Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 7/01/2023
Print Date: 11/09/2026

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	2-BUTYL-3-METHYL PYRAZINE
Product Number	02-65830
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta Fine Ingredients, Inc. 4 Dedrick Place West Caldwell NJ 07006 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, Oral (Category 4)

GHS Label elements, including precautionary statements

Pictogram:

Signal word	Warning
Hazard statement(s)	
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H320	Causes eye irritation
Precautionary statement(s)	
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves, protective clothing, eye and face protection.

P301, P312	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302, P352	IF ON SKIN wash with plenty of soap and water.
P330	Rinse mouth.
P337, P313	If eye irritation persists, get medical attention.
P501	Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation
Eyes	May cause eye irritation.
Ingestion	May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM

Formula	C9 H14 N2		
Molecular Weight	150.22g/mol		
CAS-No	EC-No	Index-No.	Concentration
15987-00-5	240-126-5		

4. FIRST-AID MEASURES

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconsious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid breathing vapours, mist or gas.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Normal measures for preventive fire protection.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	LIQUID
Colour	COLORLESS TO DARK AMBER

Safety data

pH	no data available
Melting point (°C)	no data available
Boiling point (°C)	120
Flash point (°F) Closed cup	>200
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	0.990
Water solubility	INSOLUBLE
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odor	ANISE, SWEET, SUGARY
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid
no data available

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 - no data available
Inhalation LC50 - no data available
Dermal LD50 - no data available

Other information on acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity

IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable. possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
no data available

Teratogenicity
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods.

IMDG
Not dangerous goods.

IATA
Not dangerous goods.

15. REGULATORY INFORMATION

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title Ill, Section 313.

SARA 311/312 Hazards
No SARA hazards

Massachusetts Right To Know Component
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Component
No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right To Know Component
No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause caner, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Penta Fine Ingredients, Inc.

4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

TECHNICAL DATA SHEET

PRODUCT NAME: 2-BUTYL-3-METHYL PYRAZINE		
PRODUCT CODE: 02-65830		
REV DATE: April 5, 2019	**CAS #:** 15987-00-5	**Flavis #:** 14.091
ECHA #: 240-126-5	**Food Grade, Kosher, Halal**	

TEST	SPECIFICATIONS
MOLECULAR FORMULA	C9 H14 N2
MOLECULAR WEIGHT	150.22
APPEARANCE	COLORLESS TO DARK AMBER LIQUID
ASSAY	98.0% MINIMUM
ODOR	ANISE, SWEET, SUGARY
BOILING POINT	120° C
FLASH POINT	200° F
REFRACTIVE INDEX @ 20°C	1.480 - 1.500
SPECIFIC GRAVITY @20°C	0.935 - 0.955
SOLUBILITY	INSOLUBLE IN WATER SOLUBLE IN ALCOHOL

Penta Fine Ingredients, Inc.

4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

ALLERGEN CHECKLIST FOR FOOD SUPPLIERS/MANUFACTURERS

Date:	**Product Code:**	**Manufacturer Location:**
Nov 09, 2026	02-65830	West Caldwell, NJ
Country:	**Product Name:**	**Supplier:**
U.S.A	2-BUTYL-3-METHYL PYRAZINE	PENTA FINE INGREDIENTS, Inc.

The first column indicates the allergens that may be found in the product, either by addition or by cross contamination, The second column indicates the allergens that are present in other products, that are run on the same equipment but at a different time, in our plant. The third column indicates whether any of those ingredients are present in our plant.

1. Please fill in each of square with a Yes or No and applicable the name of an ingredient.

COMPONENT	PRESENT IN THE PRODUCT	SOURCE	PRESENT IN OTHER PRODUCTS MANUFACTURED ON THE SAME LINE	PRESENT IN THE SAME MANUFACTURING PLANT
PEANUTS and peanut products	**NO**		**NO**	**NO**
TREE NUTS	**NO**		**NO**	**NO**
SESAME, SUNFLOWER, POPPY, COTTONSEEDS (except refined oils)	**NO**		**NO**	**NO**
MILK AND DERIVATIVES eg whey, milk, caseninate, etc.	**NO**		**NO**	**NO**
EGGS	**NO**		**NO**	**NO**
Fish and fish products	**NO**		**NO**	**NO**
SHELLFISH	**NO**		**NO**	**NO**
SOY (except refined soy oil)	**NO**		**NO**	**NO**
AUTOLYZED YEAST	**NO**		**NO**	**NO**
CEREAL PROTEINS (include HVP)	**NO**		**NO**	**NO**
FD&C YELLOW 5	**NO**		**NO**	**NO**
SULFITES	**NO**		**NO**	**NO**
CELERY	**NO**		**NO**	**NO**
SEEDS	**NO**		**NO**	**NO**

**** Items are also free from Lupin, Molluscs and products there of, as well as Gluten, Mustard, Wheat or Carmine.

2. Do you have effective procedures to avoid cross-contamination of the product with the allergens not present in the product but noted in columns II and III? **YES**

Lisa A. Amato
Technical Services Manager

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

ANIMAL TESTING CERTIFICATION

Penta Fine Ingredients, Inc. does not perform or commison animal testing on any of its products. All products are manufactured in accordance with Good Manufacturing Practices (GMPs)

Faitma Jasmins
Senior Technical Coordinator

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

DIETARY PREFERENCES & RESTRICTIONS

We hereby declare that the following product:

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Is suitable for consumption by:

LACTO-OVO-VEGETARIANS (Do not eat meat, poultry, fish-seafood, but do eat eggs and dairy products)

LACTO-VEGETARIANS (Do not eat meat, poultry, fish/seafood, eggs, but do eat dairy products)

OVO-VEGETARIANS (Do not eat meat, poultry, fish/seafood, dairy products, but do eat eggs)

VEGANS (Do not eat meat, poultry, fish/seafood, eggs, dairy products or honey)

Faitma Jasmins
Senior Technical Coordinator

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

FOOD GRADE CERTIFICATE

This is to verify that the following listed product purchased from Penta Fine Ingredients, Inc. is food grade quality. This material is allowed for use as a flavor ingredient intended for human consumption, or as an indirect additive acccording to the United States Food and Drug Administration 21 CFR and / or also complies with European 88/388/EEC and 1334/2008/CE Flavorings directive. This material is manufactured in accordance with Good Manufacturing Practices (GMPs).

Lisa A. Amato
Technical Services Manager

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

GMO QUESTIONNAIRE (GENETICALLY MODIFIED ORGANISMS)

Supplier: PENTA FINE INGREDIENTS, Inc.
Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

1. Is this product, or any of its ingredeints that are used in the manufacturing process, derived from any genetically modified material? **NO**
2. Does the final product, or any of its ingredients, contain any genetically modified material? **NO**
3. Was this product irradiated or contain any irradiated ingredients? **NO**
4. Does the product require labeling under EU Regualtions 1829/2003, 1830/2003 and 1820/2003? **NO**
5. Does the product consist of GMOs, Contains GMOs, or is it produced from GMOs as defined in EU 1829/2000 and 1830/2003? **NO**
   Justification certification: **Supplier questionnaire and written certification.**

Faitma Jasmins
Senior Technical Coordinator

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

HEAVY METALS STATEMENT

We confirm that the following material(s) supplied to you by Penta Fine Ingredients, Inc., Conforms to Article 4 of the EEC Flavoring Directive 88/388/EEC and 1334/2008 EC, with regard to heavy metals, namely:

CADMIUM:	MAX 0.2 µg/g
MERCURY:	MAX 0.1 µg/g
ARSENIC:	MAX 0.2 µg/g
LEAD:	MAX 0.5 µg/g

Lisa A. Amato
Technical Services Manager

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

MELAMINE FREE CERTIFICATION

This is to certify the below referenced item purchased from Penta Fine Ingredients, Inc. does not contain nor is it derived from any raw materials that contain Melamine. Also, Melamine is not produced from any manufacturing processes incorporated by Penta Fine Ingredients, Inc.

All products are manufactured in accordance with Good Manufacturing Practices (GMPs) and are F.D.A. approved for use in food and/or cosmetic and/or pharmaceutical products.

Faitma Jasmins
Senior Technical Coordinator

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

PROPOSITION 65 EXEMPT

To the best of our knowledge, the below referenced item does not contain any ingredients listed under the State of California, Proposition 65 Environmental Protection Agency Office of Environmental Health Hazard Assessment Safe Drinking Water and Toxic Enforcement Act Of 1986.

Lisa A. Amato
Technical Services Manager

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

COUNTRY OF EXPORT

We hereby declare that the country of export for the below listed product supplied by Penta Fine Ingredients, Inc. is the U.S.A.

Lisa A. Amato
Technical Services Manager

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

PESTICIDE AND HEAVY METAL DECLARATION

We hereby confirm that the ingredients listed below meet the E.U. regulations as outlined in (EC) 2023/915 in regards to contaminants prohibited in food grade raw material ingredients. The below listed ingredients also comply with the E.U. regulation 396/2005/EC, regarding the maximum residue levels of pesticides in food grade raw material ingredients of plant and animal origin.

Faitma Jasmins
Senior Technical Coordinator

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

IRRADIATION & SEWAGE SLUDGE

We hereby confirm that the ingredient listed below, has not been:

- Exposed to Ionizing Ration
- Derived from Sewage Sludge
- Treated with Ethylene Oxide

Lisa A. Amato
Technical Services Manager

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

LATEX FREE CERTIFICATION

This is to certify the below referenced material purchased from Penta Fine Ingredients, Inc. does not contain nor is it derived from any raw materials that contain Latex.

Also, Latex is not produced from any manufacturing processes incorporated by

Penta Fine Ingredients, Inc.

All products are manufactured in accordance with Good Manufacturing Practices (GMPs) and are F.D.A. approved for use in food and/or cosmetic and/or pharmaceutical products.

Faitma Jasmins
Senior Technical Coordinator

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830

Penta Fine Ingredients, Inc.
4 Dedrick Place West Caldwell, NJ 07006 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

November 9, 2026

PALM OIL FREE CERTIFICATION

This is to verify the below listed product, purchased from Penta Fine Ingredients, Inc. is Palm Oil Free and manufactured in accordance with Good Manufacturing Practices (GMPs). No Palm Oil or Palm Oil Derivatives are used in the manufacturing process.

Lisa A. Amato
Technical Services Manager

Product Name: 2-BUTYL-3-METHYL PYRAZINE
Product Code: 02-65830