



## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Number** 092, 092TTB, 092PGF, 092ICR

**Manufacturer** Apex Flavors, Inc.  
1361 Brass Mill Rd.  
Suite E  
Belcamp, MD 21017  
(410) 565-6600

**Product name** ROOT BEER EXTRACT, NATURAL

**Pure substance/mixture** Mixture

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

**Recommended Use** Not for direct consumption

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

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/ Outside US Chemtel 813-248-0585

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1A
Acute aquatic toxicity	Category 2
Flammable liquids	Category 3

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**  
For the full text of the R-phrases mentioned in this Section, see Section 16

### R-code(s)

R10

### 2.2. Label elements

**Signal Word**

Danger

**Hazard Statements**

H319 - Causes serious eye irritation

H350 - May cause cancer

H401 - Toxic to aquatic life

H226 - Flammable liquid and vapor

**Precautionary Statements**

P201 - Obtain special instructions before use

P281 - Use personal protective equipment as required

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

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

**2.3. Other information****3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Chemical Name	EC-No	CAS-No	Alternate CAS #	Weight %	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
ETHYL ALCOHOL	200-578-6	64-17-5		50-90%	F; R11	Flam. Liq. 2 (H225) Eye Irrit. 1 (H319)	No data available
PROPYLENE GLYCOL	200-338-0	57-55-6		1-5%	-	No data available	No data available
LIMONENE	227-813-5	5989-27-5		<1	R10, XI; R38, XI; R43, N; R50/53;	Aquatic Acute 1 (H400) Skin Sens. 1 (H317) Skin Irrit. 1 (H315) Asp. Tox. 1 (H304) Aquatic Chronic 1 (H410) Flam. Liq. 3 (H226)	No data available

For the full text of the R-phrases mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES****4.1. Description of first aid measures**

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<b>General advice</b>	Immediate medical attention is required Show this material safety data sheet to the doctor in attendance.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>Skin contact</b>	Wash off immediately with plenty of water.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.
<b>Inhalation</b>	Move to fresh air.
<b>Self-protection of the first aider</b>	Remove all sources of ignition

**4.2. Most important symptoms and effects, both acute and delayed****4.3. Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

**5.1. Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

**Extinguishing media which shall not be used for safety reasons**

No information available

**5.2. Special hazards arising from the substance or mixture****Special Hazard**

None

**5.3. Advice for firefighters****Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

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

Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation.

See Section 12 for additional Ecological Information

**6.2. Environmental precautions**

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**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)

## 7. HANDLING AND STORAGE

**7.1. Precautions for safe handling**

Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

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

Keep tightly closed in a dry and cool place. Keep in properly labeled containers.

**7.3 Specific end use(s)**

Exposure scenario N/A

Other Guidelines N/A

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters**

**Exposure limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Chemical Name	European Union	The United Kingdom	France	Spain	Germany
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>	MAK: 500 ppm MAK: 960 mg/m <sup>3</sup> Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m <sup>3</sup> Skin TWA: 500 ppm TWA: 960 mg/m <sup>3</sup>
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>			
LIMONENE 5989-27-5					MAK: 20 ppm MAK: 110 mg/m <sup>3</sup> Ceiling / Peak: 40 ppm Ceiling / Peak: 220 mg/m <sup>3</sup> TWA: 20 ppm TWA: 110 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>
LIMONENE 5989-27-5				TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 50 ppm STEL: 280 mg/m <sup>3</sup>	

Chemical Name	Austria	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	Poland	Norway
ETHYL ALCOHOL 64-17-5	STEL 2000 ppm STEL 3800 mg/m <sup>3</sup>	500 ppm NGV 1000 mg/m <sup>3</sup> NGV	STEL: 1000 ppm STEL: 1920 mg/m <sup>3</sup>	NDS: 1900 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 950 mg/m <sup>3</sup>

	MAK: 1000 ppm MAK: 1900 mg/m <sup>3</sup>		MAK: 500 ppm MAK: 960 mg/m <sup>3</sup>		STEL: 625 ppm STEL: 1187.5 mg/m <sup>3</sup>
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>
LIMONENE 5989-27-5			STEL: 40 ppm STEL: 220 mg/m <sup>3</sup> MAK: 20 ppm MAK: 110 mg/m <sup>3</sup>		TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 175 mg/m <sup>3</sup>

Component	Ireland
ETHYL ALCOHOL 64-17-5 ( 50-90% )	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>
PROPYLENE GLYCOL 57-55-6 ( 1-5% )	TWA: 150 ppm TWA: 470 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>

**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 Protection**

Tightly fitting safety goggles

**Hand Protection**

Protective gloves

**Skin and body protection**

Antistatic boots Wear fire/ flame resistant/ retardant clothing Impervious gloves

**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

**General Hygiene Considerations** When using, do not eat, drink or smoke Provide regular cleaning of equipment, work area and clothing

**Environmental Exposure Controls** No information available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Physical state</b>	liquid	<b>Appearance</b>	clear
<b>Odor</b>	creamy characteristic of root beer	<b>Color</b>	brown
<b>Property</b>	<b>Values</b>	<b>Method</b>	
pH		No information available	
Melting/freezing point		No information available	
Boiling point/boiling range		FCC Method	
Flash Point	24 °C / 76 °F	Closed cup	
Evaporation rate		FCC Method	
Flammability (solid, gas)		No information available	
Flammability Limits in Air		No information available	
Upper flammability limit			
lower flammability limit			
Vapor pressure mm Hg 20°C		No information available	
Vapor density		No information available	
Relative density		No information available	
Specific Gravity @ 25C	0.8974 - 0.9274	FCC Method	
Specific Gravity @ 20C	0.9004 - 0.9304	FCC Method	
Refractive Index	1.3524 - 1.3824	FCC Method	
Water solubility		No information available	
Partition coefficient: n-octanol/water		No information available	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, dynamic		No information available	
<b>Explosive properties</b>	No information available		
<b>Oxidizing Properties</b>	No information available		

### 9.2. Other information

VOC Content(%)	64.232
Molecular Weight	No information available

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

#### 10.2. Chemical stability

Stable under normal conditions

#### 10.3. Possibility of hazardous reactions

#### 10.4. Conditions to avoid

Heat, flames and sparks

#### 10.5. Incompatible materials

No materials to be especially mentioned

#### 10.6. Hazardous decomposition products

None under normal use conditions

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity

Inhalation	There is no data available for this product
Eye contact	There is no data available for this product
Skin contact	There is no data available for this product
Ingestion	There is no data available for this product
Acute toxicity	34.52599999% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 1, 2005):

Oral 7,216.00 mg/kg

Inhalation  
Mist 72,982.85 mg/l

Skin corrosion/irritation	No information available
Eye damage/irritation	No information available
Sensitization	No information available
Germ Cell Mutagenicity	No information available
Carcinogenicity	No information available

Specific target organ systemic toxicity (single exposure) No information available

Specific target organ systemic toxicity (repeated exposure) No information available

Target Organ Effects Blood Central nervous system Eyes Liver Reproductive system Respiratory system Skin

Aspiration hazard No information available

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Ecotoxicity effects Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
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
PROPYLENE GLYCOL	19000: 96 h Pseudokirchneriella	51600: 96 h Oncorhynchus mykiss	10000: 24 h Daphnia magna mg/L

	subcapitata mg/L EC50	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	EC50 1000: 48 h Daphnia magna mg/L EC50 Static
LIMONENE		0.619-0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50	

**12.2. Persistence and degradability**

No information available

**12.3. Bioaccumulative potential**

No information available

Chemical Name	log Pow
ETHYL ALCOHOL	-0.32

**12.4. Mobility in soil**

No information available

**12.5. Results of PBT and vPvB assessment****12.6. Other adverse effects**

Endocrine Disruptor Information .? is a suspected endocrine disruptor

**13. DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

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

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal

**14. TRANSPORT INFORMATION****DOT/ADR**

UN/ID No 1197  
 Proper shipping name EXTRACTS, FLAVOURING, LIQUID  
 Hazard class 3  
 Packing Group III  
 ERG Code 127

**IMDG / IMO**

Proper shipping name EXTRACTS, FLAVOURING, LIQUID  
 Hazard class 3  
 UN/ID No 1197  
 Packing Group III

**ICAO/IATA**

UN/ID No 1197  
 Proper shipping name EXTRACTS, FLAVOURING, LIQUID  
 Hazard class 3



Packing Group

III

## 15. REGULATORY INFORMATION

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

#### WGK Classification

Chemical Name	Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes
ETHYL ALCOHOL 64-17-5	Hazard Class 1
PROPYLENE GLYCOL 57-55-6	Hazard Class 1

#### International Inventories

**All of the components in the product are on the following Inventory lists:** United States of America (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (ECL), China (IECSC), Japan (ENCS), Philippines (PICCS).

<b>TSCA</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>PICCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>AICS</b>	Complies
<b>KECL</b>	Complies

#### Legend

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

### 15.2. Chemical safety assessment

## 16. OTHER INFORMATION

#### Full text of H-Statements referred to under sections 2 and 3

H400 - Very toxic to aquatic life H317 - May cause an allergic skin reaction H315 - Causes skin irritation H304 - May be fatal if swallowed and enters airways H410 - Very toxic to aquatic life with long lasting effects H226 - Flammable liquid and vapor H225 - Highly flammable liquid and vapor H319 - Causes serious eye irritation

**Revision Date** 25-Jan-2018

**Revision Note** Not applicable.

**Revision#** 1.01

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

#### WARNING/DISCLAIMER:

Our ingredients have not been tested, nor have they been determined safe, for inhalation or use in any electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes, or other similar devices (collectively "E-Cigarettes") or in any E-Liquids used with E-Cigarettes. By receiving Apex Flavors, Inc ingredients, the recipient

confirms that they will not use these ingredients in connection with the manufacture and distribution of E-Cigarettes, E-Liquids or any component thereof. WE DISCLAIM, TO THE FULLEST EXTENT PERMITTED BY LAW, ALL WARRANTIES, EXPRESS OR IMPLIED, and disclaim all liability in connection with the use of our ingredients in connection with E-Cigarettes and E-Liquids. All such risks are assumed by you and the user.

**Disclaimer**

Food ingredients that are safe to be consumed in food products may pose hazards if not handled properly. This product is intended to be used in food products and, not intended to be consumed in its present form. The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.