RL, Kennedy GL Jr., Staples RE. Developmental toxicity of dimethylacetamide by inhalation in the rat. *Fundam Appl Toxicol* 1991; 16, 414-22.
- 3) Okuda H, Takeuchi T, Senoh H, et al. Developmental toxicity induced by inhalation exposure of pregnant rats to *N,N*-dimethylacetamide. *J Occup Health* 2006; 48: 154-60.
- 4) Johannsen FR, Levinskas GJ, Schardein JL. Teratogenic response of dimethylacetamide in rats. *Fundam. Appl. Toxicol* 1987; 9: 550-6.