Chinastandards.org

CCS X 09

NATIONAL STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

GB 5009.191-2024

National food safety standards--Determination of chloropropanol and its fatty acid esters and glycidyl esters in food

食品安全国家标准食品 中氯丙醇及其脂肪酸酯、缩水甘油酯的测定

(English Translation)

Issued on: February 8, 2024

Issued by: National Health Commission of the People's Republic of China, State Administration for Market Regulation

Preview: page 1 of 5 shown, 24 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-5009-191-2024

Chinastandards.org

Table of Contents

1 Scope
2 Principle
3 Reagents and materials
3.1 Reagents
3.2 Reagent preparation
3.3 Standard substances
3.4 Preparation of standard solution
3.4.1 Chloropropanol standard solution
4 Instruments and apparatus
5 Analytical procedure
6 Expression of analysis results
7 Precision
8 Others
9 Principle

1 Foreword

GB 5009.191-2024 was issued by National Health Commission of the People's Republic of China, State Administration for Market Regulation on 8 February 2024.

It is one of 185 parts of the GB 5009 series.

2 Scope

Volume I of this standard specifies the determination of chloropropanol in foods. Volume II of this standard specifies the determination of chloropropanol fatty acid ester and glycidyl ester in foods. Volume I is applicable to the determination of 3-chloro-1, 2-propanediol (3-MCPD), 2-chloro-1, 3-propanediol (2-MCPD), 1, 3-dichloro-2-propanol (1, 3-DCP) and 2, 3-dichloro-1-propanol (2, 3-DCP) in condiments containing acid hydrolyzed vegetable protein, meat and meat products, and formula foods for infants and young children. Methods I and II in Volume II are suitable for the determination of 3-chloro-1, 2-propanediol ester (3-MCPDE), 2-chloro-1, 3-propanediol ester (2-MCPDE) and glycidyl ester (GE) in oils and fats and their products, formula foods for infant and young children, milk and dairy products, aquatic animals and their products, meat and meat products, puffed food, baked food and fried food. Method III is suitable for the determination of 3-MCPDE, 2-MCPDE and GE in oils and fats and their products. Volume I Determination of chloropropanol content in

Preview: page 2 of 5 shown, 24 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-5009-191-2024

foods - Isotope dilution - Gas chromatography-mass spectrometry

3 About this standard

Issued by: National Health Commission of the People's Republic of China, State Administration for Market Regulation

English translation: about 24 pages

Chinese original: about 36,386 characters

4 Related standards

Other parts of this standard:

GB 5009.1-2025 - National food safety standard - Physical and chemical testing - General principles

GB 5009.2-2024 - National food safety standard - Determination of relative density of food

GB 5009.3-2016 - National food safety standard - Determination of Moisture Content in Foods

GB 5009.4-2016 - National food safety standard - Determination of Ash in Foods

GB 5009.5-2025 - National food safety standard - Determination of protein in foods

GB 5009.6-2025 - National food safety standard - Determination of fat in foods

GB 5009.7-2016 - National food safety standard - Determination of reducing sugar in foods

GB 5009.8-2023 - National food safety standard - Determination of fructose, glucose, sucrose, maltose and lactose in foods

GB 5009.9-2023 - National food safety standard - Determination of starch in foods

GB 5009.11-2024 - National food safety standard - Determination of total arsenic and inorganic arsenic in food

GB 5009.12-2023 - National food safety standard - Determination of lead in foods

GB 5009.13-2017 - National food safety standard - Determination of copper in foods

GB 5009.14-2017 - National food safety standard - Determination of Zinc in Foods

GB 5009.15-2023 - National food safety standard - Determination of cadmium in foods

GB 5009.16-2023 - National food safety standard - Determination of tin in foods

GB 5009.17-2021 - Determination of total mercury and organic-mercury in foods

GB 5009.18-2025 - National food safety standard - Determination of fluorine in foods

Preview: page 3 of 5 shown, 24 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-5009-191-2024

GB 5009.22-2016 - National food safety standard - B-group and G-group aflatoxins in foods

GB 5009.24-2016 - National food safety standard - Determination of M Aflatoxins in Foods

GB 5009.25-2016 - National food safety standard - Determination of Sterigmatocystin in Food

GB 5009.26-2023 - National food safety standard - Determination of N-nitrosamines in foods

GB 5009.27-2016 - National food safety standard - Determination of Benzo(a)Pyrene in Foods

GB 5009.28-2016 - National food safety standard - Determination of Benzoic Acid, Sorbic Acid and Saccharin Sodium in Foods

GB 5009.31-2025 - National food safety standard - Determination of p-hydroxybenzoic acid esters in foods

GB 5009.32-2016 - Determination of propyl gallate in oils and fats

GB 5009.33-2025 - National food safety standard - Determination of nitrite and nitrate in foods

GB 5009.34-2022 - National food safety standard - Determination of sulfur dioxide in foods

GB 5009.35-2023 - National food safety standard - Determination of synthetic colour in foods

GB 5009.36-2023 - National food safety standard - Determination of Cyanide in Foods

GB 5009.42-2016 - National food safety standard - Determination of Table Salt Index

GB 5009.42-2025 - National food safety standard - Determination of the indices of edible salt

GB 5009.43-2016 - National Food Safety Standard -- Determination of sodium glutamate in monosodium glutamate

GB 5009.43-2023 - National Food Safety Standard Determination of Monodium Glutamate in MSG

GB 5009.44-2016 - National food safety standard Determination of chloride in foods

GB 5009.74-2014 - National Food Safety Standard -- Method for Limit Test of Heavy Metals in Food Additives

GB 5009.75-2014 - National food safety standard - Determination of Lead in Food Additives

GB 5009.76-2014 - National food safety standard - Determination of arsenic in food Additives

Preview: page 4 of 5 shown, 24 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-5009-191-2024

GB 5009.82-2016 - National Food Safety Standard Determination of vitamin A, D, E in food

GB 5009.83-2016 - National food safety standard - Determination of carotene in foods

GB 5009.84-2016 - National food safety standard - Determination of vitamin B1 in foods

GB 5009.85-2016 - National food safety standard - Determination of vitamin B2 in foods

GB 5009.86-2025 - National food safety standard - Determination of ascorbic acid in food

GB 5009.87-2016 - National food safety standard - Determination of Phosphorus in Foods

GB 5009.88-2023 - National food safety standard - Determination of dietary fiber in foods

GB 5009.89-2023 - National food safety standard - Determination of niacin and niacinamide in foods

GB 5009.90-2016 - National food safety standard - Determination of iron in foods

GB 5009.91-2017 - National food safety standard - Determination of potassium and sodium in foods

GB 5009.92-2016 - National food safety standard - Determination of calcium in foods

GB 5009.93-2017 - National food safety standard - Determination of selenium in foods

GB 5009.94-2012 - Determination of rare earth elements in plant food

GB 5009.96-2016 - Determination of ochratoxin A in food -- High performance liquid chromatographic method with immunoaffinity column clean-up

GB 5009.97-2023 - National food safety standard - Determination of sodium cyclamate in foods

GB 5009.111-2016 - National food safety standard - Determination of deoxynivalenol and its acetylated derivatives in food

GB 5009.118-2016 - National food safety standard - Determination of T-2 toxin in foods

GB 5009.120-2016 - National food safety standard - Determination of Sodium Propionate and Calcium Propionate in Foods

GB 5009.120-2025 - National food safety standard - Determination of propionic acid and its salts in foods

GB 5009.121-2016 - Food safety national standard - Determination of dehydroacetic acid in foods

GB 5009.123-2023 - National food safety standard - Determination of chromium in foods

GB 5009.124-2016 - National food safety standard - Determination of Amino Acid in Foods

GB 5009.128-2016 - National food safety standard - Determination of cholesterol in foods

Preview: page 5 of 5 shown, 24 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-5009-191-2024