Honeywell

GENETRON® 141b Blowing Agent

Product Stewardship Summary December 2007

Chemical Name:	1,1-Dichloro-1-fluoroethane
Synonyms:	HCFC-141b; R-141b; HFA-141b; Ethane, 1,1-dichloro-1-fluoro; dichlorofluoroethane
CAS Number:	1717-00-6
CAS Name:	Ethane, 1,1-dichloro-1-fluoro
EC (EINECS) Number:	404-080-1

- Genetron® 141b (HCFC-141b) is used as a blowing agent in the industrial manufacture of polyurethane, polyisocyanate and thermoplastic insulating foams.

- HCFC-141b is a High Production Volume (HPV) chemical produced at over 1,000,000 pounds annually. Honeywell has sponsored this chemical under the EPA HPV Challenge Program and the Organisation for Economic Co-operation and Development's HPV Programme. The OECD SIDS Initial Assessment Report was completed in 2001.

- Workplace exposure limits have been established for HCFC-141b. Please see the MSDS for additional information. During use in rigid foam insulation products, HCFC-141b is intended to remain trapped within the insulation, thus increasing the foam's insulating effects. The half-life of HCFC-141b in foam is estimated to be 100 years.

- HCFC-141b is a colorless, non-flammable volatile liquid hydrochlorofluorocarbon. It does not have a flash point.

- HCFC-141b is significantly less ozone-depleting than chlorofluorocarbons (CFC), but is a global warming substance.

- HCFC-141b is practically non-toxic. It is not allergenic. Short-term exposure to high levels of HCFC-141b can induce cardiac sensitization and therefore it should be used in accordance with recommended practices.

- Animals exhibited no serious effects upon repeated exposure to HCFC-141b. In a two generation study on rats, adverse effects on reproduction occurred only when the rats breathed high concentrations of HCFC-141b. The no observed effect level (NOEL) for reproductive effects was 8000ppm, a level much higher than typical exposures to HCFC-141b during use.

- Male rats developed an increase in the frequency of benign testicular interstitial cell tumors, a tumor common in older rats and rare in humans, when repeatedly exposed over their lifetime to high concentrations of HCFC-141b. These types of tumors in rats rarely become malignant.

This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of all health and safety information. Additional information on the chemical is available through the applicable Material Safety Data Sheet which should be consulted before use of the chemical. The product stewardship summary does not supplant or replace required regulatory and/or legal communication documents. Statements concerning use of our products are made without warranty that any such use is free of patent infringement and are not recommendations to infringe any patent.

The risk of human males developing the same tumors if they routinely come into contact with HCFC-141b is low. The overall cancer risk for HCFC-141b is low.

- Although practically non-biodegradable, HCFC-141b is unlikely to impact the aquatic environment because of its high volatility and low toxicity to aquatic organisms. It will migrate almost exclusively to the atmosphere where it is expected to have a lifetime of 10.8 years.

- HCFC-141b is not likely to accumulate in the bodies of humans or animals.

- For more information, send an e-mail to ProductRiskInformation@honeywell.com. Additional information may also be found at the following links:

  Fluorocarbons.org
  Acute Exposure Guideline Levels
  The European Centre for Ecotoxicology and Toxicology of Chemicals
  OECD SIDS Initial Assessment Report