Product Specification



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

CAS Number: 14901-07-6 **FEMA Number:** 2595

<u>Characteristic:</u> <u>Specification:</u>

Purity % 95.00 100.00

Gas Chromatograph PASSES TEST

Odor WARM, WOODY, DRY ODOR.

Refractive Index (@20c) 1.5170 1.5220 Specific Gravity (@25c) 0.9400 0.9470

Color/appearance COLORLESS TO PALE YELLOW LIQUID.

Additional Product Information:

Flash Point: >200 °F Shelf Life: 36 Months

Storage Conditions: Stable when stored in its original package, tightly sealed in a

cool (46-90°F) and dry location out of direct heat and light.

Effective Date: January 9, 2018

Printed Date: September 8, 2021



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 1 of 12

Version # 03 Print Date: 02-28-2018

1. IDENTIFICATION

Product Description: IONONE BETA NATURAL

CAS # 14901-07-6

FEMA Number 2595

Other means of identification

Vigon Item # 504723

Recommended use Concentrated aromatic and flavor ingredient which may be used in flavor and fragrance

compounds according to legal and IFRA or FEMA GRAS/FDA guidelines.

570-476-6300

Recommended restrictions For Manufacturing Use Only

Company 24 Hour Emergency Response Information

Vigon International, Inc. INFOTRAC (ACCT# 78928);

127 Airport Road 1-800-535-5053 WITHIN THE U.S.A.
E. Stroudsburg, PA 18301 1-352-323-3500 OUTSIDE THE U.S.A.

For information call: 570-476-6300

Web Site: www.vigon.com

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Vigon International, Inc.
Address 127 Airport Road

E. Stroudsburg, PA 18301

United States

Telephone For information call:

Website www.vigon.com
E-mail Not available.

Emergency phone number INFOTRAC (ACCT# 78928);

1-800-535-5053 WITHIN THE U.S.A. 1-352-323-3500 OUTSIDE THE U.S.A.

2. HAZARD(S) IDENTIFICATION

Physical hazards Not classified.

Health hazards Acute toxicity, oral Category 5

Acute toxicity, dermal Category 5
Skin corrosion/irritation Category 3

Category 2

Environmental hazards Hazardous to the aquatic environment,

acute hazard

Hazardous to the aquatic environment, Category 2

long-term hazard



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 2 of 12

Version # 03 Print Date: 02-28-2018

Label elements



Signal word Warning

Hazard statement May be harmful if swallowed or in contact with skin. Causes mild skin irritation. Toxic to aquatic

life. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Avoid release to the environment.

Response Call a POISON CENTER/doctor if you feel unwell. If skin irritation occurs: Get medical

advice/attention. Collect spillage.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information 100% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

| Chemical name | Common name and synonyms | CAS number | % |
|---------------|---|------------|-----|
| IONONE BETA | beta-cyclocitrylidene acetone (E)-4-(2,6,6- trimethyl-1-cyclohexenyl)but-3-en-2-one 4-(2,6,6-Trimethylcyclohex-1-ene-1-yl)-bu t-3-ene-2-one 3-Buten-2-one, 4-(2,6,6-trimethyl-1-cyclohexen-1-yl)- BETA-IONONE | 14901-07-6 | 100 |

4. FIRST-AID MEASURES

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or

persist.

Skin contact Take off immediately all contaminated clothing. Get medical attention if irritation develops and

persists. Wash skin thoroughly with soap and water for several minutes.

Eye contact Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and

persists. Promptly wash eyes with plenty of water while lifting the eye lids.

Ingestion Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if

the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low

so that stomach vomit doesn't enter the lungs.

Most important

symptoms/effects, acute and

delayed

Mild skin irritation.



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 3 of 12

Version # 03 Print Date: 02-28-2018

Indication of immediate medical attention and special treatment

attention and special treatment

General information

Not available.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Unsuitable extinguishing media

Specific hazards arising from the chemical

the chemical

Water spray, fog, CO2, dry chemical, or alcohol resistant foam.

Do not use a solid water stream as it may scatter and spread fire.

Fire may produce irritating, corrosive and/or toxic gases.

Use water spray to cool unopened containers.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.

Specific methods

General fire hazards

Static charges generated by emptying package in or near flammable vapor may cause flash fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Methods and materials for containment and cleaning up

Keep unnecessary personnel away. Avoid contact with skin or inhalation of spillage, dust or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Eliminate all sources of ignition.

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Collect and dispose of spillage as indicated in section 13 of the SDS.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid release to the environment. Retain and dispose of contaminated wash water. Contact local authorities in case of spillage to drain/aquatic environment.



504723 IONONE BETA NATURAL

Page 4 of 12 Revision Date: 02-28-2018

Print Date: 02-28-2018 Version # 03

7. HANDLING AND STORAGE

Precautions for safe handling Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary

> measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged

Keep container closed. Handle containers with care. Open slowly in order to control possible

exposure. Wash thoroughly after handling.

Conditions for safe storage,

including any incompatibilities

pressure release. Store in a cool, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

This substance has no PEL, TLV, or other recommended exposure limit. Occupational exposure limits

Biological limit values No biological exposure limits noted for the ingredient(s).

Use explosion-proof ventilation equipment to stay below exposure limits. Adequate ventilation Appropriate engineering controls

should be provided so that exposure limits are not exceeded.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Chemical resistant gloves.

Other Not available.

Respiratory protection Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must

be provided.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Keep away from food and drink. Always observe good personal hygiene measures, such as

washing after handling the material and before eating, drinking, and/or smoking. Routinely wash

work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Refer to Spec Sheet **Appearance**

Physical state Liquid. Liquid. **Form**

Color Refer to Spec Sheet

Odor Characteristic. Odor threshold Not available. Ηd Not available. Melting point/freezing point -31 °F (-35 °C) Initial boiling point and boiling 512.6 °F (267 °C)

range

> 200.0 °F (> 93.3 °C) Closed Cup DIN EN 22719, ISO 2719 Flash point

Evaporation rate Not available. Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower Not available.

(%)



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 5 of 12

Version # 03 Print Date: 02-28-2018

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 0.02 mm Hg at 25 °C

Vapor density 6.7

Relative density Not available.

Solubility(ies)

Solubility (water) Insoluble

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Explosive properties Not explosive.

Flammability class Combustible IIIB estimated

Molecular formulaC13H20OMolecular weight192.3 g/molOxidizing propertiesNot oxidizing.Specific gravity0.94 at 25 °C

10. STABILITY AND REACTIVITY

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoidAvoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Alkaline metals. Peroxides.

Hazardous decomposition No hazardous decomposition products if stored and handled as indicated.

products

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation No adverse effects due to inhalation are expected.

Skin contact May be harmful in contact with skin. Causes mild skin irritation.

Eye contact Direct contact with eyes may cause temporary irritation. Causes mild eye irritation.

Ingestion May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Mild skin irritation.



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 6 of 12

Version # 03 Print Date: 02-28-2018

Information on toxicological effects

Acute toxicity May be harmful in contact with skin. May be harmful if swallowed.

Product Species Test Results

IONONE BETA (CAS 14901-07-6)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg The product has not been

tested. The statement has been derived from substances/products of a similar

structure or composition.

Oral

LD50 Rat > 4000 mg/kg

Skin corrosion/irritation Causes mild skin irritation.

Species: rabbit Result: non-irritant

Method: OECD Guideline 404

Serious eye damage/eye

irritation

Direct contact with eyes may cause temporary irritation.

Species: rabbit Result: non-irritant

Method: OECD Guideline 405

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization Freund's complete adjuvant test (FCA)

Species: guinea pig Result: Non-sensitizing Method: OECD Guideline 406

Germ cell mutagenicity Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation - negative

Genotoxicity in vivo - mouse - male - Intraperitoneal - negative

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not available.

Reproductive toxicity Reproductive toxicity - Hamster - Oral

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total

number of implants).

Specific target organ toxicity -

single exposure

Not classified.



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 7 of 12

Version # 03 Print Date: 02-28-2018

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard

Not an aspiration hazard.

Further information Repeated dose toxicity - rat - female - Oral - No observed adverse effect level - 83 mg/kg - Lowest

observed adverse effect level - 801 mg/kg

12. ECOLOGICAL INFORMATION

| Ecotoxicity | Toxic to aquatic life with long lasting effects. |
|-------------|--|
|-------------|--|

| duct | | Species | Test Results |
|-----------------------|---|--|--|
| IONE BETA (CAS 14901- | 07-6) | | |
| Other | EC50 | Activated sludge of a predominantly domestic sewage | 1000 mg/l, 0.5 hours DIN EN ISO 8192-OECD 209-88/302/EEC,P C aerobic |
| Aquatic | | | |
| Algae | EC50 | Green algae (Chlamydomonas variabilis) | 22.15 mg/l, 72 hours DIN 38412 Part 9 static The detail of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested. |
| Crustacea | EC50 | Daphnia magna | 4.03 mg/l, 48 hours OECD Giudeline 202, part 1 static The detail of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested. |
| Fish | LC50 | Pimephales promelas | 5.09 mg/l, 96 hours EPA 72-1 Flow through The detail of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested. |
| | ONE BETA (CAS 14901-Other Aquatic Algae Crustacea | ONE BETA (CAS 14901-07-6) Other EC50 Aquatic Algae EC50 Crustacea EC50 | ONE BETA (CAS 14901-07-6) Other EC50 Activated sludge of a predominantly domestic sewage Aquatic Algae EC50 Green algae (Chlamydomonas variabilis) Crustacea EC50 Daphnia magna |

Persistence and degradability Test method: OECD Guideline 301 F (aerobic), activated sludge, domestic

Method of analysis: BOD of the ThOD Degree of elimination: 70-80 % (28 d)

Evaulation: Readily biodegradable (according to OECD criteria)

Bioaccumulative potential Because of the n-octanol/water distribution coeffient (log Pow) accumulation in organisms is

possible.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 8 of 12

Version # 03 Print Date: 02-28-2018

13. DISPOSAL CONSIDERATIONS

Disposal instructionsDo not discharge into drains, water courses or onto the ground. Do not allow this material to drain

into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or

used container. Dispose of contents/container in accordance with

local/regional/national/international regulations.

Local disposal regulationsDispose in accordance with all applicable regulations.

Hazardous waste code Not established.

Waste from residues / unused

products

Empty containers or liners may retain some product residues. This material and its container must

be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. TRANSPORT INFORMATION

ADN

UN number 3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IONONE BETA)

Transport hazard class(es) 9
Subsidiary class(es) Packing group III
Environmental hazards Yes
Labels required 9

ADR

UN number 3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IONONE BETA)

Transport hazard class(es) 9
Subsidiary class(es) Packing group III
Environmental hazards Yes
Labels required 9

RID

UN number 3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IONONE BETA)

Transport hazard class(es) 9
Subsidiary class(es) Packing Group III
Environmental Hazards Yes
Labels required 9

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

DOT

BULK

UN number 3082

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IONONE BETA)

Hazard class 9
Packing group III



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 9 of 12

Version # 03 Print Date: 02-28-2018

Environmental hazards

Marine pollutant Yes
Labels required 9

DOT

NON-BULK

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

UN number 3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IONONE BETA)

Transport hazard class(es) 9
Subsidiary class(es) Packing group III

Environmental hazards

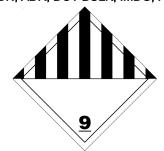
Marine pollutant Yes
Labels required 9

Transport in bulk according

to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

ADN; ADR; DOT BULK; IMDG; RID



Marine pollutant



15. REGULATORY INFORMATION



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 10 of 12

Version # 03 Print Date: 02-28-2018

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not available.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Yes

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

chemical

Classified hazard

Acute toxicity (any route of exposure)

categories

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

California Proposition 65

California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|----------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 11 of 12

Version # 03 Print Date: 02-28-2018

Country(s) or region Inventory name On inventory (yes/no)*

New Zealand New Zealand Inventory Yes

Yes

Philippines Philippine Inventory of Chemicals and Chemical Substances

(PICCS)

Taiwan Toxic Chemical Substances (TCS)

Yes

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

 Issue date
 02-28-2018

 Revision date
 02-28-2018

Version # 03

HMIS® ratings Health: 1

Flammability: 1 Physical hazard: 0

Disclaimer

Vigon International, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, and disposal and should not be considered as a guarantee or quality specification. This product has not been evaluated for safe use in e-cigarettes or any vaping application where the product(s) is/are intentionally vaporized and inhaled. Vigon International, Inc. has performed no testing on these products in e-cig/vaping applications. It is the sole responsibility of the individual(s) purchasing this product to assess its' safety in the final application. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, disposal, and should not be considered as a guarantee or quality specification. The above information is based on data provided by and collected from recognized sources such as distributors, manufacturers, and technical groups and is considered to be accurate to the best of Vigon's knowledge as of the date of this document. It is the responsibility of the user to review all safety information about this product and determine its safety and suitability in their own processes and operations. Appropriate warnings and safe handling procedures should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors relating to such use in accordance with all applicable laws and regulations.



504723 IONONE BETA NATURAL

Revision Date: 02-28-2018 Page 12 of 12

Version # 03 Print Date: 02-28-2018

Revision information Product and Company Identification: Product and Company Identification

IDENTIFICATION: Recommended restrictions HAZARD(S) IDENTIFICATION: Hazard statement

HAZARD(S) IDENTIFICATION: Response

COMPOSITION/INFORMATION ON INGREDIENTS: Component information

EXPOSURE CONTROLS/PERSONAL PROTECTION: Appropriate engineering controls

Physical & Chemical Properties: Multiple Properties Toxicological Information: Toxicological Data TOXICOLOGICAL INFORMATION: Carcinogenicity

Regulatory Information: United States

REGULATORY INFORMATION: California Proposition 65

OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION: Reference

S

HazReg Data: International Inventories



Date: September 6, 2021 כ״ט בַאַלול תשפ״א

Kof-K ID: K-0000507

Certificate ID: L2SNM-STRKH

Product Count: 1

Kosher Certificate



This certificate is valid through

12/31/2021

Vigon International, LLC 127 AIRPORT RD. EAST STROUDSBURG, PA 18301 UNITED STATES

The following product(s) Manufactured By Vigon International, LLC are certified kosher with the listed restrictions.

| Product Code | Product Name | Status | Restriction | UKD# |
|--------------|---------------------|--------|-----------------------|-------------|
| 504723 | IONONE BETA NATURAL | Parve | Kof-K symbol required | KFNHEAKD1K2 |



To verify or for the most up to date certificate please go to www.koshercertificate.com 201 The Plaza, Teaneck, NJ 07666 | Phone 201.837.0500 | fax 201.837.0126





شهادة حلال FANCA HALAL PRODUCT CERTIFICATE

This is to certify that the following product(s) have been produced under the supervision of the Islamic Food and Nutrition Council of America(IFANCA). The production facility as well as component ingredients have been reviewed and approved. The product(s) are in compliance with the halal requirements under Islamic laws.

Date: January 25, 2021

Document #: 6718.12506.II216616

Company Name & Address: Vigon International, Inc. 127 Airport Road East Stroudsburg, Pennsylvania 18301 USA

Plant Name & Address: Vigon International, Inc. 127 Airport Road East Stroudsburg, Pennsylvania 18301 USA

ProductName Product Code Halal-ID Product Certificate #

1. IONONE BETA NATURAL 504723 B67394 HC-21VI7P72

Muhammad Munir Chaudry, Ph.D.





This Certificate is valid until **January 31, 2022** and subject to renewal at that time.



Page 1 of 1

Food Grade Certification



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

FEMA #: 2595

Vigon International, LLC. certifies that the above flavor or ingredient is Food Grade in accordance with at least one of the following recognized organizations:

FDA/FEMA GRAS (Flavor and Extract Manufacturers Assoc. Generally Recognized as Safe)

JECFA (Joint FAO/WHO Expert Committee on Food Additives)

CoE (Council of Europe)

FLAVIS (Assigned by EFSA – European Food Safety Authority)

As a US based company, we have included the FEMA Number on this certificate however, the remaining numbers can be provided upon request. We hereby certify that this flavor or ingredient is safe for its intended use in food.

Vigon International, LLC. may terminate this certification at any time upon written notice in which this certificate shall become null and void as to any material supplied after termination of this certification.

Sincerely,

US - Natural Status Certificate



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. certifies that the product listed above is declared *natural* and *meets* the criteria of Naturalness as defined in Section 101.22 (a) (3) of Title 21 of the United States Code of Federal Regulations.

Vigon International, LLC. certifies that the product meets the following criteria:

- Does not contain any artificial flavors
- Is not adulterated or misbranded according to Food and Drug laws

Vigon International, LLC. may terminate this certification at any time upon written notice, in which this certification shall be null and void as to any material supplied after termination of the certification.

Sincerely,

Allergen/Sensitive Agents Identification Sheet



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

* A check mark (indicates the Allergen/Sensitive Agent is present. If blank it means that there is no Allergen/Sensitive present.

| ALLERGEN/SENSITIVE AGENTS | * |
|--|---|
| CORN & CORN PRODUCTS | |
| Includes modified starch, hydrolyzed protein, sweeteners, sugars, spice carriers | |
| EGG & EGG PRODUCTS | |
| liquid and powders | |
| FISH | |
| Includes any and all species of fresh and salt water fish | |
| GARLIC | |
| Dehydrated, powdered, granules, and flakes | |
| GLUTEN | |
| Wheat, rye, barley, oats, flour, etc. | |
| MILK & DAIRY PRODUCTS | |
| Includes whey, lactose, cheese, casein, spice carriers, milk, cream, etc. | |
| MONOSODIUM GLUTAMATE | |
| PEANUTS, PEANUT OIL & PEANUT DERIVED ITEMS | |
| Peanut meal, flour & ground nuts, szechwan sauce, mandelona nuts, etc. | |
| SESAME SEEDS & SESAME OIL | |
| CRUSTACEANS Shrimp, lobster, rock lobster, crab, crayfish, and products made from them | |
| MOLLUSKS | |
| Clams, mussels, oysters, scallops, and products made from them | |
| SOY | |
| Includes soya powder, protein, oil, lecithin, tofu | |
| SULFITES | |
| Includes sulfur dioxide, sodium dithionite, chemicals that lists sulfite, etc. | |
| TREE NUTS | |
| Includes almonds, beechnuts, bazil nuts, nutmeg, cashews, chestnuts, etc. | |
| WHEAT | |
| Includes hydrolyzed wheat protein, flour, gluten flour, starches | |
| MUSTARD & MUSTARD OIL | |
| LUPIN | |
| CELERY | |
| | |

Vigon International, LLC. follows Good Manufacturing Practices and has implemented HACCP systems. Our personnel are trained on the proper handling of allergenic materials.

Sincerely,

Organic Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. declares that the product listed above meets the requirements for nonagricultural (non-organic) substances allowed as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food group(s))" [7 CFR 205.605(a)(9)].

All of the <u>flavor</u> constituents in the natural flavor product named above meet the FDA definition of a natural flavor.

No synthetic solvents were used.

This natural flavor product, including any solvents, carriers, preservatives or other processing aids used or contained therein, was produced and handled **without** the use of excluded (GMO) methods.

Ionizing radiation as described in 21 CFR 179.26 was **not** used in the processing of this natural flavor product.

This natural flavor product was <u>not</u> derived from products using sewage sludge in their agricultural production.

Sincerely,

GMO Status Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. declares that the product listed above is not derived from or produced using genetically modified organisms or their derivatives.

Sincerely,

Ingredient Statement



100%

Product Name: IONONE BETA NATURAL

Vigon Code: 504723

CAS #: 14901-07-6 (E)-4-(2,6,6- trimethyl-1-cyclohexenyl)but-3-en-2-one

Sincerely,

Irradiation and Sewage Sludge Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. declares that the product listed above has <u>not</u> been:

- a) Exposed to Ionizing Radiation
- b) Derived from Sewage Sludge
- c) Treated with Ethyl Oxide

Vigon International, LLC. may terminate this statement at any time upon written notice in which this statement shall be null and void as to any material supplied after termination of the statement.

Sincerely,

Heavy Metals and Pesticide Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. declares that, to the best of our knowledge and belief, all ingredients in the product listed above are listed as being generally recognized as safe (GRAS) by the Food and Drug administration (FDA) when used in accordance with the FDA's good manufacturing practices (GMP) and contain no residues of heavy metals and pesticides in excess of tolerances set by the FDA and the Environmental Protection Agency (EPA).

Sincerely,

Stabilizer Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. declares that, to the best of our knowledge that the product listed above has not been treated with BHT, BHA, Tocopherols or any other stabilizer.

Vigon International, LLC. may terminate this statement at any time upon written notice in which this statement shall be null and void as to any material supplied after termination of the statement.

Sincerely,

Continuing Product Guarantee



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

In accordance with the regulations promulgated under the Federal Food, Drug, and Cosmetic Act, Vigon International, LLC. hereby provides continuing guarantee for the item listed above.

The article(s) comprising each shipment or other delivery hereafter made by Vigon International, LLC. is hereby guaranteed, as of the date of shipment or delivery, to be, on such date, not adulterated or misbranded 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.

The guarantee herein given shall be a continuing guarantee and shall remain in full force and effect until revoked in writing by the undersigned. This guarantee shall not limit or preclude the operation and effect of any and all provisions of any agreement(s) under which the articles covered by this guarantee are sold, and the provisions of such agreement(s) shall govern in the event of any conflict or inconsistency herewith. Supplier's liability for breach of this guarantee shall in no event exceed the value of such of the articles of the supplier shipped to or on the order of Purchaser hereunder as may fail to comply with this guarantee.

This guarantee shall be void and of no effect in any instance where the particular use by Purchaser of any article to which this guarantee would otherwise apply is a use which is not in accordance with the requirements of the Federal Food, Drug and Cosmetic Act. Any and all prior guarantees and/or indemnity agreements heretofore given by supplier, are hereby revoked.

Sincerely,

Dietary Preferences & Restrictions



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. certifies that the product listed above is suitable for consumption by:

| Vegans Do not eat meat, poultry, fish/seafood,eggs,dairy products, honey | |
|---|---|
| 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 | ~ |
| Vegetarians Do not eat meat, poultry, fish/seafood, but do eat dairy products and eggs | • |

Sincerely,

Animal Testing Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. is not in the practice of performing or commissioning animal testing on its finished products and actively evaluates the ingredients of its products through non-animal testing methods and through computational (predictive) toxicology programs. However, some ingredients used in our products have been subjected to animal testing by the academic community, government agencies, or within the chemical industry.

Sincerely,

Proposition 65 Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. certifies that the product above is **not listed** on the California's Safe Drinking Water and Toxic Enforcement Act of 1986, also known as Proposition 65.

Sincerely,

EU Declaration



Vigon Code: 504723

Product Name: IONONE BETA NATURAL

The product listed above is acceptable and/or approved for use in the European Union. Below is the flavoring status based on European Regulation 2008/1334/EC.

| | Flavouring Preparation |
|---|--|
| ~ | Natural Flavouring Substance |
| | Flavouring Substance |
| | Thermal Process Flavouring |
| | Smoke Flavouring |
| | Flavour Precursor |
| | Other Flavouring |
| | Not Applicable: Contains no ingredients whose use is intended primarily for flavour. |
| | Not Permitted: Contains ingredient(s) which are not permitted in flavours in the EU. |

Sincerely,

Printed: 09/08/21



NATURAL FLAVOR PRODUCT QUESTIONNAIRE - NATIONAL ORGANIC PROGRAM USE

The **USDA National Organic Program (NOP)** allows the use of certain natural (non-synthetic) substances, including flavors, in products labeled as "Organic" or "Made with Organic...(specified ingredients or food groups)" providing they comply with provisions established in the USDA NOP (7 CFR Part 205).

The NOP defines **Non-synthetic** (natural) in 7 CFR 205.2: a substance that is derived from mineral, plant or animal matter and does not undergo a synthetic process as defined in section 6502 (21) of the Act (7 U.S.C. 6502(21)). Under the terms of the Act, "**synthetic**" means a substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal or mineral sources, except that such term shall not apply to substances created by naturally occurring biological processes.

Non-synthetic Flavors authorized under the NOP, Section 205.605 (a)(9) must be from non-synthetic sources only and must not be produced using synthetic solvents, carrier systems or any artificial preservative.

In addition, Sections 205.105 (e)(f) respectively prohibit so-called "excluded" methods (GMOs) and ionizing radiation from being used to produce or during the handling of any ingredients or products under the NOP.

FDA Definition of Natural Flavors *FDA 21 CFR Part 101.22(a)(3)*: "...**natural flavor** or **natural flavoring** means the essential oil, oleoresin, essence or extractive, protein hydrolysate, distillate, or any product of roasting, heating or enzymolysis, which contains the flavoring constituents derived from a spice, fruit or fruit juice, vegetable or vegetable juice, edible yeast, herb, bark, bud, root, leaf or similar plant material, meat, seafood, poultry, eggs, dairy products, or fermentation products thereof, whose significant function in food is flavoring rather than nutritional. Natural flavors include [*but not exclusively*] the natural essences or extractives obtained from plants listed in §§182.10, 182.20, 182.40, and 182.50 and part 184 of this chapter, and the substances listed in §172.510 of this chapter."

In order to approve the use of a natural flavor used in an "organic" or "made with" product, QAI requests the information below in order to determine compliance under the terms of the NOP. QAI may request additional information as needed.

Identification of Natural Flavor Product (Name/code): IONONE BETA NATURAL/504723

Supplier Name and Address: Vigon International, LLC. 127 Airport Road East Stroudsburg, PA 18301 USA

Type of flavor (select one or more as necessary):

| Protein Hydrolysate | Extracts | | Essential oil |
|---------------------|-----------------|---|---------------|
| Compounded flavor | Oleoresin | | Isolate |
| Distillate | Compounded WONF | X | Other |

Natural Flavor Product

A Flavor constituents

Yes

| 1. | Do all of the <u>flavor</u> constituents in the natural flavor product named above meet the <u>FDA definition of a natural flavor (see</u> |
|----|--|
| | above)? |
| | $\overline{\mathbf{X}}$ Yes \square No |
| 2. | Natural flavors authorized for use in NOP "organic" or "made with organic" products, in addition, must not be produced using |
| | synthetic extraction solvents. Extraction may only use natural, non-petroleum based solvents. Is/are the natural flavor |

X N/A, no extraction solvents used

AESOP 9603; ISSUE 1; STATUS-PUBLISHED; EFFECTIVE 19 JUN 2009; AUTHORITY JACLYN M. BOWEN1 of 2

constituent(s) made using NOP-suitable extraction solvents?*

No

Printed: 09/08/21



| > Please list any solvent(s) used in the production of this Natural Flavor Product: |
|---|
| *Allowed natural extraction solvents include water, natural ethanol, super-critical carbon dioxide, authentic essential oil, and natural vegetable oils. No hydrocarbon solvents, or chlorinated, or halogenated solvents may be used. Propane, hexane, and freon are examples of solvents that are prohibited. |
| B. Non-flavor constituents and other ingredients |
| Natural flavors authorized for use in NOP "organic" or "made with organic" products must not contain any synthetic carrier systems or any artificial preservatives , including but not limited to, propylene glycol, polyglycerol esters of fatty acids, mono- and di-glycerides, benzoic acid, polysorbate 80. |
| > Please list any carrier system(s) used in this Natural Flavor Product or attach an Ingredient Statement: |
| $\overline{\mathbf{X}}$ N/A, no carrier system(s) used |
| > Please list any preservative(s) used in this Natural Flavor Product or attach an Ingredient Statement: |
| XN/A, no preservative(s) used |
| for NOP goods. Excluded methods (= GMO use) include a variety of methods used to genetically modify organisms or influence their growth and development by means that are not possible under natural conditions or processes and are not considered compatible with organic production. Such methods include, but are not limited to, recombinant DNA technology (including gene deletion, gene doubling, introduction of a foreign gene, and changing the positions of genes when achieved by recombinant DNA technology); therefore, GMO-plant extracts may not be used nor may natural flavors be the product of GMO-yeast fermentation. > This natural flavor product, including any solvents, carriers, preservatives or other processing aids used or contained |
| therein, was produced and handled without the use of excluded (GMO) methods? XYes No |
| D. Ionizing Radiation is prohibited for all uses involving food preservation, pest control and pathogen control in NOP products. Other radiation uses, including food inspection, are permitted providing such use meets applicable FDA regulations, which establish limitations applicable to all (organic and non-organic) food products. |
| > Ionizing radiation as described in 21 CFR 179.26 was not used in the processing of this natural flavor product? XYes \textbf{No} |
| Please sign this questionnaire below |
| Pursuant to 7CFR §205.605(a)(9) and §205.105(e)(f), I, on behalf of the supplier, hereby attest that the information provided in this form is accurate and truthful to the best of my knowledge. |
| Company Name: Vigon International LLC. |
| Printed Name: Amanda Moyer Title: Manager of Regulatory |
| Signature: Date: 09/08/21 |
| · |

Nanomaterials



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

We hereby confirm, to the best of our knowledge, that the above referenced product has not been formulated with engineered nanomaterials.

"Engineered nanomaterial" means any intentionally producted material that has one or more dimensions of the order of 100 nm or less or that is composed of discrete functional parts, either internally or at the surface, many of which have one or more dimensions of the order of 100 nm or less, including structures, agglomerates or aggregates, which may have a size above the order of 100nm but retain properties that are characteristic of the nanoscale.

Sincerely,

Transmissible Spongiform Encephalopathy (TSE) and Bovine



Spongiform Encephalopathy (BSE) Statement

Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Vigon International, LLC. products are manufactured wholly from synthetic, natural or manufactured materials and do not contain any raw materials produced from or substances derived of animal origin. Moreover, these products do not contain, and are not derived from, specified risk material as defined in Commission Decision 97/534/EC or mechanically recovered meat obtained from the vertebral column of bovine, ovine or caprine animals.

The manufacturing process does not use any ingredient of animal origin nor do our products come in contact with animal products during storage and transportation.

We further declare that our products are Dioxin Free.

Therefore, to the best of our knowledge the product listed above are free from Transmissible Spongiform Encephalopathy (TSE) and Bovine Spongiform Encephalopathy (BSE).

Vigon International, LLC. may terminate this statement at any time upon written notice, in which this statement shall be null and void as to any material supplied after termination of the statement.

Sincerely,

Vigon Regulatory Department regulatory@vigon.com

Date of Issue: September 8, 2021

IFRA



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

- Is not restricted as such according to the Standards of the International Fragrance Association (IFRA) (up to and including the 50th amendment)
- Bears no IFRA specifications

The IFRA Standards regarding use restriction are based on safety assessments by the Panel of Experts of the Research Institute for Fragrance Materials (RIFM) and are enforced by the IFRA Scientific Committee.

It is the ultimate responsibility of our customer to ensure the safety of the final product by further testing if need be.

Sincerely,

Botanical Species



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Botanical Species: Glucose

Part of plant used: Not applicable

Country of origin for the plant: China

Sincerely,

International Inventories



Yes

Product Name: IONONE BETA NATURAL

Vigon Code: 504723

On inventory (yes/no)* Country(s) or region Inventory name

| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
|-------------|--|-----|
| Canada | Domestic Substances List (DSL) | Yes |
| China | Inventory of Existing Chemical Substances in Chine (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Japan | Invntory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances | Yes |

(PICCS)

United States & Puerto Rico Toxic Substances and Control Act (TSCA) Inventory

Sincerely,

Vigon Regulatory Department regulatory@vigon.com

Date of Issue: September 8, 2021

Residual Solvents



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Based on our knowledge of our production process, raw materials and equipments used we do not expect residual solvents to be present.

Sincerely,

EU Fragrance Allergen Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

The product listed above is in compliance with the European Directive 76/768/EEC established by the SCCNFP declared allergens. This product is free of these fragrance allergens.

Sincerely,

Melamine Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

Based on our knowledge of our production process, raw materials and equipment used we do not expect melamine to be present.

Sincerely,

Phthalate Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

We've performed a risk assessment on our product contact plastics which include tubes, joints, caps, pumps, as well as packaging (e.g. plastic wraps and bags) and can confirm that our plastic products do not contain certain phthalate esters (most notably bis-2-Ethylhexyl phthalate[DEHP] and dibutyl phthalate [DBP]).

Sincerely,

ISO 9235 Statement



Product Name: IONONE BETA NATURAL

Vigon Code: 504723

The product listed above is natural according to ISO 9235 definition below:

Natural Raw Material

Sincerely,



Code: 504723

Vigon International, LLC. 127 Airport Road East Stroudsburg, PA 18301-9629 USA +1.570.476.6300 | sales@vigon.com

CHINA Country of Origin:

IONONE BETA

Chemical Name:

14901-07-6 CAS#:

> 200°F (93°C) Flash Point:

No Allergens Allergens:

Liters:

LB KG 0.000 | Produced on: Approx. Gross: 0.000

ID #: EXAMPLE

0.000 | Best used before: 0.000 N/A Approx. Tare:

EXAMPLE Net: 0.000 Lot #: 0.000

STORAGE CONDITIONS: Stable when stored in its original package, tightly sealed in a cool (46-90°F) and dry location out of direct heat and light.

IONONE BETA NATURAL

INSTRUCTIONS FOR USE: Ask your employer for guidance regarding the safe use and handling of this product in your specific workplace environment based on the information provided in Vigon's Safety Data Sheet (SDS).

HAZARD STATEMENT: May be harmful if swallowed or in contact with skin. Causes mild skin irritation. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.PRECAUTION ARY STATEMENT: -PREVENTION- Avoid release to the environment.-RESPONSE- Call a POISON CENTER/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. Collect spillage.-STORAGE- Store away from incompatible materials.-DISPOSAL- Dispose of contents/container in accordance with local/regional/national/international regulations.

