APEX FLAVORS, INC.

SAFETY DATA SHEET.



Version 1

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

1.1. Product identifier

Number 539BEV

Manufacturer Apex Flavors, Inc.

1371 Brass Mill Rd.

Suite A

Belcamp, MD 21017 (410) 565-6600

Product name Hibiscus Type, Natural Flavor Blend

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

Flammable liquids Category 4

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

H227 - Combustible liquid

Precautionary Statements

P403 + P235 - Store in a well-ventilated place. Keep cool

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

P280 - Wear protective gloves/ eye protection/ face protection

2.3. Other information

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	EC-No	CAS-No	Alternate CAS #	Weight %	Classificatio n according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
PROPYLENE GLYCOL	200-338-0	57-55-6		50-90%	1	No data available	No data available
ACETIC ACID	Present	64-19-7		1-5%		Skin Corr. 1A (314) (EFFA) Eye Dam. 1 (H318) (EFFA) Flam. Liq. 3 (H226)(EFFA) Skin Corr. 1A (H314) Eye Dam. 1 (H318) Skin Corr. 1A (H314) 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

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

Revision Date 10-May-2016

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

See Section 12 for additional Ecological Information

6.2. Environmental precautions

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.

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)

N/A **Exposure scenario 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
PROPYLENE GLYCOL		STEL: 450 ppm STEL:			
57-55-6		1422 mg/m ³ STEL: 30			
		mg/m³			
		TWA: 150 ppm TWA:			
		474 mg/m ³ TWA: 10			
		mg/m³			
ACETIC ACID	TWA 10 ppm		STEL: 10 ppm	STEL: 15 ppm	TWA: 10 ppm
64-19-7	TWA 25 mg/m ³		STEL: 25 mg/m ³	STEL: 37 mg/m ³	TWA: 25 mg/m ³
	_		_	TWA: 10 ppm	Ceiling / Peak: 20 ppm
				TWA: 25 mg/m ³	Ceiling / Peak: 50
				_	mg/m³

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
ACETIC ACID		STEL: 15 ppm	TWA: 25 mg/m ³	TWA: 5 ppm	TWA: 10 ppm
64-19-7		TWA: 10 ppm		TWA: 13 mg/m ³	TWA: 25 mg/m ³
		TWA: 25 mg/m ³		STEL: 10 ppm	
				STEL: 25 mg/m ³	

Chemical Name	Austria	Sweden -	Switzerland	Poland	Norway
		Occupational			-
		Exposure Limits -			
		TLVs (LLVs)			

PROPYLENE GLYCOL 57-55-6					TWA: 25 ppm TWA: 79 mg/m³ STEL: 37.5 ppm STEL: 118.5 mg/m³
ACETIC ACID	STEL 20 ppm	5 ppm NGV	STEL: 20 ppm	STEL: 30 mg/m ³	TWA: 10 ppm
64-19-7	STEL 50 mg/m ³	13 mg/m ³ NGV	STEL: 50 mg/m ³	TWA: 15 mg/m ³	TWA: 25 mg/m ³
	TWA: 10 ppm		TWA: 10 ppm		STEL: 20 ppm
	TWA: 25 mg/m ³		TWA: 25 mg/m ³		STEL: 37.5 mg/m ³

Component	Ireland
PROPYLENE GLYCOL	TWA: 150 ppm TWA: 470 mg/m³ TWA: 10 mg/m³
57-55-6 (50-90%)	
ACETIC ACID	TWA: 10 ppm
64-19-7 (1-5%)	TWA: 25 mg/m ³
	STEL: 15 ppm
	STEL: 37 mg/m ³

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration No inform

(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

Revision Date 10-May-2016

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical stateliquidAppearanceclearOdorfruity characteristic of cranberryColorcolorless

<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

Boiling point/boiling range FCC Method Flash Point > 200 °F Closed cup Evaporation rate FCC Method

Flammability (solid, gas)

Flammability Limits in Air

No information available
No information available

Upper flammability limit lower flammability limit

Vapor pressure mm Hg 20°CNo information availableVapor densityNo information available

Relative density

Specific Gravity @ 25C

Specific Gravity @ 20C

Not Tested

No information available

FCC Method

FCC Method

Specific Gravity @ 20C Not Tested FCC Method
Refractive Index 1.4048 – 1.4248 FCC Method
Water solubility No information available

Partition coefficient: n-octanol/water

Autoignition temperature

Decomposition temperature

Viscosity, dynamic

No information available
No information available
No information available
No information available

Explosive propertiesNo information available
Oxidizing Properties
No information available

9.2. Other information

VOC Content(%) 73.370000895187 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

There is no data available for this product Eve contact

Skin contact There is no data available for this product

There is no data available for this product Ingestion

Acute toxicity 23.067% 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 15,604.00 mg/kg 12,670.00 mg/kg **Dermal**

Inhalation

Mist 6.42 mg/l

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
PROPYLENE GLYCOL	20000 mg/kg(Rat)	20800 mg/kg (Rabbit)	
ACETIC ACID	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat)4 h

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 Eyes Respiratory system Skin Teeth

No information available **Aspiration hazard**

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
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
ACETIC ACID		79: 96 h Pimephales promelas mg/L LC50 static 75: 96 h Lepomis macrochirus mg/L LC50 static	65: 48 h Daphnia magna mg/L EC50 Static

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

Chemical Name	log Pow
ACETIC ACID	-0.31

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 Not regulated

IMDG / IMO Not regulated

<u>ICAO/IATA</u> Not regulated

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
PROPYLENE GLYCOL 57-55-6	Hazard Class 1
ACETIC ACID 64-19-7	Hazard Class 1

International Inventories

All of the components in the product are on the following Inventory lists: No information available.

TSCA -

EINECS/ELINCS -

DSL/NDSL PICCS ENCS IECSC AICS 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

H318 - Causes serious eye damage H226 - Flammable liquid and vapor H314 - Causes severe skin burns and eye damage

Revision Date 10-May-2016

Revision Note Not applicable.

Revision# 1

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.

Disclaimer

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.

. ugo or o