



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 1886.354-2021

**National Food Safety Standard - Food Additive -
3-[(4-Amino-2,2-dioxo-1H-2,1,3-benzothiadiazine-5-yl)oxy]-2,2-di
methyl-N-propyl propionamide**

Issued on: August 4, 2021

Implemented on: February 4, 2022

**Issued by: National Health Commission;
State Administration for Market Regulation**

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1 Scope

This Standard applies to the food additive

3-[(4-Amino-2,2-dioxo-1H-2,1,3-benzothiadiazine-5-yl)oxy]-2,2-dimethyl-N-propyl propionamide prepared by chemical reaction with 3-hydroxy-2,2-dimethylpropionic acid, propylamine, 2-amino-6-fluorobenzonitrile and sulfamoyl chloride as raw materials.

2 Chemical name, molecular formula, structural

formula, and relative molecular mass

2.1 Chemical name

3-[(4-Amino-2,2-dioxo-1H-2,1,3-benzothiadiazine-5-yl)oxy]-2,2-dimethyl-N-propyl propionamide

2.2 Molecular formula

C₁₅H₂₂N₄O₄S

2.4 Relative molecular mass

354.42 (according to 2018 international relative atomic mass)

Appendix A Determination of content of

3-[(4-Amino-2,2-dioxo-1H-2,1,3-

benzothiadiazine-5-yl)oxy]-2,2-dimethyl-N-propyl propionamide A.1 Reagents and materials

A.1.1 Formic acid: Chromatographically pure.

A.1.1.1 0.1% formic acid solution: Pipette 1.00 mL of formic acid (A.1.1) into a 1000 mL

volumetric flask; add water (A.1.3) to dilute to make up to volume and shake well.

A.1.1.2 0.5% formic acid solution: Pipette 5.00 mL of formic acid (A.1.1) into a 1000 mL volumetric flask; add water (A.1.3) to dilute to make up to volume and shake well.

A.1.2 Acetonitrile: Chromatographically pure.

A.1.3 Water: Grade 1 water specified in GB/T 6682.

A.1.4 Reference substance of

3-[(4-Amino-2,2-dioxo-1H-2,1,3-benzothiadiazine-5-yl)oxy]-2,2-dimethyl-N-propyl propionamide: Purity $\geq 99.0\%$.

A.2 Apparatus Ultra-high performance liquid chromatograph: Equipped with diode array detector.

A.3 Reference chromatographic conditions A.3.1 Chromatographic column: C18 liquid chromatographic column; length is 100 mm; inner diameter is 4.6 mm; particle size is 3.5 μm ; or other equivalent chromatographic columns.

A.3.2 Mobile phase: It consists of 0.1% formic acid solution (A.1.1.1) and acetonitrile (A.1.2) in a volume ratio of 8:2.

A.3.3 Column temperature: 25 $^{\circ}\text{C}$.

A.3.4 Flow rate: 1.0 mL/min.

A.3.5 Injection volume: 1 μL .

A.3.6 Detection wavelength: 230 nm.