

CAS 62-75-9

Substance name N-Nitrosodimethylamine (NDMA)

Toxicity

N-Nitrosodimethylamine is classified as a carcinogen by a number of authoritative sources based on animal evidence of liver, kidney and lung tumors after oral, inhalation or injection exposures. Exposure to rodents during pregnancy resulted in tumors in offspring.^{1,2,3,4}

Exposure

Nitrosamines can be formed as process contaminants when carbamate chemicals are used during rubber production.⁵ According to the National Toxicology Program, it is also used as a plasticizer for rubber and acrylonitrile polymers and as a solvent in the fiber and plastics industry.² NDMA has been detected in children's products including silicone and natural rubber baby bottle nipples and pacifiers,^{5,6} balloons,^{7,8,9} and personal care products such as baby shampoo and bath foam.⁹

References

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3. European Commission Joint Research Centre: Institute for Health and Consumer Protection, European chemical Substances Information System <http://ecb.jrc.ec.europa.eu/esis/>.
4. California Office of Environmental Health Hazard Assessment. List of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity. Feb 5, 2010. http://www.oehha.org/prop65/prop65_list/files/P65single020510.pdf.
5. Dutch Inspectorate for Health Protection and Veterinary Public Health (VWA/KvW). Teats and soothers: migration of N-nitrosamines and n-nitrosatable substances and MBT. Report No. NDTOY003/01. June 2002.
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7. Danish Ministry of the Environment. Environmental Protection Agency. Survey of Chemical Substances in Consumer Products, Report No. 89, Analysis of chemical substances in balloons, 2007.
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9. European Commission, Scientific Committee on Consumer Products. Opinion on the presence and release of nitrosamines and nitrosatable compounds from rubber balloons, December 2007. http://ec.europa.eu/health/ph_risk/committees/04_sccp/docs/sccp_o_121.pdf