


**SECTION 1: IDENTIFICATION**

- 1.1 GHS Product identifier:** 7.81294 - AAKU / KIWI FLAVOR, NATURAL  
Propane-1,2-diol  
CAS: 57-55-6
- 1.2 Recommended use of the chemical and restrictions on use:**  
Relevant uses: Food aroma. For professional user/industrial user only.  
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**  
Name: OliveNation LLC  
Address: 13 Robbie Road #A4  
Avon, MA 02322 US  
Phone.: 617-580-3667  
Site: <http://www.OliveNation.com>
- 1.4 Emergency phone number:** 1-800-424-9300

**SECTION 2: HAZARD(S) IDENTIFICATION**

- 2.1 Classification of the substance or mixture:**  
**29 CFR 1910.1200:**  
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.  
Skin Sens. 1: Sensitisation, skin, Category 1, H317
- 2.2 Label elements:**  
**29 CFR 1910.1200:**  
**Warning**  
  
**Hazard statements:**  
Skin Sens. 1: H317 - May cause an allergic skin reaction  
**Precautionary statements:**  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray  
P272: Contaminated work clothing should not be allowed out of the workplace  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P302+P352: IF ON SKIN: Wash with plenty of soap and water  
P333+P313: If skin irritation or rash occurs: Get medical advice/attention  
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively  
**Substances that contribute to the classification**  
Citral (CAS: 5392-40-5)
- 2.3 Hazards not otherwise classified (HNOC):**  
Non-applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

- 3.1 Substances:**  
**Chemical description:** Mixture based on aromatising substances and preparations.  
**Components:**  
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)**

Identification	Chemical name/Classification	Concentration
CAS: 57-55-6	<b>Propane-1,2-diol</b>	<b>50 - &lt;75 %</b>
CAS: 5392-40-5	<b>Citral</b> Flam. Liq. 4: H227; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	<b>&lt;1 %</b>

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

**3.2 Mixtures:**

Non-applicable

**SECTION 4: FIRST-AID MEASURES**

**4.1 Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**4.2 Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

**SECTION 5: FIRE-FIGHTING MEASURES**

**5.1 Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

**5.2 Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

**6.2 Environmental precautions:**

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

**6.3 Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling:**

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:**

A.- Technical measures for storage

Minimum Temp.: 59 °F

Maximum Temp.: 77 °F

Maximum time: 12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace

There are no occupational exposure limits for the substances contained in the product

**8.2 Appropriate engineering controls:**

A.- Individual protection measures, such as personal protective equipment


## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.


### B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

### C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR)



### D.- Ocular and facial protection

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR)

### E.- Bodily protection

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration.
	Anti-slip work shoes	Replace before any evidence of deterioration.

### F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

### National volatile organic compound emission standards (40 CFR Part 59):

V.O.C. (Subpart C - Consumer): 61.29 % weight  
 V.O.C. (Coatings) at 68 °F: 656.62 kg/m<sup>3</sup> (656.62 g/L)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

#### Appearance:

Physical state at 68 °F: Liquid

\*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

Appearance:	Not available
Color:	Colorless
Odor:	Not available
Odour threshold:	Non-applicable *
<b>Volatility:</b>	
Boiling point at atmospheric pressure:	311 °F
Vapour pressure at 68 °F:	1355 Pa
Vapour pressure at 122 °F:	7127.15 Pa (7.13 kPa)
Evaporation rate at 68 °F:	Non-applicable *
<b>Product description:</b>	
Density at 68 °F:	1071.4 kg/m <sup>3</sup>
Relative density at 68 °F:	1.078
Dynamic viscosity at 68 °F:	149.86 cP
Kinematic viscosity at 68 °F:	139.88 cSt
Kinematic viscosity at 104 °F:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 68 °F:	Non-applicable *
Partition coefficient n-octanol/water 68 °F:	Non-applicable *
Solubility in water at 68 °F:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
<b>Flammability:</b>	
Flash Point:	210 °F
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	365 °F
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *
<b>Explosive:</b>	
Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *
<b>9.2 Other information:</b>	
Surface tension at 68 °F:	Non-applicable *
Refraction index:	Non-applicable *

\*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

**10.2 Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Product Code: **7.81294**  
 Product Name: **KIWI FLAVOR, NATURAL**  
 Product Sku: **AAKU**

**SECTION 10: STABILITY AND REACTIVITY (continued)**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Precaution	Not applicable

**10.5 Incompatible materials:**

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.  
IARC: Acetaldehyde (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

**SECTION 11: TOXICOLOGICAL INFORMATION (continued)**

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Propane-1,2-diol CAS: 57-55-6	>5000 mg/kg	>5000 mg/kg	
	>20 mg/L (4 h)		
Citral CAS: 5392-40-5	4950 mg/kg	2250 mg/kg	Rat
	>20 mg/L		Rabbit

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 Ecotoxicity (aquatic and terrestrial, where available):**

Identification	Acute toxicity		Species	Genus
	LC50	EC50		
Propane-1,2-diol CAS: 57-55-6	51400 mg/L (96 h)	10000 mg/L (24 h)	Pimephales promelas	Fish
		19100 mg/L (336 h)	Daphnia magna	Crustacean
			Selenastrum capricornutum	Algae
Citral CAS: 5392-40-5	6.1 mg/L (24 h)	11 mg/L (24 h)	Oryzias latipes	Fish
		16 mg/L (72 h)	Daphnia magna	Crustacean
			Scenedesmus subspicatus	Algae

**12.2 Persistence and degradability:**

Identification	Degradability		Biodegradability	
	BOD5	COD	Concentration	Period
Propane-1,2-diol CAS: 57-55-6	1.08 g O2/g	1.63 g O2/g	100 mg/L	28 days
	0.66		% Biodegradable	90 %
Citral CAS: 5392-40-5	0.56 g O2/g	1.99 g O2/g	100 mg/L	28 days
	0.28		% Biodegradable	92 %

**12.3 Bioaccumulative potential:**

Identification	Bioaccumulation potential	
	BCF	Pow Log
Propane-1,2-diol CAS: 57-55-6	1	-0.92
		Low
Citral CAS: 5392-40-5	10	3.45
		Low

**12.4 Mobility in soil:**

Identification	Absorption/desorption		Volatility	
	Koc	Conclusion	Henry	Dry soil
Propane-1,2-diol CAS: 57-55-6	Non-applicable	Non-applicable	Non-applicable	Non-applicable
			Dry soil	Non-applicable
		3.547E-2 N/m (77 °F)	Moist soil	Non-applicable

**12.5 Results of PBT and vPvB assessment:**

Non-applicable

Product Code: **7.81294**  
 Product Name: **KIWI FLAVOR, NATURAL**  
 Product Sku: **AAKU**

**SECTION 12: ECOLOGICAL INFORMATION (continued)**

**12.6 Other adverse effects:**

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Disposal methods:**

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

**SECTION 14: TRANSPORT INFORMATION**

This product is not regulated for transport.

**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations specific for the product in question:**

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable  
 California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable  
 The Toxic Substances Control Act (TSCA) : Propane-1,2-diol ; Citral  
 Massachusetts RTK - Substance List: Non-applicable  
 New Jersey Worker and Community Right-to-Know Act: Propane-1,2-diol  
 New York RTK - Substance list: Non-applicable  
 Pennsylvania Worker and Community Right-to-Know Law: Propane-1,2-diol  
 CANADA-Domestic Substances List (DSL): Propane-1,2-diol ; Citral  
 CANADA-Non-Domestic Substances List (NDSL): Non-applicable  
 NTP (National Toxicology Program): Non-applicable  
 Minnesota - Hazardous substances ERTK: Non-applicable  
 Rhode Island - Hazardous substances RTK: Propane-1,2-diol  
 OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable  
 Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

The Toxic Substances Control Act (TSCA)  
 Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

**SECTION 16: OTHER INFORMATION**

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**

H317: May cause an allergic skin reaction

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**



Product Code: **7.81294**  
Product Name: **KIWI FLAVOR, NATURAL**  
Product Sku: **AAKU**

**SECTION 16: OTHER INFORMATION (continued)**

Flam. Liq. 4: H227 - Combustible liquid  
Skin Irrit. 2: H315 - Causes skin irritation  
Skin Sens. 1: H317 - May cause an allergic skin reaction

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
CL50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol-water partition coefficient  
Koc: Partition coefficient of organic carbon

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END OF SAFETY DATA SHEET