

FINAL REPORT

Study Title: Acute Inhalation Toxicity Study in Rats with Tembotrione 35g/L +Atrazine 200g/L OD

Study No.: S213460931

Study Director: Sun Lei

Sponsor

EASTCHEM Co., Ltd.

Floor 26, Haoyuan Mansion, NO.266, Middle Tongjiang Road, Changzhou,
Jiangsu, China

Test Facility



Liaoning Qianyi Testing and Evaluation Technology Development Co., Ltd.
No. 136 Xianghuai Road, Ecohome Technological Development Area of Benxi,
Liaoning Province, China.

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SIGNATURE PAGE

Study Director

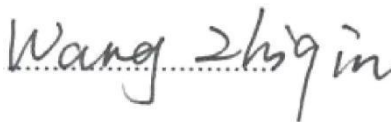
Sun Lei



Date: 2021.9.22

Test Facility Management

Wang Zhiqin



Date: 2021.9.22

GLP COMPLIANCE STATEMENT

STUDY TITLE Acute Inhalation Toxicity Study in Rats with Tembotrione 35g/L
 +Atrazine 200g/L OD

STUDY NO. S213460931

SPONSOR EASTCHEM Co., Ltd.

This study was conducted under my guidance in accordance with the NY/T718-2003 Good Laboratory Practice for Toxicological Safety Evaluation of Pesticides issued by the Ministry of Agriculture on December 1, 2003 and implemented on March 1, 2004.

This study was conducted in accordance with the GB15670-1995 Toxicological Test Method for Pesticide Registration approved by the State Bureau of Technical Supervision on August 17, 1995 and implemented on January 1, 1996. The report faithfully and accurately reflects the results of the test.

Study Director

Sun Lei



Date: 2021.9.22

QUALITY ASSURANCE STATEMENT

STUDY TITLE Acute Inhalation Toxicity Study in Rats with Tembotrione 35g/L
+Atrazine 200g/L OD

STUDY NO. S213460931

SPONSOR EASTCHEM Co., Ltd.

The Quality Assurance Unit (QAU) inspected/reviewed this study in accordance with the following GLP (Good Laboratory Practice) regulations:

Good Laboratory Practice for Toxicological Safety Evaluation of Pesticides (NY/T 718-2003), Ministry of Agriculture of the People's Republic of China (MOA).

QAU reviewed the report, which stated the test materials and methods, and the results truly reflected the original data.

Item of Audit	Date of Inspection	Date of Reporting
Draft Study Plan	2021-03-13	2021-03-13
Supplementary Study Plan	2021-06-26	2021-06-26
Weigh*	2021-07-21	2021-07-21
Preparation of test products*	2021-07-22	2021-07-22
Administration*	2021-07-31	2021-07-31
Critical Phase Inspection*	2021-07-31	2021-07-31
Zootomy*	2021-08-14	2021-08-14
Raw data and Final Study Report	2021-09-19	2021-09-19

Note: * Indicates the procedure - based check item

All the inspection results are accurate reflections of the performances of the study phases. The test report represents accurate descriptions of the test method, test procedure and observation results. The results audited are accurate reflections of the raw data.

Study Director

Zhang Tianlong

Zhang Tianlong
Date: 2021.9.20

SUMMARY

Introduction

The purpose of this experiment is to study the damage of the test product provided by the client to the respiratory tract and the whole body after it enters the body through the respiratory tract and the degree of harm, and to obtain the median lethal concentration (LC50) of inhalation exposure, so as to provide a basis for its safety evaluation and development of protective measures in production.

Method

The limited method was used in this experiment. SD rats (5 males and 5 females) were exposed to the aerosol environment of the test subject with a design concentration of 2000 mg/m² for 2h. The whole-body exposure method was used for dynamic poisoning, concentration determination (filter weighing method) and particle size analysis were performed. The parameters of the instrument (temperature, relative humidity, oxygen concentration, intake volume), operation conditions, concentration and particle size measurements were recorded every hour during administration, and the clinical symptoms of the animals were observed. Clinical observation was performed once a day after administration for 14 consecutive days, and the clinical symptoms and death of the animals were observed and recorded. The animals were weighed before administration, every 7 days after administration, and before dissection. At the end of the experiment, all animals were euthanized and gross anatomical observation was performed, and histopathological examination should be performed for lesions found in gross examination. According to the toxic reaction and death of the animals, LC₅₀ was obtained and toxicity classification was performed.

Results

The mean aerosol concentration: 2012.5 mg/m³.

Mortality/ viability observation: No animal died during the test.

Clinical symptoms of animals after administration: No obvious abnormal clinical symptoms

were found in animals after administration.

Body weight: The average body weight on the 7th and 14th day after exposure showed an upward trend.

Gross anatomical examination: No abnormality

Histopathological examination: No histopathological examination is required.

Conclusion

Under the experimental conditions:

The median lethal concentration (LC_{50}) of systemic exposure to inhalation toxicity was greater than 2000 mg/m^3 in both female and male SD rats.

According to the grading standard of acute inhalation toxicity test of pesticides, the acute inhalation toxicity of Tembotrione 35g/L +Atrazine 200g/L OD was low toxicity to both male and female SD rats.

1 GENERAL

1.1 Study title and study No.

Study Title: Acute inhalation Toxicity Study in Rats with Tembotrione 35g/L +Atrazine 200g/L OD

Study No.: S213460931

1.2 Objective

The purpose of this experiment was to study the damage of the test product provided by the client to the respiratory tract and the whole body after entering the body through the respiratory tract and the degree of harm, and to obtain the LC_{50} of inhalation exposure, so as to provide a basis for safety evaluation and development of protective measures in production.

1.3 Specifications and guidance documents to follow

1.3.1 GLP

This study was conducted under my guidance in accordance with the NY/T718-2003 Good Laboratory Practice for Toxicological Safety Evaluation of Pesticides issued by the Ministry of Agriculture on December 1, 2003 and implemented on March 1, 2004.

1.3.2 Test instruction

This study was conducted in accordance with the GB15670-1995 Toxicological Test Method for Pesticide Registration approved by the State Bureau of Technical Supervision on August 17, 1995 and implemented on January 1, 1996. The report faithfully and accurately reflects the results of the test.

1.4 Animal welfare

Animal use complied with national animal welfare laws and regulations "Instructive Notions with Respect to Caring for Laboratory Animals" (2006, PRC Ministry of Science). The animal care and use activities required for conduct of this study are reviewed and approved by the test facility Animal Care and Use Committee (IACUC).

1.5 Test facility

Name: Liaoning Qianyi Testing and Evaluation Technology Development Co., Ltd.

Address: No.136 Xianghuai Road, Economic-Technological Development Area of Benxi, Liaoning Province, China.

Test Facility Management: Wang Zhiqin

Tel: 024-47505200

1.6 Sponsor

Sponsor: EASTCHEM Co., Ltd.

Address: Floor 26, Haoyuan Mansion, NO.266, Middle Tongjiang Road, Changzhou, Jiangsu, China

Tel: 86-519-68786677

1.7 Key personnel

Experiment Operators: Ma Jie, Sun Jian, Huang Jianhua

Test item Administers: Tang Fengyang

Histopathology Examination: Wang Yan

Archivist: Lu Sibao

Veterinarian: Zhou Lili

1.8 Quality assurance

QA Manager: Zhang Tianlong

Address: No.136 Xianghuai Road, Economic-Technological Development Area of Benxi, Liaoning Province, China.

Tel: 86-24-47505280

The test plan, test implementation, raw data and final report are all supervised and reviewed by the Quality Assurance Department (QAU) of the institution. Conduct periodic inspections of certain operations or processes in the conduct of the study in accordance with the requirements of the relevant SOPs of the Institution. The quality Assurance Department will issue a quality assurance statement in the final report.

1.9 Test protocol changes and deviations

Reasons should be given for the change of the test plan, and the change should be signed and dated by the person in charge of the subject, the person in charge of quality assurance and the person in charge of the institution.

The subject leader shall describe and explain the deviation from the test protocol in order, confirm and date it. The material shall be kept together with the original data.

1.10 Proposed schedule

Study Initiation date: 2021-06-29

Experimental starting date: 2021-07-19

Experimental completion date: 2021-08-07

Final report date: 2021-09-22

2 Materials

2.1 Test item

2.1.1 Test item information

Name: Tembotrione 35g/L +Atrazine 200g/L OD

Batch No.: 20201220

Content: Tembotrione 35g/L , Atrazine 200g/L

Type of formulation: Oil-based suspension concentrates

Physical condition: Off-white liquid

Expiry date: 2022-12-20

Storage condition: Room temperature (10-30°C)

Stability: Stable under storage conditions

Safety precautions: Wear overalls, gloves and masks

Supplied by: EASTCHEM Co., Ltd.

2.1.2 Preparation of test item

300.00g Tembotrione 35g/L +Atrazine 200g/L OD is mixed with 300.01g test water at 1:1 to

form a suspension.

2.1.3 Test product analysis

There is no need for sample analysis in this experiment.

2.1.4 Sample retention for test products

Sample retention: 10.00g

Responsible department for sample retention: Sample Department

2.1.5 Surplus test item disposal

The residual test item after study indicated by sponsor, any residual test item was disposed totally.

2.2 Solvent

Name: Test water

Physical condition: Colorless clear liquid

Storage condition: Room temperature

Stability: Stable under storage conditions

Batch No.: 20210724

Expiry date: Use it now and then.

2.3 Test system

2.3.1 Test animal information

Species and Strain: Sprague Dawley Rats

Grade: SPF

Total number and sex: 10(half male and half female)

Age: 7-8 weeks

Body weight: Male, 284.9-299.1g; Female, 218.9-233.8g

Source: Liaoning Changsheng Biological Technology Co., Ltd.

Treatment of animals: No group remaining animals.

2.3.2 Reasons for the selection of test system

The test guidelines recommend the use of rats, and this line of animals at home and abroad have abundant research background data, so the SD rats were selected for the study of acute

oral toxicity test in rats.

2.3.3 Selection of experimental animals

Early adult Sprague Dawley rats with clear strain and genetic background were selected. The body weight of male and female rats did not exceed 20% of the average body weight of the same sex at the beginning of administration.

2.3.4 Identification and marking of animals

During quarantine and adaptive breeding, animals are provisionally numbered with numbers written directly on their tails. Animal numbers are marked at different locations with animal coloring pens during formal testing. During the test, each animal has a unique animal number. At the same time, the animal cage card is hung on the corresponding animal cage. The cage card contains the special number, animal number and other information. The color of cage card is white.

2.3.5 Quarantine and adaptive feeding

All animals underwent quarantine and adaptive feeding for 10 days, and qualified animals were used for testing.

2.3.6 Cage

Animals are raised in plastic rat boxes (size L42cm×W27cm×H20cm). Female and male animals were kept in cages, and the feeding density of each cage was 5 animals per cage during quarantine adaptation period and drug administration period.

2.3.7 Environmental conditions

Rom No.: A2006

Photo period: 12h light and 12h dark

Air change times: ≥ 15 times /h

Temperature: 22.7-24.8°C

Humidity: 35.9-70.1% RH

Maximum daily temperature difference range: $<4^{\circ}\text{C}$

2.3.8 Diet

Type of feed: Rat full nutritive solid feed

Feed lot number: 20210601

Manufacturer: Beijing Keaoxieli Feed Co., Ltd.

Storage conditions: Store in special feed room, keep low temperature, dry, hygienic

Feeding method: continuous supply, unlimited free intake

Feed testing: Each batch of feed shall have the quality certificate provided by the manufacturer, and the regular nutrient composition index, chemical pollutant index and microbial index shall be tested once a year by a qualified third-party professional testing unit.

Feed test results: All tested items were qualified, and the test results were stored at our laboratory.

2.3.9 Drinking

Type of drinking water: reverse osmosis water

Water supply method: uninterrupted water supply free intake

Water quality test: Test once every quarter

Water quality test results: All the tested items were qualified, and the test results were stored at our laboratory.

2.4 Main test instrument

2.4.1 Main Instrument

Name	Type	Manufacturer
Inhalation poisoning system	HOPE-MED 8050D	Tianjin Development Zone Hepu Industry and Trade Co., LTD
Electronic scales	T1000	Changshu Shuangjie test Instrument factory
Electronic scales	AL204	Mettler
Microscope,	XSP-2C	Shanghai Guangmi Instrument Co., LTD
Atmospheric sampler	QC-4S explosion proof type	Beijing Institute of Labor Protection Science

3 Experiment design

3.1 Group and dose

10 healthy adult SD rats, half male and half female, were selected. The specific group and dose information were as follows:

Group	Test product	Dose (mg/kg)	Sex	Amount	Animals No.
1	Tembotrione 35g/L	2000	♂	5	1101-1105
	+Atrazine 200g/L OD		♀	5	2106-2110

3.2 Reasons for dose design

The information was obtained by reference search, and according to GB 15670-1995 Toxicological test Method for pesticide registration, the limited method was used to conduct the test, and the aerosol concentration of 2000 mg/m³ was continuously administered.

3.3 Information about administration

3.3.1 Information about administration

Administration route: Whole-body exposure inhalation

Frequency and duration of administration: Single dose, the single dose was applied continuously for 2 h.

Flow rate of administration: The prepared test product was pumped into the aerosol generator at a flow rate of 4 mL/min for 2 h.

Process of administration: Continuous stirring for administration.

3.3.2 Reasons for the selection of route, frequency and duration of administration

According to the requirements of 《GB 15670-1995 Toxicological Test Method for pesticide Registration》.

3.4 Detection frequency and methods of various indicators

Monitoring parameter	Detection method	Permissible range
Intake flow rate (m/h)	Equipment inspection	/
Actual concentration (mg/m ²)	Weighing method	80-120%

Particle size distribution (μm)	Microscopy	90%<4 μm
Temperature ($^{\circ}\text{C}$)	Equipment inspection	22-26
Relative humidity (%)	Equipment inspection	40-70
Oxygen concentration (%)	Equipment inspection	≥ 19

In this experiment, Hop-MED 8050 D inhalation poisoning system produced by Tianjin Hopp Company was used to infect rats, and the parameters of the whole process were controlled.

The prepared test products are continuously pumped into the aerosol generator built into the top of the inhalation cabinet, and the compressed air generated by the compressor is continuously pumped into the aerosol generator (the pressure is controlled at 3.5-4.0kgf/cm²) to atomize the liquid.

During pesticide administration, a single cage with a size of 20cm×10cm×10cm will be placed in the poison belt of the poison cabinet of the inhalation poison device (the volume of which is 0.6m³). Atomized gas generated by the aerosol generating device will continue to pass through the poison belt, and all animals will be administered with whole-body exposure inhalation. After the gas passes through the breathing zone of the animal, the aerosol enters the waste gas treatment device of the poisoning device, and the waste gas is treated through the filtration treatment system. See Appendix 1 for the schematic diagram of whole-body exposure inhalation poisoning process.

During the test, the inhalant poisoning system will conduct real-time monitoring on parameters such as intake volume, temperature of poisoning cabinet, relative humidity and oxygen concentration, and record twice after the beginning and before the end of poisoning.

Detailed monitoring results are shown in Table 6 in Schedule I.

3.4.1 Concentration detection

The filtration membrane weighing method was used for concentration detection. The method was as follows: before sampling, the filtration membrane weight M1 was weighed, fixed on the sampling head, connected to the sampler, and the flow rate, sampling time and collection volume V were set. After sampling, the weight M2 of the filter membrane was weighed and the sampling mass M was calculated, $M = M2 - M1$. Actual concentration $C(\text{mg}/\text{m}^3) =$

(sampling mass M / sampling volume $V \times 1000 \text{L/m}^3$) $\times$ dilution percentage of test product.

3.4.2 Particle Size detection

The method of microscopy is as follows:

➤ Calibration of eyepiece micrometer

Unscrew the upper lens of the eyepiece, gently load the eyepiece micrometer scale downward onto the bulkhead of the eyepiece, and place the micrometer scale of the eyepiece table on the loading platform with the scale facing upward. First observe with a low-power lens, align the focal length, and see the scale of the micrometer on the mirror table in the visual field, rotate the eyepiece, make the scale of the eyepiece micrometer parallel to the scale of the micrometer on the mirror table, move the thruster, make the two scales overlap, and then make the "0" scale of the two feet completely coincide. After positioning, carefully look for the second fully coincide scale of the two feet. Count the number of eyepiece micrometer and the number of mirror micrometer between two overlapping scales. Since the length of each square of the microscope micrometer is 10 microns, the length of each square of the eyepiece micrometer can be calculated accordingly. When replacing an eyepiece or objective with a different magnification, the length represented by each cell of the eyepiece micrometer must be recalibrated. Calculation: The length represented by each cell of the eyepiece micrometer - the number of cells of the eyepiece micrometer $\times$ the length of each cell of the eyepiece micrometer.

➤ Collection of measured particles

Hold one end of the slide with tweezers, put the slide into the poison cabinet in parallel from the sampling hole, and pull it out for 10s to 15s to form a thin layer of mist particles on the surface of the slide for microscopic examination.

➤ Determination of particle size

Turn on the power and turn on the microscope. The whole smear is first observed at low power. The area with good smear distribution was selected for microscopic examination. The diameter of 100 particles is measured under the mirror, and the percentage of each particle diameter is calculated according to its diameter size.

3.4.3 Clinical signs

During the experiment, the toxic reaction and death of animals were observed and recorded.

During administration, observation should be made every hour, parameters and equipment operation at each observation time point should be monitored, and clinical manifestations and survival of each animal should be observed and recorded.

After administration, the clinical symptoms of the administered animals were observed and recorded in detail once a day, and the clinical reactions and death or dying conditions of the animals were observed continuously for 14 days. Comprehensively observe and record changes in animal fur, eyes and mucous membranes, respiratory system, circulatory system, nervous system, especially changes in limb movement and behavior.

3.4.2 Body weights

Animals were weighed every 7 days before administration and during observation period.

3.4.3 Histopathology

At the end of the experiment, all animals were euthanized and gross anatomical observation was performed. No histopathological examination or biochemical index examination was performed in this experiment. Euthanasia was carried out by inhaling excess CO₂.

4 Data processing

Data was processed using Microsoft Excel 2013 software. The data is summarized in tabular form, showing the animal's weight, animal deaths and mortality during the test, and recording the animal's toxic symptoms. LC₅₀ of the test product was obtained according to the toxic reaction and death of the animals, and toxicity classification was performed according to the classification standard of acute inhalation toxicity of pesticides.

Toxicity grading standards for pesticide products

Toxicity grading	LC ₅₀ (mg/m ³)
Highly toxic	<20
High toxicity	20-200

Moderate toxicity	200-2000
Low toxicity	2000-5000
Slight toxicity	>5000

5 Archiving

After filing, the following information shall be kept in the Archives Department of the institution for a period of at least 5 years from the date of registration:

Test scheme;

All raw data;

Electronic file;

Final report, etc.

In addition, the sample can be stored for 5 years after archiving or until the test product fails.

The data saved shall be returned to the principal within the specified time limit. If the Principal needs to extend the retention time, the Principal and the Agency shall decide the specific matters through consultation.

6 Changes and deviations

No changes related to the test scheme have occurred in this study, and the deviations are as follows:

Scheme stipulation	Actual situation	Evaluation
Humidity range: 40-70%RH	Humidity range: 35.9-70.1%RH	No effect

7 Result

7.1 Concentration detection and particle size detection

Average measured concentration: 2012.5mg/m³

The results of concentration detection and granule distribution are shown in Table 1 and Table 2 in Schedule I, respectively.

7.2 Monitoring parameters in the poison cabinet

The results of monitoring parameters in the poison cabinet are shown in Table 6 in Schedule I.

7.3 Clinical observation

Death of male and female rats: No animal deaths were observed during the test.

Clinical symptoms of animals after administration: No obvious abnormal clinical symptoms were found in animals after administration.

The mortality and clinical observation results of the animals were shown in Table 3 and Table 4 of Schedule I.

7.4 Body weights

Animal weight and weight changes: Average body weight increased on days 7th and 14th after exposure.

The data of animal body weight and body weight change are shown in Table 5 in Schedule I.

7.5 Histopathology

Gross anatomical examination: No abnormality

Histopathological examination: No histopathological examination is required.

8 Conclusion

Under the experimental conditions:

The median lethal concentration (LC₅₀) of systemic exposure to inhalation toxicity was greater than 2000 mg/m³ in both female and male SD rats.

According to the grading standard of acute inhalation toxicity test of pesticides:

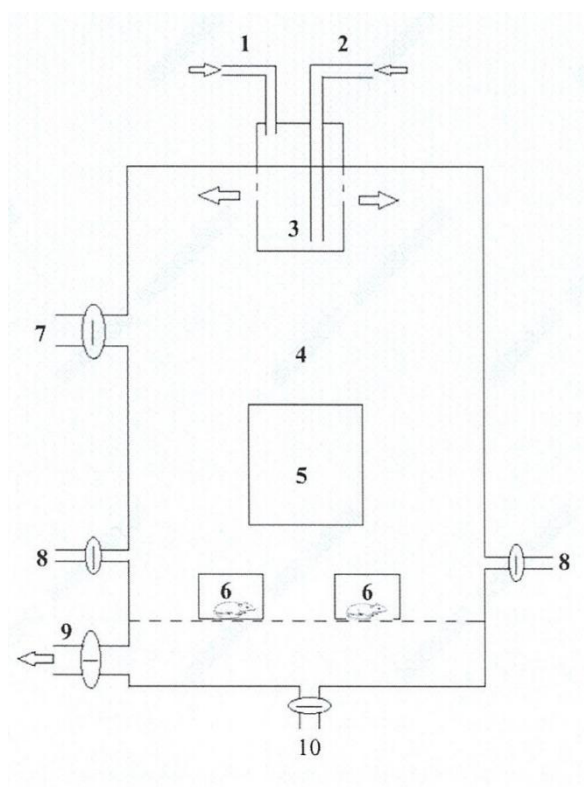
The acute inhalation toxicity of Tembotrione 35g/L +Atrazine 200g/L OD was low toxicity to both male and female SD rats.

9 References

- 1) GB 15670-1995 Toxicological test methods for pesticide registration State Bureau of Technical Supervision. Approved on August 17, 1995.1.1 implemented.
- 2) NY/T 718-2003 Good Laboratory Practice for Toxicological Safety Evaluation of pesticides, Ministry of Agriculture of the People's Republic of China. Issued on December 1, 2003, implemented on March 1, 2004.

10 Appendix

10.1 Appendix I Schematic diagram of whole-body exposure inhalation poisoning process



Explanation:

1: liquid intake pipe
2: mixed air intake pipe
3: atomizing device
4: Poison cabinet
5: Door of poison cabinet

6: Squirrel cage
7: pure air intake pipe
8: sampling port
9: air outlet line
10: waste liquid outlet

10.2 Annexed table

Table 1 Concentration meter

Design concentration (mg/m ³)	Sample 1(mg/m ³)	Sample 2(mg/m ³)	Average concentration(mg/m ³)	SD (mg/m ³)
2000	2010	2015	2012.5	3.54
Deviation (%)	0.5	0.8	-	-

Note: Deviation (%) = (sample concentration - design concentration)/design concentration ×100%; "-" indicates no data.

Table 2 Particle Size Distribution

Concentration (mg/m ³)	≤4μm (%)	4μm<d≤10μm (%)	10μm<d≤15μm (%)	15μm<d≤20μm (%)	>20μm (%)	mean particle size (μm)	SD (μm)
2000 Sample 1	100	0	0	0	0	1.57	0.66
Sample 2	100	0	0	0	0	1.57	0.69
Mean						1.57	0.68

Table 3 Death distribution

Concentration (mg/m ³)	Sex	No. of animals	Time of death distribution														Mortality (%)
			0	1	2	3	4	5	6	8	9	10	11	12	13	14	
2000	♂	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	♀	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

Note: "-" indicates that no animals have died.

Table 4 Clinical signs

Concentration (mg/m ³)	Animals ID	Clinical signs													
		0	1	2	3	4	5	6	8	9	10	11	12	13	14
2000	1101	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1102	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1103	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1104	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1105	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2106	-	-	-	-	-	-	-	-	-	-	-	-	-	-

2107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: "-" indicates no abnormal animal symptoms.

Table 5 Body weight data

Group	Sex	Animals ID	Body weight (g)			Weight gain (g)
			D0	D7	D14	D14- D0
1	♂	1101	299.1	342.8	387.7	88.6
		1102	284.9	330.2	396.9	112.0
		1103	298.7	351.6	390.1	91.4
		1104	297.7	344.3	381.1	83.4
		1105	297.8	339.7	387.4	89.6
		Mean	295.6	341.7	388.6	93.0
		SD	6.0	7.8	5.7	9.9
	♀	2106	233.8	267.5	296.1	62.3
		2107	218.9	243.2	268.7	49.8
		2108	226.7	251.6	277.7	51.0
		2109	225.	265.8	290.4	65.4

2110	228.4	259.3	269.9	41.5
Mean	226.8	257.5	280.6	54.0
SD	5.4	10.1	12.3	8.7

Table 6 Exposure Chamber Parameters Monitoring

Group	Concentration (mg/m ³)	Monitoring time	Temperature (°C)	Relative humidity (%)	Oxygen concentration (%)	Air inflow (m ³ /h)
1	2000	10:53	23.0	60.7	20.8	6.01
		11:53	23.1	64.8	20.8	6.07
		Mean	23.1	62.8	20.8	6.04

11 Qualification certificate



China National Accreditation Service for Conformity Assessment

GLP Compliance Statement

(Registration No. CNAS GLP0011)

**Liaoning Qianyi Testing and Evaluation Technology
Development Co., Ltd.**

No.136, Xianghuai Road, Economic-Technological Development Area of
Benxi, Liaoning, China

*is inspected to Principles of Good Laboratory Practice (GLP)
published by Organisation for Economic Co-operation and
Development (OECD) for the study expertise listed in the appendix to
this statement, which bears the same registration number as above.
The appendix forms an integral part of this statement.*

Effective Date: 2019-09-29

Expiry Date: 2022-09-28

Date of Initial Accreditation: 2016-09-30

Signed on behalf of China National Accreditation Service for Conformity Assessment



China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is a member of the International Laboratory Accreditation Cooperation (ILAC) and the Asia Pacific Accreditation Cooperation (APAC).
The validity of the certificate can be checked on CNAS website at <http://www.cnas.org.cn/english/findanaccreditedbody/index.shtml>.