TEST REPORT

Report №.:	**ZDAE2200170 Eb**
Sample Name:	**Gold Lixiviant**
Customer :	**Shandong Sino-Gold Mining and Metallurgy Co.,Ltd**
Contact Informatio	**Block C, Qingdao Expert Academician Entrepreneurship and Innovation Park, No. 600 Jiushui East Road, Laoshan District, Qingdao, Shandong**

Test Type: ☑Submitted by Customer ☐Sampling by NACC

Authorized signatory: 唐[illegible]文 **Date for Reporting:** 2022-11-04

Institute of Analysis, Guangdong Academy of Sciences(China National Analytical Center,Guangzhou)

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Address: B2 Building B Zone, Jingyue road No. 6, Zhongshan, China, 528437

Consulting Hotline: (0760)89969681 Fax: (0760)89969681

Complaints hotline: (008620)87686086, 87656074

E-mail: animal@fenxi.com.cn Website: http://www.fenxi.com.cn

TEST REPORT

Report №.: ZDAE2200170 Eb

Sample Name:	Gold Lixiviant	Sample Quantity:	100 g
Sample Appearance:	powder	Specifications:	/
Test Category:	Consignment Inspection	Production Date and Sample Lot №./Batch №.:	/
Customer:	Shandong Sino-Gold Mining and Metallurgy Co.,Ltd	Address:	Block C, Qingdao Expert Academician Entrepreneurship and Innovation Park, No. 600 Jiushui East Road, Laoshan District, Qingdao, Shandong
Manufacturer:	/	Address:	/

The above samples and information are provided and confirmed by the client, which NACC undertakes no responsibility to verify the accuracy, appropriateness and completeness of that provided by the client.

Date of Sample Received:	2022-10-14	Test Completion Date:	2022-11-04

Item(s): Acute oral toxicity test

Basis: GB/T 21603-2008'chemical, acute oral toxicity test method'

Summary of Results:

№.	Item	Result
1	Acute oral toxicity test	The acute oral toxicity test application software package (AOT425 StatPgm) was used to calculate the LD_{50} = 2471 mg / kg (partial response dose), with a 95 % confidence interval of 1750 mg / kg-2800 mg / kg.
Remarks: Details showed on attachment file (P.4-5).		

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Report №.: ZDAE2200170 Eb

Sample Name:	Gold Lixiviant	Date of Sample Received:	2022-10-14
Item(s):	Acute oral toxicity test	Test Completion Date:	2022-11-04

1 Sample

Sample name Gold Lixiviant, powder. The sample was prepared into a suspension with 1 % sodium carboxymethyl cellulose solution as the test substance

2 Test animals in this experiment

11 SPF KM mice, male, weighing 20~22 g, were provided by Zhuhai Bes Test Bio-Tech Co.,Ltd (Laboratory animal production permit No. SCXK(Yue)2020-0051), and the purchase order number was 20220029.

3 Experimental conditions

Our Laboratory animal production permit number is SYXK(Yue)2019-0201. Mice were raised in IVC cages in barrier environment, 5 mice per cage. The facility temperature was between 20°C to 26°C, and the humidity was between 40% to 70%. The feed was provided by Xie Tong Biology Co., Ltd (Feed production permit No. Su Si Zheng(2019)01008).

4 Method

According to GB/T 21603-2008"chemical, acute oral toxicity test method" ,Up-and-down-procedure was adopted. The first animal is dosed a step below the best preliminary estimate of the LD50. If the animal survives, the second animal receives a higher dose. If the first animal dies or appears moribund, the second animal receives a lower dose.Using the progression of 0.2 , doses would be selected from the sequence 175 mg/kg、280 mg/kg、440 mg/kg、700 mg/kg、1100 mg/kg、1750 mg/kg、2800 mg/kg. The toxic manifestation, death number and death time of the animals were recorded. The dead animals and the animals killed at the end of the observation period were anatomized and observed with naked eyes. Observation period of 14 days. LD_{50} and confidence limit were calculated according to the observation results.

5 Results

See Table 1 Acute Toxicity test record sheet.

(accounts carried forward)

Table 1 Acute Toxicity test record sheet

Animal number	Animal Sex	Dosage (mg/kg)	Animal weight (g)			Route of administration	Poisoning symptom	Time of onset and disappearance of toxic symptoms	Time of death	Anatomical observation	LD_{50} 95% confidence interval
			administration	Day seven	dissecting						
1	male	5000	20	/	20	Oral administration	Died after administration.	Died after administration.	Died after administration.	No obvious abnormality	The acute oral toxicity test application software package (AOT425 StatPgm) was used to calculate the LD50 = 2471 mg / kg (partial response dose), with a 95 % confidence interval of 1750 mg / kg-2800 mg / kg.
2	male	175	22	27	32		No obvious abnormality	/	/	No obvious abnormality	
3	male	280	22	28	34		No obvious abnormality	/	/	No obvious abnormality	
4	male	440	20	28	33		No obvious abnormality	/	/	No obvious abnormality	
5	male	700	21	26	33		No obvious abnormality	/	/	No obvious abnormality	
6	male	1100	20	27	31		No obvious abnormality	/	/	No obvious abnormality	
7	male	1750	20	27	32		No obvious abnormality	/	/	No obvious abnormality	
8	male	2800	20	/	20		Activity decreased after administration.	Symptoms appear immediately after administration.	30min	No obvious abnormality	
9	male	1750	20	26	30		No obvious abnormality	/	/	No obvious abnormality	
10	male	2800	22	/	22		Activity decreased after administration.	Symptoms appear immediately after administration.	30min	No obvious abnormality	
11	male	1750	21	26	32		No obvious abnormality	/	/	No obvious abnormality	