

Safety Data Sheet
acc. to OSHA HCS (29 CFR § 1910.1200)

Date of issue: 01/24/2025

Reviewed on 01/24/2025

1 Identification

· **Product identifier**

- Trade name: Green Key (Halal) Natural
- Other means of identification

· **Product number:** 1651

· **Application of the substance / the mixture** Flavoring Ingredients

· **Details of the supplier of the safety data sheet**

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· **Manufacturer/Supplier:**

Advanced Biotech
10 Taft Road
Totowa, NJ 07512 USA

· **Information department:**

Product Safety Department
productsafety@adv-bio.com

· **Emergency telephone number:**

Infotrac: 1-800-535-5053 (Domestic) & 1-352-323-3500 (International)
Email: responders@infotrac.net & During normal business hours: 1-973-339-6242

2 Hazard(s) identification

· **Classification of the substance or mixture**



GHS02 Flame

Flammable liquids 3 H226 Flammable liquid and vapor.



GHS07

Eye irritation 2A H319 Causes serious eye irritation.

· **GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Warning

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· **Hazard statements**

H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Information pertaining to particular dangers for man and environment:**

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 3
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2
Fire = 3
Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Classification according to (d)(1)(ii) of § 1910.1200**

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

· **Hazards not otherwise classified**

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

Proprietary FEMA/GRAS Flavoring Ingredient	50-100%
⚠ Flammable liquids 3, H226; ⚠ Eye irritation 2A, H319	
Proprietary GRAS Ingredient	10-25%
⚠ Flammable liquids 2, H225	

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Proprietary FEMA/GRAS Flavoring Ingredient

2.5-10%

⚠ Flammable liquids 3, H226; ⚠ Acute toxicity - oral 4, H302

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed**
 No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
 No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.
- **Additional information**
 Cool endangered receptacles with water spray.
 Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
 Dilute with plenty of water.
 Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose contaminated material as waste according to section 13.
 Ensure adequate ventilation.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

CAS: 102-76-1	Triacetin	19 mg/m ³
	Proprietary GRAS Ingredient	1,200 ppm
	Proprietary FEMA/GRAS Flavoring Ingredient	10 ppm

· **PAC-2:**

CAS: 102-76-1	Triacetin	210 mg/m ³
	Proprietary GRAS Ingredient	1,700 ppm

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	Proprietary FEMA/GRAS Flavoring Ingredient	110 ppm
· PAC-3:		
CAS: 102-76-1	Triacetin	1,200 mg/m ³
	Proprietary GRAS Ingredient	10000** ppm
	Proprietary FEMA/GRAS Flavoring Ingredient	580 ppm

· Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
 Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 Please refer to the product specification and/or Certificate of Analysis for product storage requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
 The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
 At this time, the remaining constituent has no known exposure limits.

Proprietary GRAS Ingredient	
PEL	Long-term value: 1400 mg/m ³ , 400 ppm
REL	Long-term value: 1400 mg/m ³ , 400 ppm
TLV	Long-term value: 400 ppm
Proprietary FEMA/GRAS Flavoring Ingredient	
WEEL	Long-term value: 40 ppm eye irritation

- **Additional information:** The lists that were valid during the creation were used as a basis.
- **Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.

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- Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be determined by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Physical state**

Liquid

- **Color:**

According to product specification

- **Odor:**

According to product specification

- **Odor threshold:**

Not determined.

- **Melting point/Melting range:**

Undetermined.

- **Boiling point/Boiling range:**

Undetermined.

- **Flammability:**

Flammable.

- **Explosion limits:**

- **Lower:**

2.1 Vol %

- **Upper:**

11.5 Vol %

- **Flash point:**

30 °C (86 °F)

- **Auto igniting:**

460 °C (860 °F)

- **Decomposition temperature:**

Not determined.

- **pH-value:**

Not determined.

- **Viscosity:**

- **Kinematic:**

Not determined.

- **Dynamic:**

Not determined.

- **Solubility in / Miscibility with**

- **Water:**

Fully miscible.

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<ul style="list-style-type: none"> · Partition coefficient (n-octanol/water): Not determined. · Vapor pressure at 20 °C (68 °F): 97 hPa (72.8 mm Hg) · Vapor pressure: · Density at 20 °C (68 °F): 0.885-0.91 g/cm³ (7.38533-7.59395 lbs/gal) · Relative density Not determined. · Specific Gravity 0.885 – 0.910 @ 20 °C (33.6 – 33.6 @ 68 °F) · Refractive Index · Vapor density Not determined. · Particle characteristics Not applicable.
<ul style="list-style-type: none"> · Other information · Appearance: · Form: Liquid · Important information on protection of health and environment, and on safety. · Ignition temperature: Product is not selfigniting. · Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible. · Solvent content: · Organic solvents: 14.1 % · VOC content: 14.10 % 124.8-128.3 g/l / 1.04-1.07 lb/gal · Change in condition · Evaporation rate Not determined.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Oral	LD50	13,889 mg/kg
Dermal	LD50	48,611 mg/kg (ATE)

Proprietary FEMA/GRAS Flavoring Ingredient

Oral	LD50	4,615 mg/kg (ATE) 4,700 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)

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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
 The product shows the following dangers according to internally approved calculation methods for preparations:
 Irritant
- **Interactive effects** No interactive effects between components are known.
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Alternative sources for toxicological information**

No non-standard sources for toxicological information where used.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects**
- **Additional ecological information:**
- **General notes:**
 Water hazard class 1 (Self-assessment): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA 	UN1987
<ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG, IATA 	Alcohols, n.o.s. (Ethyl acetate, 3-Hexenol) ALCOHOLS, N.O.S. (ETHYL ACETATE, 3-Hexenol)
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	
	
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · IMDG, IATA 	
	
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · Packing group · DOT, IMDG, IATA 	III
<ul style="list-style-type: none"> · Environmental hazards: 	Not applicable.
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: · DOT · Quantity limitations 	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category 	Warning: Flammable liquids 30 F-E,S-D A
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN 1987 ALCOHOLS, N.O.S. (ETHYL ACETATE, 3-HEXENOL), 3, III

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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.
 The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Warning

· **Hazard statements**

H226 Flammable liquid and vapor.
 H319 Causes serious eye irritation.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
 No smoking.

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- P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
 - P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 - P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P403+P235 Store in a well-ventilated place. Keep cool.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H225 Highly flammable liquid and vapor.
- H226 Flammable liquid and vapor.
- H302 Harmful if swallowed.
- H319 Causes serious eye irritation.

· **Department issuing SDS:** Product Safety Department

· **Contact:**

Product Safety Department
productsafety@adv-bio.com

· **Date of previous version** 01/16/2024

· **Date of preparation** 01/24/2025

· **Abbreviations and acronyms:**

- ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Flammable liquids 2: Flammable liquids – Category 2
- Flammable liquids 3: Flammable liquids – Category 3
- Acute toxicity - oral 4: Acute toxicity – Category 4
- Eye irritation 2A: Serious eye damage/eye irritation – Category 2A