## Product Specification

**Product Name:** EXALTOLIDE® TOTAL  
**Vigon Code:** 502775  
**CAS Number:** 106-02-5  
**FEMA Number:** 2840

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid Value</td>
<td>0.000 - 3.000</td>
</tr>
<tr>
<td>Purity %</td>
<td>92.00 - 100.00</td>
</tr>
<tr>
<td>Gas Chromatograph</td>
<td>PASSES TEST</td>
</tr>
<tr>
<td>Odor</td>
<td>MUSK ODOR.</td>
</tr>
<tr>
<td>Color/appearance</td>
<td>WHITE TO PALE YELLOW SOLID.</td>
</tr>
</tbody>
</table>

### Additional Product Information:

**Flash Point:** >200 °F  
**Shelf Life:** 18 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:** August 28, 2017
1. IDENTIFICATION

Product Description: EXALTOLIDE® TOTAL

CAS # 106-02-5

FEMA Number 2840

Other means of identification

Vigon Item # 502775

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.

Recommended restrictions For Manufacturing Use Only

Company Vigon International, Inc.

Vigon International, Inc. 24 Hour Emergency Response Information

127 Airport Road INFOTRAC (ACCT# 78928);

E. Stroudsburg, PA 18301 1-800-535-5053 WITHIN THE U.S.A.

For information call: 570-476-6300 1-352-323-3500 OUTSIDE THE U.S.A.

Web Site: www.vigon.com

Manufacturer/Importer/Supplier/Distributor information

Company name Vigon International, Inc.

Address 127 Airport Road

E. Stroudsburg, PA 18301

United States

Telephone For information call: 570-476-6300

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 Skin corrosion/irritation Category 3

Sensitization, skin Category 1

Environmental hazards Hazardous to the aquatic environment, Category 1

acute hazard

Hazardous to the aquatic environment, Category 1

long-term hazard

Label elements
SAFETY DATA SHEET

502775 EXALTOLIDE® TOTAL

Signal word: Warning

Hazard statement: Causes mild skin irritation. May cause an allergic skin reaction. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves.

Response: IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>16-oxacyclohexadecan-1-one</td>
<td>PENTADECALACTONE</td>
<td>106-02-5</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Oxacyclohexadecan-2-one</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pentadecan-15-olide</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMEGA-PENTADECALACTONE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 soaps 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. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed: Not available.

General information: 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: Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
SAFETY DATA SHEET

502775 EXALTOLIDE® TOTAL

Revision Date: 10-22-2018
Version # 03

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

Specific hazards arising from the chemical
Fire may produce irritating, corrosive and/or toxic gases.

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
Use water spray to cool unopened containers.

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
Keep unnecessary personnel away. Eliminate all sources of ignition. 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.

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

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 discharge. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities
Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

Appropriate engineering controls  
Use explosion-proof ventilation equipment to stay below exposure limits. Adequate ventilation 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). Face shield is recommended.

Skin protection  
Hand protection  
Chemical resistant gloves.

Other  
Use of an impervious apron is recommended.

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  
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. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance  
Refer to Spec Sheet

Physical state  
Solid.

Form  
Solid.

Color  
Refer to Spec Sheet

Odor  
Characteristic.

Odor threshold  
Not available.

pH  
Not available.

Melting point/freezing point  
93.2 - 100.4 °F (34 - 38 °C)

Initial boiling point and boiling range  
278.6 °F (137 °C) at 2 mmHg

Flash point  
> 200.0 °F (> 93.3 °C) Closed Cup

Evaporation rate  
Not available.

Flammability (solid, gas)  
Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower  
(%)  
Not available.

Flammability limit - upper  
(%)  
Not available.

Explosive limit - lower  
(%)  
Not available.

Explosive limit - upper  
(%)  
Not available.

Vapor pressure  
1 mm Hg at 20 °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 avoid
Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials
Strong oxidizing agents.

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

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
No adverse effects due to inhalation are expected.

Skin contact
Causes mild skin irritation. May cause an allergic skin reaction.

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

Ingestion
Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity
SAFETY DATA SHEET
502775 EXALTOLIDE® TOTAL

Revision Date: 10-22-2018
Page 6 of 11
Version # 03
Print Date: 10-22-2018

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>16- oxacyclohexadecan-1-one (CAS 106-02-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Causes mild skin irritation.</td>
<td></td>
</tr>
<tr>
<td>Irritation (dermal, rabbit)(LD50 study): slight irritant @ 100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritation (dermal, mouse)(phototoxicity study): Non irritant @ 100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritation (dermal, pig)(phototoxicity study): Non irritant @ 100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritation (dermal)(Human max.): Non irritant @ 4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritation (dermal, human)(single patch): Non irritant @ 10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Direct contact with eyes may cause temporary irritation.</td>
<td></td>
</tr>
<tr>
<td>Irritation (ocular, rabbit) (OECD 405): Non irritant @ 0.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not a respiratory sensitizer.</td>
<td></td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>May cause an allergic skin reaction.</td>
<td></td>
</tr>
<tr>
<td>Sensitization (HRIPT): Non sensitizing @ 2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitization (Human max.): Non sensitizing @ 10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Photo-toxicity (rabbit): Effects @ 10%, no effects @ %5</td>
<td></td>
</tr>
<tr>
<td>Photo-toxicity (guinea pig): Effects @ 50%, no effects @ 10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo-toxicity (guinea pig): No effects @ 20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo-toxicity (mouse): No effects @ 100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo-toxicity (pig): No effects @ 100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Mutagenicity (OECD 471): Non mutagenic (5 tests)</td>
<td></td>
</tr>
<tr>
<td>Genotoxicity (micronucleus test)(OECD 474): No effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>IARC Monographs. Overall Evaluation of Carcinogenicity</td>
<td></td>
</tr>
<tr>
<td>Not listed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US. National Toxicology Program (NTP) Report on Carcinogens</td>
<td>Not listed.</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>This product is not expected to cause reproductive or developmental effects.</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity - single exposure</td>
<td>Not classified.</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure</td>
<td>Not classified.</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not an aspiration hazard.</td>
<td></td>
</tr>
</tbody>
</table>
12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-oxacyclohexadecan-1-one (CAS 106-02-5)</td>
<td>Aquatic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crustacea</td>
<td>EC50</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>LC50</td>
</tr>
</tbody>
</table>

Persistence and degradability

Readily biodegradability (OECD 301 F): readily biodegradable
Readily biodegradability (OECD 301 D): readily biodegradable
Readily biodegradability (OECD 301 B): readily biodegradable

Bioaccumulative potential

No data available.

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.

13. DISPOSAL CONSIDERATIONS

Disposal instructions

Do 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 regulations

Dispose 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

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN proper shipping name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3077</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (16-oxacyclohexadecan-1-one)</td>
</tr>
</tbody>
</table>

Transport hazard class(es)

9

Subsidiary class(es)

- 

Packing group

III 

Environmental hazards

Yes 

Labels required

9

ADR

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN proper shipping name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3077</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (16-oxacyclohexadecan-1-one)</td>
</tr>
</tbody>
</table>

Transport hazard class(es)

9
**SAFETY DATA SHEET**

**502775 EXALTOLIDE® TOTAL**

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

**RID**

| UN number | 3077 |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (16-oxacyclohexadecan-1-one) |
| 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 | 3077 |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (16-oxacyclohexadecan-1-one) |
| Hazard class | 9 |
| Packing group | III |
| Environmental hazards |  
  - Marine pollutant | Yes |
  - Packaging exceptions | 155 |
  - Packaging bulk | 240 |
  - Labels required | 9 |

**DOT**

**NON-BULK**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

| UN number | 3077 |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (16-oxacyclohexadecan-1-one) |
| 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. |
15. REGULATORY INFORMATION

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical

<table>
<thead>
<tr>
<th>Classified hazard categories</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (any route of exposure)</td>
<td>Respiratory or skin sensitization</td>
</tr>
</tbody>
</table>

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 (SDWA)
Not regulated.

US state regulations

California Proposition 65
California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

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

| Issue date | 06-06-2017 |
| Revision date | 10-22-2018 |
| Version # | 03 |
| HMIS® ratings | Health: 2  
Flammability: 1  
Physical hazard: 1 |

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.
Revision information

Product and Company Identification: Alternate Trade Names
IDENTIFICATION: Recommended restrictions
HAZARD(S) IDENTIFICATION: Hazard statement
HAZARD(S) IDENTIFICATION: Response
COMPOSITION/INFORMATION ON INGREDIENTS: Component information
Physical & Chemical Properties: Multiple Properties
Toxicological Information: Toxicological Data
TOXICOLOGICAL INFORMATION: Carcinogenicity
Ecological Information: Ecotoxicity
REGULATORY INFORMATION: California Proposition 65
OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION: Reference
s OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION:
Disclaimer
Date: May 13, 2020
Kof-K ID: K-0000507
Certificate ID: IBBZU-V6269
Product Count: 1

VIGON INTERNATIONAL, INC
127 AIRPORT RD.
EAST STROUDSBURG, PA 18301 UNITED STATES

The following product(s) Manufactured By VIGON INTERNATIONAL, INC are certified kosher with the listed restrictions.

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Product Name</th>
<th>Status</th>
<th>Restriction</th>
<th>UKD#</th>
</tr>
</thead>
<tbody>
<tr>
<td>502775</td>
<td>EXALTOLIDE TOTAL</td>
<td>Parve</td>
<td>Kof-K symbol required</td>
<td>KFX6STT7XGQ</td>
</tr>
</tbody>
</table>

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

Disclaimer: This certificate is the private property of KOF-K Kosher Supervision and cannot be reposted without the express permission of KOF-K Kosher Supervision.
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: November 15, 2019  
Document #: 6718.12506.II194787

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

<table>
<thead>
<tr>
<th>ProductName</th>
<th>Product Code</th>
<th>Halal-ID</th>
<th>Product Certificate #</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXALTOLIDE® TOTAL</td>
<td>502775</td>
<td>B24647</td>
<td>HC-19VIFI78</td>
</tr>
</tbody>
</table>

This Certificate is valid until January 31, 2021 and subject to renewal at that time.
Food Grade Certification

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775
FEMA #: 2840

Vigon International, Inc. certifies that the above flavor or ingredient is FDA/FEMA GRAS. We would like to assure you that we use only flavor ingredients that are listed as being generally recognized as safe (GRAS) on a reliable published industry association (FEMA) list and/or are approved for use in a regulation of the U.S. Food and Drug Administration. We hereby certify that this flavor or ingredient is safe for its intended use in food.

Vigon International, Inc. 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,

Amanda Moyer
Product Documentation Coordinator
Date of Issue: May 14, 2020
Allergen/Sensitive Agents Identification Sheet

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

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

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

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

Sincerely,

Amanda Moyer
Product Documentation Coordinator
Date of Issue: May 14, 2020
GMO Status Statement

Product Name: EXALTOLIDE® TOTAL
Vigon Code: 502775

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

Sincerely,

Amanda Moyer
Product Documentation Coordinator
Date of Issue: May 14, 2020
Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

CAS #: 106-02-5 16-oxacyclohexadecan-1-one 100%

Vigon Regulatory Department
Date of Issue: May 14, 2020
Irradiation and Sewage Sludge Statement

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

Vigon International, Inc. declares that the product listed above has not been:

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

Vigon International, Inc. 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,

Amanda Moyer
Product Documentation Coordinator
Date of Issue: May 14, 2020
Heavy Metals and Pesticide Statement

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

Vigon International, Inc. 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,

Amanda Moyer  
Product Documentation Coordinator  
Date of Issue: May 14, 2020
Continuing Product Guarantee

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

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

The article(s) comprising each shipment or other delivery hereafter made by Vigon International, Inc. 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,

Amanda Moyer
Product Documentation Coordinator
Date of Issue: May 14, 2020
Dietary Preferences & Restrictions

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

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

<table>
<thead>
<tr>
<th>Dietary Preference</th>
<th>Suitable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegans</td>
<td>✔️</td>
</tr>
<tr>
<td>Lacto-Vegetarians</td>
<td>✔️</td>
</tr>
<tr>
<td>Ovo-Vegetarians</td>
<td>✔️</td>
</tr>
<tr>
<td>Vegetarians</td>
<td>✔️</td>
</tr>
</tbody>
</table>

Sincerely,

Amanda Moyer
Product Documentation Coordinator
Date of Issue: May 14, 2020
Vigon International, Inc. 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,

Amanda Moyer
Product Documentation Coordinator
Date of Issue: May 14, 2020
Proposition 65 Statement

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

Vigon International, Inc. 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,

Amanda Moyer
Product Documentation Coordinator
Date of Issue: May 14, 2020
Nanomaterials

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

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 produced 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.

Vigon Regulatory Department
Date of Issue: May 14, 2020
Spongiform Encephalopathy (BSE) Statement

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

Vigon International, Inc. 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, Inc. 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.

Vigon Regulatory Department
Date of Issue: May 14, 2020
# International Inventories

**Product Name:** EXALTOLIDE® TOTAL  
**Vigon Code:** 502775

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances and Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Vigon Regulatory Department  
Date of Issue: May 14, 2020
Solvent

Product Name: EXALTOLIDE® TOTAL

Vigon Code: 502775

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

Vigon Regulatory Department
Date of Issue: May 14, 2020