The following tests are performed using Laboratory Rats:

Acute Oral Toxicity:
Food is withheld from the animals overnight prior to the day of dosing. Dosages are calculated based upon body weight. The test substance is administered by gavage as a single dose, with dose volumes not to exceed 20 ml/kg body weight for aqueous preparations, and 10 ml/kg body weight for nonaqueous preparations. Animals are observed by certified Laboratory Animal Technicians. Animals may experience distress and pain associated with administration and the toxicity of the test article.

Number of Animals used in this study type: 679
Species of Animals used in this study type: *Rattus norvegicus*
Test Guidelines:
The protocol was designed based upon its acceptability according to: US-EPA-OPPTS , Health Effects Test Guidelines, OPPTS 870.1100, August, 1998
OECD Guideline for Testing of Chemicals, Section 4, Guideline 402, February 1987

Acute Inhalation Toxicity Study
Evaluation of inhalable material during a 4-hour exposure and a 14-day post-exposure period. Animals experience restraint in plastic tubes which allow for nose-only exposure to inhalable material. Drugs are not used due to their possible effect upon respiration rate.
5-Day Repeated Inhalation Toxicity Study
Evaluation of inhalable material during a daily 6-hour exposure for 5 consecutive days. Animals experience restraint in plastic tubes which allow for nose-only exposure to inhalable material. Drugs are not used due to their possible effect upon respiration rate.

Number of Animals used in this study type: 316
Species of Animals used in this study type: *Rattus norvegicus*
Test Guidelines:
The protocol was designed based upon its acceptability according to:US-EPA-OPPTS , Health Effects Test Guidelines, OPPTS 870.1300, August, 1998
OECD Guideline for Testing of Chemicals, Section 4, Guideline 403, February 1987

Acute Dermal Toxicity
Animals' backs are clipped free of hair. The test substance is applied to a pad equal to 10 per cent of the rat's body surface area, which is then applied to the clipped area. The patch forms an occlusive seal. The animal is then wrapped with bandages to ensure adherence of the patch. Each application is left on for at least 24 hours. Elizabethan collars may be used to prevent ingestion of the test substance. Animals are observed for signs of irritation. Animals experience distress from the wrapping, as well as irritation depending upon the test compound. Corrosive or caustic agents are not tested.

Number of Animals used in this study type: 680
Species of Animals used in this study type: *Rattus norvegicus*
Test Guidelines:
The protocol was designed based upon its acceptability according to:US-EPA-OPPTS , Health Effects Test Guidelines, OPPTS 870.1200, August, 1998
OECD Guideline for Testing of Chemicals, Section 4, Guideline 402, February 1987

Acute Oral Neurotoxicity Screening
Food is withheld from the animals overnight prior to the day of dosing. Dosages are calculated based upon body weight. The test substance is administered by gavage as a single dose, with dose volumes not to exceed 20 ml/kg body weight for aqueous preparations, and 10 ml/kg body weight for nonaqueous preparations. Animals are observed for neurobehavioral signs by certified Laboratory Animal Technicians. Animals may experience short-term distress and pain associated with the administration and toxicity of the test article. Drugs would influence the behavior of animals engaged in the study.
Acute Dermal Neurotoxicity Screening
Animals' backs are clipped free of hair. The test substance is applied by pipette in a single dose to a area equal to 10 per cent of the rat's body surface area. Animals are observed for signs of neurotoxicity. Animals experience short-term distress from the shaving, as well as possible irritation, depending upon the test compound. Corrosive or caustic agents are not tested.

Number of Animals used in this study type: 1218
Species of Animals used in this study type: *Rattus norvegicus*
Test Guidelines:
The neurotoxicity protocols were designed based upon their acceptability according to:US-EPA-OPPTS , Health Effects Test Guidelines, OPPTS 870.6200, August, 1998
OECD Guideline for Testing of Chemicals, Section 4, Guideline 424, March 1997