APEX FLAVORS, INC.
home of
SILVER CLOUD
FLAVORS

SAFETY DATA SHEET.

Version 1.01

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

1.1. Product identifier

Number 191

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

Product name BLACK TEA EXTRACT, NATURAL WONF
Pure substance/mixture Mixture

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

Recommended Use No information available

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/ 703-527-3887 outside US

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Serious eye damage/eye irritation	Category 2
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) Flam. Liq. 2 (H225)	No data available
ETHYL ACETATE	Present	141-78-6		<1	F; R11 Xi; R36 R66 R67	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
Hexyl alcohol	203-852-3	111-27-3		<1	Xn; R22	Acute Tox. 4 (H302)	No data available
Furfural	202-627-7	98-01-1		<1	Xn; R21 T; R23/25 Xi; R36/37/38 Carc.Cat.3; R40	Carc. 2 (H351) Eye Irrit. 1 (H319) Skin Irrit. 2 (H316) Acute Tox. 3 (H301) Acute Tox. 4 (H312) Flam. Liq. 4 (H227) Acute Tox. 2 (H330)	No data available
LIMONENE	227-813-5	5989-27-5		NF	R10, XI; R38, XI; R43, N;	Aquatic Acute 1 (H400) Skin Sens. 1 (H317)	No data available

					R50/53;	Skin Irrit. 1 (H315) Asp. Tox. 1 (H304) Aquatic Chronic 1 (H410) Flam. Liq. 3 (H226)	

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

General advice Immediate medical attention is required Show this material safety data sheet to the doctor in attendance.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact Wash off immediately with plenty of water.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Inhalation Move to fresh air.

Self-protection of the first aider 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/m³ TWA: 1000 ppm TWA: 1920 mg/m³	VME: 1000 ppm VME: 1900 mg/m³ VLCT: 5000 ppm VLCT: 9500 mg/m³	VLA-ED: 1000 ppm VLA-ED: 1910 mg/m³	MAK: 500 ppm MAK: 960 mg/m³ Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m³ Skin TWA: 500 ppm TWA: 960 mg/m³
ETHYL ACETATE 141-78-6		STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 1400 mg/m³	TWA: 400 ppm TWA: 1460 mg/m³	TWA: 400 ppm TWA: 1500 mg/m³ Ceiling / Peak: 800 ppm Ceiling / Peak: 3000 mg/m³
Hexyl alcohol 111-27-3					TWA: 50 ppm TWA: 210 mg/m³
Furfural 98-01-1		STEL: 5 ppm STEL: 20 mg/m³ TWA: 2 ppm TWA: 8 mg/m³ Skin	VLCT: 2 ppm VLCT: 8 mg/m³	S* VLA-ED: 2 ppm VLA-ED: 8 mg/m³	Skin
LIMONENE 5989-27-5					MAK: 20 ppm MAK: 110 mg/m³ Ceiling / Peak: 40 ppm Ceiling / Peak: 220 mg/m³ TWA: 20 ppm TWA: 110 mg/m³

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
ETHYL ALCOHOL 64-17-5		TWA: 1000 ppm	Skin STEL: 1900 mg/m³ TWA: 260 mg/m³	TWA: 1000 ppm TWA: 1900 mg/m³ STEL: 1300 ppm STEL: 2500 mg/m³	TWA: 1000 ppm TWA: 1900 mg/m³

ETHYL ACETATE 141-78-6		TWA: 400 ppm		TWA: 300 ppm TWA: 1100 mg/m³ STEL: 500 ppm STEL: 1800 mg/m³	TWA: 150 ppm TWA: 540 mg/m³
Furfural 98-01-1		TWA: 2 ppm		TWA: 2 ppm TWA: 8 mg/m³ STEL: 5 ppm STEL: 20 mg/m³ Skin	TWA: 2 ppm TWA: 7.9 mg/m³ Skin
LIMONENE 5989-27-5				TWA: 25 ppm TWA: 140 mg/m³ STEL: 50 ppm STEL: 280 mg/m³	

Chemical Name	Austria	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	Poland	Norway
ETHYL ALCOHOL 64-17-5	STEL 2000 ppm STEL 3800 mg/m³ MAK: 1000 ppm MAK: 1900 mg/m³	500 ppm NGV 1000 mg/m³ NGV	STEL: 1000 ppm STEL: 1920 mg/m³ MAK: 500 ppm MAK: 960 mg/m³	NDS: 1900 mg/m³	TWA: 500 ppm TWA: 950 mg/m³ STEL: 625 ppm STEL: 1187.5 mg/m³
ETHYL ACETATE 141-78-6	STEL 600 ppm STEL 2100 mg/m³ TWA: 300 ppm TWA: 1050 mg/m³	150 ppm NGV 500 mg/m³ NGV	STEL: 800 ppm STEL: 2800 mg/m³ TWA: 400 ppm TWA: 1400 mg/m³	STEL: 600 mg/m³ TWA: 200 mg/m³	TWA: 150 ppm TWA: 550 mg/m³ STEL: 187.5 ppm STEL: 687.5 mg/m³
Furfural 98-01-1	Skin MAK: 5 ppm MAK: 20 mg/m³	2 ppm NGV 8 mg/m³ NGV	Skin MAK: 2 ppm MAK: 8 mg/m³	NDSCh: 25 mg/m³ NDS: 10 mg/m³ Skin	TWA: 2 ppm TWA: 8 mg/m³ Skin STEL: 4 ppm STEL: 16 mg/m³
LIMONENE 5989-27-5			STEL: 40 ppm STEL: 220 mg/m³ MAK: 20 ppm MAK: 110 mg/m³		TWA: 25 ppm TWA: 140 mg/m³ STEL: 37.5 ppm STEL: 175 mg/m³

Component	Ireland
ETHYL ALCOHOL 64-17-5 (50-90%)	TWA: 1000 ppm TWA: 1900 mg/m³
ETHYL ACETATE 141-78-6 (<1)	TWA: 200 ppm STEL: 400 ppm
Furfural 98-01-1 (<1)	TWA: 2 ppm TWA: 8 mg/m³ STEL: 5 ppm STEL: 20 mg/m³ 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 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

Physical state liquid
Odor characteristic of black tea
Appearance clear
Color light yellow

Property	Values	Method
pH		No information available
Melting/freezing point		No information available
Boiling point/boiling range		FCC Method
Flash Point	25 °C / 77 °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	0.9160 - 0.9450	FCC Method
Specific Gravity @ 20C	0.919 - 0.948	FCC Method
Refractive Index	1.3600 - 1.3850	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

Explosive properties No information available
Oxidizing Properties No information available

9.2. Other information

VOC Content(%) 56.60507
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 34.529696% 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 6,130.00 mg/kg

Inhalation
Mist 76,774.29 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

Chemical Name	European Union
Furfural	Category 3

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
ETHYL ACETATE	3300: 48 h Desmodesmus	220 - 250: 96 h Pimephales	560: 48 h Daphnia magna mg/L

	subspicatus mg/L EC50	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	EC50 Static
Hexyl alcohol		144: 96 h Brachydanio rerio mg/L LC50 static 89.7-106: 96 h Pimephales promelas mg/L LC50 flow-through	201: 24 h Daphnia magna mg/L EC50
Furfural		13.4-19.3: 96 h Pimephales promelas mg/L LC50 static 16.79-26.35: 96 h Pimephales promelas mg/L LC50 flow-through	29: 24 h Daphnia magna mg/L EC50
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
ETHYL ACETATE	0.6
Hexyl alcohol	2.03
Furfural	0.67

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Chemical Name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Furfural	Group III Chemical		

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 EXTRACT, 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	EXTRACT, FLAVOURING, LIQUID
Hazard class	3
Packing Group	III
ERG Code	127

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
ETHYL ACETATE 141-78-6	Hazard Class 1
Hexyl alcohol 111-27-3	Hazard Class 1
Furfural 98-01-1	Hazard Class 2

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), China (IECSC), Japan (ENCS), Philippines (PICCS).

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

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

H302 - Harmful if swallowed H319 - Causes serious eye irritation H225 - Highly flammable liquid and vapor H336 - May cause drowsiness or dizziness 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 H351 - Suspected of causing cancer if inhaled H316 - Causes mild skin irritation H301 - Toxic if swallowed H312 - Harmful in contact with skin H227 - Combustible liquid H330 -

Fatal if inhaled EUH066 - Repeated exposure may cause skin dryness or cracking

Revision Date	13-Jan-2017
Revision Note	Not applicable.
Revision#	1.01

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.

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