



This safety data sheet complies with the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision Date 21-Mar-2019

Version 6

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s)** 261ICR  
**Product name** VANILLA CUSTARD TYPE EXTRACT, NATURAL & ARTIFICIAL

**Pure substance/mixture** Mixture  
Contains ETHYL ALCOHOL

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended Use** Ingredient for further processing

**Uses advised against** No information available

### 1.3. Details of the supplier of the safety data sheet

**Manufacturer** Apex Flavors, Inc.  
1371 Brass Mill Rd.  
Suite A  
Belcamp, MD 21017  
(410) 565-6600

### For further information, please contact:

E-mail Address cpisano@apexflavors.com

### 1.4. Emergency telephone number

Emergency telephone Chemtrec: 1-800-424-9300 for US/ 703-527-3887 outside US

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

<b>Acute toxicity - Inhalation (Vapors)</b>	Category 4 - (H332)
<b>Specific target organ systemic toxicity (repeated exposure)</b>	Category 1 - (H372)

### 2.2. Label elements

**Product identifier**  
Contains ETHYL ALCOHOL



**Signal Word**  
Danger

**Hazard Statements**

H332 - Harmful if inhaled

H372 - Causes damage to organs through prolonged or repeated exposure if inhaled

**Precautionary Statements - EU (§28, 1272/2008)**

P201 - Obtain special instructions before use

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P314 - Get medical advice/attention if you feel unwell

P501 - Dispose of contents/container to industrial incineration plant

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

**2.3. Other information**

No information available

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Chemical Name	EC-No	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
PROPYLENE GLYCOL	200-338-0	57-55-6	50-90%	No data available	No data available
ETHYL ALCOHOL	200-578-6	64-17-5	1-5%	Flam. Liq. 2 (H225) Eye Irrit. 1 (H319)	No data available
HEXANOIC ACID (CAPROIC ACID)	Present	142-62-1	<1%	Aquatic Acute 3 (H402) (EFFA) Skin Corr. 1C (314) (EFFA) Eye Dam. 1 (H318) (EFFA) Acute Tox. 5 (H303)(EFFA) Acute Tox. 3 (H311)(EFFA)	No data available
BUTYRIC ACID	Present	107-92-6	<1%	Aquatic Acute 3 (H402) (EFFA) Skin Corr. 1B (314) (EFFA) Eye Dam. 1 (H318) (EFFA) Acute Tox. 4 (H302) (EFFA) Flam. Liq. 4 (H227)(EFFA) Skin Corr. 1B (H314)	No data available
ETHYL ACETATE	Present	141-78-6	<1%	Eye Irrit. 1 (H319) (EFFA) Flam. Liq. 2 (H225) (EFFA) Eye Irrit. 1 (H319) (EUH066) Flam. Liq. 2 (H225) STOT SE 3 (H336) Eye Irrit. 2 (H319)	No data available
ACETYL METHYL CARBINOL	208-174-1	513-86-0	<1%	Flam. Liq. 3 (H226)(EFFA)	No data available
METHYL N-AMYL KETONE FCC (2-Heptanone)	Present	110-43-0	<1%	Acute Tox. 4 (H302) Acute Tox. 4 (H302) (EFFA) Flam. Liq. 3 (H226)(EFFA) Acute Tox. 4 (H332)(EFFA) Flam. Liq. 3 (H226) Acute Tox. 4 (H332)	No data available
ETHYL BUTYRATE	203-306-4	105-54-4	<1%	Aquatic Acute 2 (H401) (EFFA) Skin Irrit. 3 (316) (EFFA) Flam. Liq. 3 (H226)(EFFA)	No data available
ACETYL PROPIONYL FCC (2,3 PENTANEDIONE)	209-984-8	600-14-6	<1%	No data available	No data available

**For the full text of the R-phrases mentioned in this Section, see Section 16****Full text of H- and EUH-phrases: see section 16****Section 4: FIRST AID MEASURES**

#### 4.1. Description of first aid measures

<b>General advice</b>	If symptoms persist, call a physician.
<b>Inhalation</b>	Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
<b>Skin contact</b>	Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.
<b>Self-protection of the first aider</b>	Use personal protective equipment.

#### 4.2. Most important symptoms and effects, both acute and delayed

**Main Symptoms** No information available.

#### 4.3. Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

### **Section 5: FIRE FIGHTING MEASURES**

#### 5.1. Extinguishing media

**Suitable Extinguishing Media**

Use. Dry chemical. Carbon dioxide CO<sub>2</sub>. Water spray. Alcohol-resistant foam.

**Unsuitable extinguishing media**

No information available

#### 5.2. Special hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition Risk of ignition

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

### **Section 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**

Use personal protective equipment. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

**For emergency responders**

Use personal protection recommended in Section 8.

#### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

### 6.3. Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

### 6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### Advice on safe handling

Use only in area provided with appropriate exhaust ventilation. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and open flame. No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

#### General Hygiene Considerations

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Storage Conditions

Keep away from heat and sources of ignition. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers.

#### Incompatible products

None known based on information supplied.

### 7.3 Specific end use(s)

#### Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Chemical Name	European Union	The United Kingdom	France	Spain	Germany
PROPYLENE GLYCOL 57-55-6	-	STEL: 450 ppm STEL: 1422 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> TWA: 150 ppm TWA: 474 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	-	-	-
ETHYL ALCOHOL 64-17-5	-	STEL: 3000 ppm STEL: 5760 mg/m <sup>3</sup> TWA: 1000 ppm TWA: 1920 mg/m <sup>3</sup>	VME: 1000 ppm VME: 1900 mg/m <sup>3</sup> VLCT: 5000 ppm VLCT: 9500 mg/m <sup>3</sup>	VLA-ED: 1000 ppm VLA-ED: 1910 mg/m <sup>3</sup>	-
ETHYL ACETATE 141-78-6	-	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 1400 mg/m <sup>3</sup>	TWA: 400 ppm TWA: 1460 mg/m <sup>3</sup>	-
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0	S* TWA 50 ppm TWA 238 mg/m <sup>3</sup> STEL 100 ppm STEL 475 mg/m <sup>3</sup>	STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> TWA: 50 ppm TWA: 237 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> STEL: 100 ppm STEL: 475 mg/m <sup>3</sup>	S* STEL: 100 ppm STEL: 474 mg/m <sup>3</sup> TWA: 50 ppm TWA: 237 mg/m <sup>3</sup>	-

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
ETHYL ALCOHOL 64-17-5	-	TWA: 1000 ppm	Skin STEL: 1900 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> STEL: 1300 ppm STEL: 2500 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>
ETHYL ACETATE 141-78-6	-	TWA: 400 ppm	-	TWA: 300 ppm TWA: 1100 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1800 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 540 mg/m <sup>3</sup>
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> Skin	TWA: 50 ppm	TWA: 233 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 240 mg/m <sup>3</sup> STEL: 75 ppm STEL: 360 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> Skin
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
PROPYLENE GLYCOL 57-55-6	-	-	-	TWA: 25 ppm TWA: 79 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 118.5 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 470 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>
ETHYL ALCOHOL 64-17-5	STEL 2000 ppm STEL 3800 mg/m <sup>3</sup> MAK: 1000 ppm MAK: 1900 mg/m <sup>3</sup>	STEL: 1000 ppm STEL: 1920 mg/m <sup>3</sup> MAK: 500 ppm MAK: 960 mg/m <sup>3</sup>	NDS: 1900 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 950 mg/m <sup>3</sup> STEL: 625 ppm STEL: 1187.5 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>
ETHYL ACETATE 141-78-6	STEL 600 ppm STEL 2100 mg/m <sup>3</sup> TWA: 300 ppm TWA: 1050 mg/m <sup>3</sup>	STEL: 800 ppm STEL: 2800 mg/m <sup>3</sup> TWA: 400 ppm TWA: 1400 mg/m <sup>3</sup>	STEL: 600 mg/m <sup>3</sup> TWA: 200 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 550 mg/m <sup>3</sup> STEL: 187.5 ppm STEL: 687.5 mg/m <sup>3</sup>	TWA: 200 ppm STEL: 400 ppm
METHYL N-AMYL KETONE FCC (2-Heptanone) 110-43-0	Skin STEL 100 ppm STEL 473 mg/m <sup>3</sup> TWA: 50 ppm TWA: 237 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 235 mg/m <sup>3</sup>	STEL: 475 mg/m <sup>3</sup> TWA: 238 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 115 mg/m <sup>3</sup> Skin STEL: 37.5 ppm STEL: 143.75 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> Skin

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

## 8.2. Exposure controls

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

**Eye/face protection** Tightly fitting safety goggles.  
**Skin and body protection** Long sleeved clothing. Chemical resistant apron. Antistatic boots. Impervious gloves.  
**Respiratory protection** NIOSH/MSHA approved respiratory protection is required to be worn.

**Environmental Exposure Controls** No information available.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

**Physical state** liquid  
**Appearance** clear to slightly cloudy  
**Odor** creamy vanilla  
**Color** light yellow to amber

#### Property

**pH**  
**Melting/freezing point**  
**Boiling point/boiling range**  
**Flash Point**  
**Evaporation rate**

**Values**  
  
  
 71 °C / 160 °F

#### • Method

No information available  
 No information available  
 FCC Method  
 Closed cup  
 FCC Method

<b>Flammability (solid, gas)</b>		No information available
<b>Flammability Limits in Air</b>		
<b>Upper flammability limit</b>		No information available
<b>lower flammability limit</b>		No information available
<b>Vapor pressure mm Hg 20°C</b>		No information available
<b>Vapor density</b>		No information available
<b>Relative density</b>		No information available
<b>Specific Gravity @ 25C</b>	1.0305 - 1.0605	FCC Method
<b>Specific Gravity @ 20C</b>	1.0335 - 1.0635	FCC Method
<b>Refractive Index</b>	1.4139 - 1.4439	FCC Method
<b>Water solubility</b>		No information available
<b>Solubility in other solvents</b>		No information available
<b>Partition coefficient: n-octanol/water</b>		No information available
<b>Autoignition temperature</b>		No information available
<b>Decomposition temperature</b>		No information available
<b>Viscosity, kinematic</b>		No information available
<b>Viscosity, dynamic</b>		No information available
<b>Explosive properties</b>	No information available	
<b>Oxidizing Properties</b>	No information available	

**9.2. Other information**

<b>Softening point</b>	No information available
<b>Molecular Weight</b>	No information available
<b>VOC Content(%)</b>	No information available
<b>Density VALUE</b>	No information available
<b>Bulk Density VALUE</b>	No information available

**Section 10: STABILITY AND REACTIVITY****10.1. Reactivity**

No data available.

**10.2. Chemical stability**

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact	none.
Sensitivity to Static Discharge	Yes.

**10.3. Possibility of hazardous reactions****Hazardous Reactions**

None under normal processing.

**10.4. Conditions to avoid**

Heat, flames and sparks.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

None under normal use conditions.

**Section 11: TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects****Acute toxicity****Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

<b>Inhalation</b>	There is no data available for this product.
<b>Eye contact</b>	There is no data available for this product.
<b>Skin contact</b>	There is no data available for this product.
<b>Ingestion</b>	There is no data available for this product.

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	14,729.00 mg/kg
<b>ATEmix (dermal)</b>	15,244.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	96,143.72 mg/l

**Unknown Acute Toxicity**

98.982% of the mixture consists of ingredient(s) of unknown toxicity.

13.08 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

15.33 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

98.982 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

98.982 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

96.732 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

**Oral LD50**

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
ETHYL ALCOHOL	7060 mg/kg ( Rat )		124.7 mg/L ( Rat ) 4 h

<b>Skin corrosion/irritation</b>	No information available.
<b>Eye damage/irritation</b>	No information available.
<b>Sensitization</b>	No information available.
<b>Germ Cell Mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>Specific target organ systemic toxicity (single exposure)</b>	No information available.
<b>Specific target organ systemic toxicity (repeated exposure)</b>	No information available.
<b>Target Organ Effects</b>	Blood, Central nervous system, Eyes, Liver, Reproductive system, Respiratory system, Skin.
<b>Aspiration hazard</b>	No information available.

## Section 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

**Ecotoxicity** Harmful to aquatic life

10.37% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
PROPYLENE GLYCOL	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50	10000: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50 Static
ETHYL ALCOHOL	-	12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through	9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static
HEXANOIC ACID (CAPROIC ACID)	-	306 - 334: 96 h Pimephales promelas mg/L LC50 flow-through 88: 96 h Pimephales promelas mg/L LC50 static	22: 24 h water flea mg/L EC50
BUTYRIC ACID	46.7: 72 h Desmodesmus subspicatus mg/L EC50	200: 24 h Lepomis macrochirus mg/L LC50	61.7: 24 h Daphnia magna mg/L EC50
ETHYL ACETATE	3300: 48 h Desmodesmus subspicatus mg/L EC50	220 - 250: 96 h Pimephales promelas mg/L LC50 flow-through 484: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 352 - 500: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	560: 48 h Daphnia magna mg/L EC50 Static
METHYL N-AMYL KETONE FCC (2-Heptanone)	-	126 - 137: 96 h Pimephales promelas mg/L LC50 flow-through	-

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

Chemical Name	log Pow
ETHYL ALCOHOL	-0.32
HEXANOIC ACID (CAPROIC ACID)	1.92
BUTYRIC ACID	0.79
ETHYL ACETATE	0.6
METHYL N-AMYL KETONE FCC (2-Heptanone)	1.98

**12.4. Mobility in soil****Mobility in soil**

No information available.

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

No information available.

**12.6. Other adverse effects**

No information available

## Section 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**



**Waste from residues / unused products** Dispose of in accordance with local regulations.

**Contaminated packaging** Empty remaining contents.

## Section 14: TRANSPORT INFORMATION

### IMDG / IMO

14.1 UN/ID No	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated

### DOT/ADR/RID

14.1 UN/ID No	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated

### ICAO/IATA

14.1 UN/ID No	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

## Section 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### Persistent Organic Pollutants

Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009** Not applicable

#### International Inventories

TSCA	-
DSL/NDSL	-
EINECS/ELINCS	-
ENCS	-
IECSC	-
KECL	-
PICCS	-
AICS	-

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

No information available

**Section 16: OTHER INFORMATION****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of R-phrases referred to under sections 2 and 3**

No information available

**Full text of H-Statements referred to under section 3**

H302 - Harmful if swallowed  
H226 - Flammable liquid and vapor  
H332 - Harmful if inhaled  
H319 - Causes serious eye irritation  
H225 - Highly flammable liquid and vapor  
H336 - May cause drowsiness or dizziness  
H402 - Harmful to aquatic life  
H318 - Causes serious eye damage  
H303 - May be harmful if swallowed  
H311 - Toxic in contact with skin  
EUH066 - Repeated exposure may cause skin dryness or cracking

**Legend**

SVHC: Substances of Very High Concern for Authorization:

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA:	Time weighted average	STEL:	Short term exposure limit
Ceiling:	Maximum limit value:	*	Skin designation

**Revision Date** 21-Mar-2019

**Reason for revision:** Not applicable.

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.**

**WARNING/DISCLAIMER:**

Apex Flavors, Inc.'s products are sold exclusively for use in food and drink for human consumption. These products have not been tested, nor have they been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, and electronic cigarettes or similar devices (collectively "E-Cigarettes"). In supplying this product(s), Apex Flavors, Inc. instructs, and purchasing recipient confirms, that this product(s) will not be used in connection with the manufacture and distribution of E-Cigarettes or any component thereof. Recipients of our products that use them outside of their intended use of food or drink do so at their own risk and without warranty, either expressed or implied, from Apex Flavors, Inc. or its suppliers. The user assumes all liability for loss, injury, damage, or expense resulting from such uses.