



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

1.1. Product identifier

Number 630TTB

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

Product name Sauvignon Blanc Type, Natural Flavor Blend
Pure substance/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 2A
Carcinogenicity	Category 2
Acute aquatic toxicity	Not classified for acute
Flammable liquids	Category 2

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

2.2. Label elements

**Signal Word**

Warning

Hazard Statements

H319 - Causes serious eye irritation

H351 - Suspected of causing cancer

H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P281 - Use personal protective equipment as required

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	Present	64-17-5		30-50%	F; R11	Eye Irrit. 1 (H319) (EFFA) Flam. Liq. 2 (H225) (EFFA) Flam. Liq. 2 (H225)	No data available
GLYCERINE	Present	56-81-5		20-30%	-	No data available	No data available
ISOAMYL ALCOHOL	204-633-5	123-51-3		1-5%	-	Flam. Liq. 3 (H226)(EFFA) Acute Tox. 4 (H332)(EFFA)	No data available
ETHYL ACETATE	Present	141-78-6		1-5%	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
ACETALDEHYDE	200-836-8	75-07-0		1-5%	F+; R12 Xi; R36/37 Carc.Cat.3; R40	Carc. 2 (H351) (EFFA) Eye Irrit. 1 (H319) (EFFA) Flam. Liq. 1 (H224) (EFFA) Flam. Liq. 1 (H224) STOT SE 3 (H335) Carc. 2 (H351) Eye Irrit. 2 (H319)	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

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Inhalation	Move to fresh air.

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

Ensure adequate ventilation.

See Section 12 for additional Ecological Information

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

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.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

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 ³ TWA: 1000 ppm TWA: 1920 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 5000 ppm STEL: 9500 mg/m ³	STEL: 1000 ppm STEL: 1910 mg/m ³	TWA: 500 ppm TWA: 960 mg/m ³ Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m ³ Skin
GLYCERINE 56-81-5		STEL: 30 mg/m ³ TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 50 mg/m ³ Ceiling / Peak: 100 mg/m ³
ISOAMYL ALCOHOL 123-51-3		STEL: 125 ppm STEL: 458 mg/m ³ TWA: 100 ppm TWA: 366 mg/m ³	TWA: 100 ppm TWA: 360 mg/m ³	STEL: 125 ppm STEL: 458 mg/m ³ TWA: 100 ppm TWA: 366 mg/m ³	TWA: 20 ppm TWA: 73 mg/m ³ Ceiling / Peak: 80 ppm Ceiling / Peak: 292 mg/m ³
ETHYL ACETATE 141-78-6		STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 1400 mg/m ³	TWA: 400 ppm TWA: 1460 mg/m ³	TWA: 400 ppm TWA: 1500 mg/m ³ Ceiling / Peak: 800 ppm Ceiling / Peak: 3000 mg/m ³
ACETALDEHYDE 75-07-0		STEL: 50 ppm STEL: 92 mg/m ³ TWA: 20 ppm TWA: 37 mg/m ³	TWA: 100 ppm TWA: 180 mg/m ³	STEL: 25 ppm STEL: 46 mg/m ³	TWA: 50 ppm TWA: 91 mg/m ³ Ceiling / Peak: 50 ppm Ceiling / Peak: 91 mg/m ³ Skin

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
ETHYL ALCOHOL 64-17-5		TWA: 1000 ppm	Skin STEL: 1900 mg/m ³ TWA: 260 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 1300 ppm STEL: 2500 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³
GLYCERINE 56-81-5		TWA: 10 mg/m ³		TWA: 20 mg/m ³	
ISOAMYL ALCOHOL 123-51-3		STEL: 125 ppm TWA: 100 ppm		TWA: 100 ppm TWA: 370 mg/m ³ STEL: 150 ppm STEL: 550 mg/m ³	TWA: 100 ppm TWA: 360 mg/m ³
ETHYL ACETATE 141-78-6		TWA: 400 ppm		TWA: 300 ppm TWA: 1100 mg/m ³ STEL: 500 ppm STEL: 1800 mg/m ³	TWA: 150 ppm TWA: 540 mg/m ³

ACETALDEHYDE 75-07-0		Ceiling: 25 ppm	STEL: 92 mg/m ³ TWA: 37 mg/m ³	STEL: 25 ppm STEL: 46 mg/m ³	Ceiling: 25 ppm Ceiling: 45 mg/m ³
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Chemical Name	Austria	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	Poland	Norway
ETHYL ALCOHOL 64-17-5	STEL 2000 ppm STEL 3800 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³	500 ppm NGV 1000 mg/m ³ NGV	STEL: 1000 ppm STEL: 1920 mg/m ³ TWA: 500 ppm TWA: 960 mg/m ³	TWA: 1900 mg/m ³	TWA: 500 ppm TWA: 950 mg/m ³ STEL: 625 ppm STEL: 1187.5 mg/m ³
GLYCERINE 56-81-5			STEL: 100 mg/m ³ TWA: 50 mg/m ³	TWA: 10 mg/m ³	
ISOAMYL ALCOHOL 123-51-3	STEL 200 ppm STEL 720 mg/m ³ TWA: 100 ppm TWA: 360 mg/m ³		STEL: 80 ppm STEL: 292 mg/m ³ TWA: 20 ppm TWA: 73 mg/m ³	STEL: 400 mg/m ³ TWA: 200 mg/m ³	TWA: 50 ppm TWA: 180 mg/m ³ STEL: 75 ppm STEL: 225 mg/m ³
ETHYL ACETATE 141-78-6	STEL 600 ppm STEL 2100 mg/m ³ TWA: 300 ppm TWA: 1050 mg/m ³	150 ppm NGV 500 mg/m ³ NGV	STEL: 800 ppm STEL: 2800 mg/m ³ TWA: 400 ppm TWA: 1400 mg/m ³	STEL: 600 mg/m ³ TWA: 200 mg/m ³	TWA: 150 ppm TWA: 550 mg/m ³ STEL: 187.5 ppm STEL: 687.5 mg/m ³
ACETALDEHYDE 75-07-0	STEL 50 ppm STEL 90 mg/m ³ TWA: 50 ppm TWA: 90 mg/m ³ Ceiling 50 ppm Ceiling 90 mg/m ³	25 ppm NGV 45 mg/m ³ NGV	STEL: 50 ppm STEL: 90 mg/m ³ TWA: 90 mg/m ³ TWA: 50 ppm	: 45 mg/m ³ TWA: 5 mg/m ³	TWA: 25 ppm TWA: 45 mg/m ³ STEL: 37.5 ppm STEL: 67.5 mg/m ³

Component	Ireland
ETHYL ALCOHOL 64-17-5 (30-50%)	STEL: 1000 ppm
GLYCERINE 56-81-5 (20-30%)	TWA: 10 mg/m ³
ISOAMYL ALCOHOL 123-51-3 (1-5%)	TWA: 100 ppm TWA: 360 mg/m ³ STEL: 125 ppm STEL: 450 mg/m ³
ETHYL ACETATE 141-78-6 (1-5%)	TWA: 200 ppm STEL: 400 ppm
ACETALDEHYDE 75-07-0 (1-5%)	TWA: 25 ppm TWA: 45 mg/m ³ STEL: 25 ppm STEL: 45 mg/m ³

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 Long sleeved clothing
Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	liquid	Appearance	clear
Odor	characteristic of white wine	Color	Colorless to light yellow.

<u>Property</u>	<u>Values</u>	<u>Method</u>
pH		No information available
Melting/freezing point		No information available
Boiling point/boiling range		FCC Method
Flash Point	20 °C / 68 °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	0.9701 - 0.9901	FCC Method
Specific Gravity @ 20C	0.9731 - 0.9931	FCC Method
Refractive Index	1.387 - 1.407	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(%)	72.7999992370605
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	20.28% 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	16,079.00 mg/kg
Dermal	10,957.00 mg/kg
Mist	400.96 mg/l
Vapor	199.00 mg/l

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
ETHYL ALCOHOL			124.7 mg/L (Rat) 4 h
GLYCERINE		10 g/kg (Rabbit)	570 mg/m ³ (Rat) 1 h
ISOAMYL ALCOHOL	1300 mg/kg (Rat)	3970 µL/kg (Rabbit)	
ETHYL ACETATE	5620 mg/kg (Rat)	20 mL/kg (Rabbit)	
ACETALDEHYDE	1930 mg/kg (Rat)		

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 Kidney 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 2: 48 h Daphnia magna mg/L EC50 Static
GLYCERINE		51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static	500: 24 h Daphnia magna mg/L EC50
ISOAMYL ALCOHOL	493: 72 h Desmodesmus subspicatus mg/L EC50 181: 96 h Desmodesmus subspicatus mg/L EC50	700: 96 h Salmo gairdneri mg/L LC50 static	260: 48 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
ACETALDEHYDE	237 - 249: 120 h Nitzschia linearis mg/L EC50	28.0 - 34.0: 96 h Pimephales promelas mg/L LC50 flow-through 53: 96 h Lepomis macrochirus mg/L LC50 static 1.8 - 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 39.8 - 46.8: 96 h Pimephales promelas mg/L LC50 static	3.64 - 6.15: 48 h Daphnia magna mg/L EC50 Static 48.3: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

Chemical Name	log Pow
ETHYL ALCOHOL	-0.32
GLYCERINE	-1.76
ISOAMYL ALCOHOL	1.28
ETHYL ACETATE	0.6
ACETALDEHYDE	0.5

12.4. Mobility in soil

No information available

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

IMDG / IMO

Proper shipping name FLAMMABLE LIQUID, N.O.S (ACETALDEHYDE, ETHYL BUTYRATE)
Hazard class 3
UN/ID No 1993
Packing Group II

ICAO/IATA

UN/ID No 1993
Proper shipping name FLAMMABLE LIQUID, N.O.S (ACETALDEHYDE, ETHYL BUTYRATE)
Hazard class 3
Packing Group II
ERG Code 128

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
GLYCERINE 56-81-5	Hazard Class 1
ISOAMYL ALCOHOL 123-51-3	Hazard Class 1
ETHYL ACETATE 141-78-6	Hazard Class 1
ACETALDEHYDE 75-07-0	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).

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

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 H351 - Suspected of causing cancer if inhaled H224 - Extremely flammable liquid and vapor H335 - May cause respiratory irritation EUH066 - Repeated exposure may cause skin dryness or cracking

Revision Date	21-Oct-2015
Revision Note	Not applicable.
Revision#	1

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

WARNING/DISCLAIMER:

The ingredients/flavors provided by Trilogy have not been tested, nor have they been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes or other similar devices (collectively "E-Cigarettes"). In supplying ingredients/flavors, Trilogy instructs, and by receiving such ingredients/flavors recipient confirms, that the ingredients/flavors will not be used in connection with the manufacture and distribution of E-Cigarettes or any component thereof.

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