



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 9/01/2021

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|-----------------|--|
| Product Name | METHYL DIHYDROJASMONATE HC |
| Product Number | 13-40205 |
| Brand | Penta |
| Identified Uses | Manufacture of substances |
| Company | Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 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)

Skin Corrosion / Irritation (Category 2)

Sensitisation, Skin (Category 1)

Serious Eye Damage / Eye Irritation (Category 2B)

Acute, toxicity, Inhalation (Category 5)

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

| | |
|----------------------------|--|
| H333 | May be harmful if Inhaled |
| Precautionary statement(s) | |
| P102 | Keep out of reach of children. |
| P103 | Read label before use. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| 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. |
| P304, P340 | IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing. |
| P305, P351, P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P311 | Call a POISON CENTER or doctor/physician. |
| P330 | Rinse mouth. |
| P332, P313 | IF SKIN irritation occurs: Get medical advice/attention. |
| P333, P313 | IF SKIN irritation or rash occurs: Get medical advice/attention. |
| P337, P313 | If eye irritation persists, get medical attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P363 | Wash contaminated clothing before reuse. |
| P403, P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |
| P505 | Consult SDS before using material. |

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

SYNONYMS

N/A

| | | | |
|------------------|--------------|-----------|---------------|
| Formula | C13 H22 O3 | | |
| Molecular Weight | 226.31 g/mol | | |
| CAS-No | EC-No | Index-No. | Concentration |
| 24851-98-7 | 246-495-9 | N/A | N/A |

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 unconscious 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 PALE YELLOW |

Safety data

| | |
|---|-------------------|
| pH | no data available |
| Melting point (°C) | no data available |
| Boiling point (°C) | 110 |
| 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) | <0.1 |
| Density @25 °C | 1.000 |
| Water solubility | SLIGHT |
| Partition coefficient: n-octanol/water | no data available |
| Relative vapour density | 7.8 |
| Odor | FLORAL |
| 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 III, 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 cancer, 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.

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TECHNICAL DATA SHEET

| | | |
|---|------------------------------|----------------------------------|
| PRODUCT NAME: METHYL DIHYDROJASMONATE HC | | |
| PRODUCT CODE: 13-40205 | | |
| REV DATE: November 4, 2019 | SHELF LIFE: 24 Months | CAS #: 24851-98-7 |
| FEMA #: 3408 | COE #: 10785 | Flavis #: 09.520 |
| JECFA #: 1898 | ECHA #: 246-495-9 | Food Grade, Kosher, Halal |

| TEST | SPECIFICATIONS |
|----------------------------|--|
| MOLECULAR FORMULA | C ₁₃ H ₂ O ₃ |
| MOLECULAR WEIGHT | 226.31 |
| APPEARANCE | COLORLESS TO PALE YELLOW LIQUID |
| ASSAY (GC; SUM OF ISOMERS) | 95.0% MINIMUM |
| ODOR | FLORAL |
| BOILING POINT | 110° C |
| FLASH POINT | 200+° F |
| REFRACTIVE INDEX @ 20°C | 1.450 - 1.470 |
| SPECIFIC GRAVITY @25°C | 0.990 - 1.010 |
| SOLUBILITY | SLIGHTLY SOLUBLE IN WATER; SOLUBLE IN ETHANOL |



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September 1, 2021

ALLERGEN CHECKLIST FOR FOOD SUPPLIERS / MANUFACTURERS

| | | |
|------------------------------|--|---|
| Date: Sep 01, 2021 | Product Code: 13-40205 | Manufacturer Location: Livingston, NJ |
| Country: U.S.A | Product Name: METHYL DIHYDROJASMONATE HC | Supplier: Penta International Corporation |

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.

| <u>COMPONENT</u> | <u>PRESENT IN THE PRODUCT</u> | <u>SOURCE</u> | <u>PRESENT IN OTHER PRODUCTS MANUFACTURED ON THE SAME LINE</u> | <u>PRESENT IN THE SAME MANUFACTURING PLANT</u> |
|--|-------------------------------|---------------|--|--|
| 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**

Mr. Mark J. Volpe
Quality Control Supervisor



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ANIMAL TESTING CERTIFICATION

No animal testing was performed prior to or after June 20th 2002 and all chemicals and their raw materials comply with Cosmetics Directive 76/768/EC (Directive 2003/15/EC effective from 11 September 2004) and all of its amendments. 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.



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CONTINUING FOOD & DRUG GUARANTY

Penta Manufacturing Company hereby guarantees that each and every article contained in each shipment or other delivery hereafter made by or through us to or on the order of; Penta Manufacturing Company, as of the date of such shipment or delivery to be:

1. Not adulterated or mis-branded within the meaning of the Federal Food, Drug and Cosmetic Act, and not an article which may not, under the provisions of Section 404, 505, or 512 of the Act, be introduced into interstate commerce;
2. Free from any artificial color required to be certified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act unless the artificial color is from a batch that has been certified by the Federal Food and Drug Administration and complies with the provisions of 21 Code of Federal Regulations Parts 70 through 82; and
3. With respect to any flavor supplied by Penta Manufacturing Company which is designated as containing no artificial flavor, said flavor does not, to the best of its knowledge and belief, contain any artificial flavor and Penta Manufacturing Company has added no artificial flavor to it.

Mr. Mark J. Volpe
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DIETARY PREFERENCES & RESTRICTIONS

We hereby declare that the following product:

Product Name: METHYL DIHYDROJASMONATE HC

Product Code: 13-40205

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)

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FOOD GRADE CERTIFICATE

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

A handwritten signature in black ink that reads "Mark J. Volpe".

Mr. Mark J. Volpe
Quality Control Supervisor

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Product Code: 13-40205



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GMO QUESTIONNAIRE (GENETICALLY MODIFIED ORGANISMS)

Supplier: PENTA INTERNATIONAL CORPORATION

Product Name: METHYL DIHYDROJASMONATE HC

Product Code: 13-40205

1. Is this product, or any of its ingredients 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 Regulations 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.

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GRAS CERTIFICATE

This is to certify that the below reference item, purchased from Penta Manufacturing Corporation is GRAS and is approved by the FDA for use in flavors under 21 CFR. This product is manufactured in accordance with Good Manufacturing Practices (GMPs).

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HEAVY METALS STATEMENT

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

CADMIUM: MAX 1mg/kg

MERCURY: MAX 1mg/kg

ARSENIC: MAX 3mg/kg

LEAD: MAX 10mg/kg

A handwritten signature in black ink that reads "Mark J. Volpe".

Mr. Mark J. Volpe
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MELAMINE FREE CERTIFICATION

This is to certify the below referenced item purchased from Penta Manufacturing Corporation 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 Manufacturing Corporation.

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.

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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.

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CERTIFICATE OF ORIGIN

We hereby declare that the country of origin for the below listed product supplied by Penta International Corporation is the U.S.A.

Mr. Mark J. Volpe
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PESTICIDE AND HEAVY METAL DECLARATION

We hereby confirm that the ingredients listed below meet the E.U. regulations as outlined in 1881/2006/EC 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.

A handwritten signature in black ink that reads "Mark J. Volpe".

Mr. Mark J. Volpe
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IRRADIATION & SEWAGE SLUDGE

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

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

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LATEX FREE CERTIFICATION

This is to certify the below referenced material purchased from Penta Manufacturing Corporation 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 Manufacturing Corporation.

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.

Mr. Mark J. Volpe
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PALM OIL FREE CERTIFICATION

This is to verify the below listed product, purchased from Penta Manufacturing Corporation 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.

A handwritten signature in black ink that reads "Mark J. Volpe".

Mr. Mark J. Volpe
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SHELF LIFE

| | | |
|---|----------------------------------|----------------------|
| PRODUCT NAME: METHYL DIHYDROJASMONATE HC | | |
| PRODUCT CODE: 13-40205 | | |
| REV DATE: November 4, 2019 | CAS #: 24851-98-7 | FEMA #: 3408 |
| COE #: 10785 | Flavis #: 09.520 | JECFA #: 1898 |
| ECHA #: 246-495-9 | Food Grade, Kosher, Halal | |

Minimum Shelf Life of the above referenced product will vary depending on Storage Conditions, temperature of storage area, and the type of chemicals the raw material is stored near. We recommend the re-testing of raw material ingredients kept in stock at intervals of 9 to 12 months.

This material has a maximum Shelf Life of 24 Months from the Date of Manufacture when stored under proper storage conditions.

*The maximum shelf life given reflects the time line for studies performed by Penta. It is meant to indicate that after that period of time has elapsed, the customer should re-check the material to validate the quality of the product.

Mr. Mark J. Volpe
Quality Control Supervisor