**Experiment Number:** S0373
**Route:** IV, Gavage
**Species/Strain:** Rats

**Toxicokinetics Data Summary**
**Compound:** Pyridine/ **Analyte:** Pyridine
**CAS Number:** 110-86-1

**Request Date:** 7/11/2023
**Request Time:** 10:03:16
**Lab:** CEDRA

**Male**

| | Treatment Group (mg/kg) | | |
|---|---|---|---|
| | **0.5 IV Plasma** | **2.5 IV Plasma** | **5.0 IV Plasma[d]** |
| Cmax_obs (ng/mL) | 499 ± 51 | 3433 ± 205 | 6313 ± 294 |
| Tmax_obs (minute) | 5 | 5 | 5 |
| Half-life (hour) | 0.3 | 1.1 | 1.7 |
| Cl (mL/h*kg) | 2185 | 387 | 253 |
| Vss (mL/kg) | 792 | 557 | 690 |
| MRT (hour) | 0.4 | 1.4 | 2.7 |
| AUCinf_pred (ng*h/mL) | 229 | 6461 | 19741 |

**Experiment Number:** S0373
**Route:** IV, Gavage
**Species/Strain:** Rats

**Toxicokinetics Data Summary**
**Compound:** Pyridine/ **Analyte:** Pyridine
**CAS Number:** 110-86-1

**Request Date:** 7/11/2023
**Request Time:** 10:03:16
**Lab:** CEDRA

**Male**

**Treatment Group (mg/kg)**

| | 5 Gavage Plasma[a] | 25 Gavage Plasma[b] | 100 Gavage Plasma[c] |
|---|---|---|---|
| | **No Parameters calculated** | **No Parameters calculated** | **No Parameters calculated** |
| Cmax_obs (ng/mL) | | | |
| Tmax_obs (minute) | | | |
| Half-life (hour) | | | |
| Cl (mL/h*kg) | | | |
| Vss (mL/kg) | | | |
| MRT (hour) | | | |
| AUCinf_pred (ng*h/mL) | | | |

LEGEND

MODELING SOFTWARE

PCNONLIN

MODELING METHOD & BEST FIT MODEL

[a] Due to inconsistent results it was not possible to draw pharmacokinetic conclusions from these data.

[b] Due to limited and inconsistent data it was not possible to draw meaningful pharmacokinetic conclusions.

[c] Due to limited data it was not possible to draw meaningful pharmacokinetic conclusions.

EXCEPTIONS

[d] Secondary Cmax of 574 (SD 160) ng/mL at 8 hours. AUC calculation without 5 hour time point which had concentrations above the LOQ

ANALYTE

Pyridine

TK PARAMETERS

Cmax_obs = Observed or Predicted Maximum plasma (or tissue) concentration
Tmax_obs = Time at which Cmax predicted or observed occurs
Half-life = Lambda z Half life, t 1/2, the terminal elimination half-life based on non-compartmental analysis
Cl = Clearance, includes total clearance
Vss = Volume of distribution at steady state
MRT = Mean residence time
AUCinf_pred = Area under the plasma concentration versus time curve, AUC, extrapolated to time equals infinity

TK PARAMETERS PROTOCOL

ANALYSIS METHOD
Lower limit of quantitation is 40.0 ng/mL.

TK_IV PLASMA

0.5 mg/kg, 5.0 mg/kg

Two blood samples at different times were collected from each dosed rat via alternating orbital sinuses. 8 time points with 3 animals bled at each time point.

2.5 mg/kg

Two blood samples at different times were collected from each dosed rat via alternating orbital sinuses. 6 time points with 3 animals bled at each time point.

TK PARAMETERS PROTOCOL (cont'd)

ANALYSIS METHOD
Lower limit of quantitation is 40.0 ng/mL.

TK_GAVAGE

5 mg/kg

Two blood samples at different times were collected from each dosed rat via alternating orbital sinuses 2 timepoints with 3 animals bled at each time point.

25 mg/kg
Two blood samples at different times were collected from each dosed rat via alternating orbital sinuses. 6 time points with 3 animals bled at each time point.

100 mg/kg
Two blood samples at different times were collected from each dosed rat via alternating orbital sinuses. 6 timepoints with 3 animals bled at each time point.