SAFETY DATA SHEET

1. Identification

Product Identifier	**Pina Colada**
Other means of Identification	Flavor
Recommended use	Not available
Recommended restriction	Not known
Manufacturer/Importer/Supplier/Distributor Information:	
Manufacturer Company Name	RENAISSANCE FLAVORS INTERNATIONAL
Address	120 Nashdene Road, Scarborough, ON, Canada M1V 2W3
Telephone	Not available
E-mail	Not available
Emergency phone number	Not available
Supplier	See above.

2. Hazard Identification

Physical Hazards	Not Classified	
Health Hazards	Skin Sensitization	Category 1
Environmental Hazards	Not Classified	

Label elements	
Signal word	Warning
Hazard statement	May cause an allergic skin reaction.
Precautionary statement	
Prevention	Avoid breathing dust/fume/gas/mist/vapours/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.
Response	IF on SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Store	None.
Disposal	Dispose container in accordance with local, regional, national and international regulation.
Other Hazards	None known.
Supplemental Information	None.

SAFETY DATA SHEET

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and Synonyms	CAS number	%
Maltol		118-71-8	0.1-1*%
Ethyl Alcohol		64-17-5	1-5*%
Acetic Acid		64-19-7	0.1-1*%
Butyl Acetate		123-86-4	0.1-1*%
Lemon Oil		8008-56-8	0.1-1*%
Propylene Glycol		57-55-6	80-100* %

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments *CANADA GHS: The exact percentage(concentration) of composition has been withheld As a trade secret.

4. First-Aid Measures

Inhalation If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Skin Contact Wash with plenty of water. If skin irritation /rash occur: Get medical attention. Take off contaminated clothing and wash it before reuse.

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion Immediately call a POISON CENTER or doctor. Rinse mouth. Do not induce vomiting.

Most important Symptoms/ Effects acute and delayed Symptoms may include eye irritation, tearing, redness, swelling. May cause an allergic skin reaction: Dermatitis, Rash.

Indication of immediate medical attention and special treatment needed Symptoms may be delayed.

General Information If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire-Fighting Measures

Suitable extinguishing media Alcohol resistant foam. Dry powder. Carbon dioxide.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread fire.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Hazardous Combustion products May include and are not limited to Oxides of carbon.

Special protective equipment and Precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn.

Fire fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials

General Fire Hazards	Flammable liquid and vapor.

6. Accidental Release Measures

Personal precautions, Protective equipment and Emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination. For waste disposal, see the section 13 of SDS.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Avoid contact with eyes, skin and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Pregnant or breastfeeding women must not handle this product. Avoid prolonged exposure. Observe good industrial hygiene practices. Wash hands thoroughly after handling.
Conditions for safe storage, including any compatibilities	Store in tightly closed container. Store away from incompatible material (see section 10 of the SDS). Keep out of reach of children.

8. Exposure Controls/ Personal Protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910. 1000)

Material	Type	Value
ACETIC ACID (CAS 64-19-7)	PEL	25 mg/m3
		10 ppm
BUTYL ACETATE (CAS 123-86-4)	PEL	710 mg/m3
		150 ppm
ETHYL ALCOHOL (CAS 64-17-5)	TWA	1000 ppm
	TWA	1900 mg/m3

US. ACGIH Threshold Limit Values

Material	Type	Value	Form
ACETIC ACID (CAS 64-19-7)	STEL	15 ppm	
	TWA	10 ppm	
BUTYL ACETATE (CAS 123-86-4)	STEL	150 ppm	
	TWA	50 ppm	

ETHYL ALCOHOL (CAS 64-17-5)	STEL	1000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
ACETIC ACID (CAS 64-19-7)	STEL	37 mg/m3
		15 ppm
	TWA	25 mg/m3
		10 ppm
BUTYL ACETATE (CAS 123-86-4)	STEL	950 mg/m3
		200 ppm
	TWA	710 mg/m3
		150 ppm
ETHYL ALCOHOL (CAS 64-17-5)	IDLH	3300 ppm
	TWA	1000 ppm
	TWA	1900 mg/m3

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Material	Type	Value
ETHYL ALCOHOL (CAS 64-17-5)	TWA	1000 ppm
		1880 mg/m3

Canada. British Columbia OELs (Occupational Exposure Limits for Chemical substances, Occupational Health and Safety Regulations 296/97, as amended)

Material	Type	Value
ETHYL ALCOHOL (CAS 64-17-5)	STEL	1000 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety and Health Act)

Material	Type	Value
ETHYL ALCOHOL (CAS 64-17-5)	STEL	1000 ppm

Canada. Ontario OELs (Control of Exposure to Biological or Chemical Agents)

Material	Type	Value
ETHYL ALCOHOL (CAS 64-17-5)	STEL	1000 ppm

Canada. Quebec OELs (Ministry of Labor- Regulation respecting Occupational Health and Safety)

Material	Type	Value
ETHYL ALCOHOL (CAS 64-17-5)	STEL	1000 ppm

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Material	Type	Value
ETHYL ALCOHOL (CAS 64-17-5)	15-minute	1250 ppm
	8-hour	1000 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/Face protection Wear safety glasses with side shields.

Skin protection

Hand protection Rubber gloves. Confirm with a reputable supplier first.

Other As required by employer code.

Respiratory protection Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards Not applicable.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practises. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance Liquid

Physical state Liquid

Form Liquid

Colour Colour vary from colorless to light yellow

Odour Generally the odour reflects the flavour on the manufacturing label

Odour Threshold Not available

pH Not available

Melting/Freezing point Not available

Initial boiling point and range Not available

Flash point Not available

Evaporation rate Not available

Flammability (solid, gas) Not available

Upper/Lower Flammability or Explosive Limits

Flammability limit – lower (%) Not available

Flammability limit – upper (%) Not available

Explosive limit – lower (%) Not available

Explosive limit – upper (%) Not available

Vapour pressure Not available

Vapour density Not available

Relative density Not available

Solubility(ies)

Solubility (water)	Soluble or miscible in water
Partition coefficient(n-octanol/water)	Not available
Auto-Ignition Temperature	Product is not self-igniting
Decomposition temperature	Not available
Viscosity	Not available
Other Information	
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing

10. Stability and Reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of Hazardous Reactions	Hazardous polymerization doe not occur.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and ignition sources. Do not mix with other chemicals.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon

11. Toxicological Information

Information on likely routes of exposure

Inhalation	Not available.
Skin contact	Not available
Eye contact	Not available.
Ingestion	Not available.

Components	**Species**	**Test Results**
Acetic Acid (CAS 64-19-7)		
Acute		
Dermal		
LD50	Rabbit	1100 mg/kg
Oral		
LD50	Rat	3450 mg/kg
LD50	Rat	6600 mg/kg
Butyl Acetate (CAS 123-86-4)		
Acute		
Dermal		
LD50	Rabbit	> 17600 mg/kg
Inhalation		
LC50	Rat	> 21 mg/l, 4 hours
Ethyl Alcohol (CAS 64-17-5)		
Acute		

Oral

LD50	Dog	5.5g/kg, HSDB
	Guinea Pig	5600 mg/kg, HSDB
	Monkey	6000 mg/kg, ECHA
	Mouse	10,500 mL/kg, ECHA
		3450 mg/kg, SAX
	Pig	>5000 mg/kg, ECHA
	Rat	10,470 mg/kg, ECHA
		7800 mL/kg, ECHA

Maltol (CAS 118-718-8)

Acute

Oral

LD50	Rat	1440 mg/kg

Skin corrosion/ irritation	Not available.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Not available.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	May cause cancer. See below.

Canada – Manitoba OELs: carcinogenicity

Ethyl Alcohol (CAS 64-17-5)	Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethyl Alcohol (CAS 64-17-5)	Volume 44, Volume 96, Volume 100E
	Volume 96, Volume 100E

Reproductive Toxicity	Not available.
Specific target organ toxicity-Single exposure	Not classified.
Specific target organ toxicity-Repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological Information

Ecotoxicity	See below.

Ecotoxicological data

Components		Species	Test Result
Acetic Acid (CAS 64-19-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	65 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	75 mg/l, 96 hours
Butyl Acetate (CAS 123-86-4)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	> 17 - < 19 mg/l, 96 hours
Acute			
Algae	EC50	Green algae (Desmodesmus subspicatus)	674.7 mg/l, 72 hours
Crustacea	LC50	Water flea (Daphnia magna)	205 mg/l, 24 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	100 mg/kg, 96 hours
Fish	LC50	Oncorhynchus mykiss	213 mg/l, 96 hours

Persistence and Degradability	No data is available on degradability of any ingredients in the mixture.
Bio accumulative potential	No data available
Mobility in Soil	Not available.
Mobility in General	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal Instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Local Disposal Regulations	Dispose in accordance with all applicable regulations.
Hazardous Waste Code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues/ unused products	Empty containers/liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal Instructions).
Contaminated Packaging	Since emptied containers may retain product inside, follow label warnings even after container is emptied. Empty containers should be taken to approved waste handling site for recycling or disposal.

14. Transport Information

General	Canada: TDG Proof of classification: Classification Method: Classified as per Part 2, Sections 2.1-2.8 of the Transport of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

Transportation of Dangerous Goods (TDG – Canada)

Basic shipping requirements:	
UN Number	UN1993
Proper Shipping Name	FLAMMABLE LIQUID, N.O.S.
Technical Name	Ethanol

Hazard Class	3
Packing Group	III
Special Provisions	16, 150

15. Regulatory Information

Canadian Federal Regulations This product has been classified in accordance with the hazard criteria of the HPR and SDS contains all the information required by the HPR.

Canada NPRI VOCs with Additional Reporting Requirements: Mass Reporting Threshold/ Identification Number

Export Control List (CEPA 1999, Schedule 3)	Not listed.
Greenhouse Gases	Not listed.
Precursor Control Regulated	Not regulated.
WHMIS	Controlled
International Regulations	Controlled

Inventory status

Country(s) or Region	**Inventory Name**	**on Inventory (Yes/No)***
Canada	Domestic Substances List (DSL)	No
Canada	Non- Domestic Substances List (NDSL)	No

*****A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

16. Other Information

Abbreviations and Acronyms:

GHS – Globally Harmonizes System on classification and labeling
USP – United States Pharmacopeia
OSHA – Occupational Safety and Health Administration
OEL – Occupational Exposure Limit
NIOSH – National Institute of Occupational Safety and Health
DSL – Domestic Substances List Canada
TSCA – Toxic Substances Control Act - USA
RCRA – Resource Conservation and Recovery Act
CERCLA – Comprehensive Environmental Response, Compensation and Liability Act

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Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge or was obtained from sources which we believe are reliable. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal and is provided without any warranty regarding its correctness. The information cannot be transferred to other products. In the case of mixing the product with other products, or in the case of processing, the information on

this safety data sheet is not necessarily valid for the new made-up material. For the above-mentioned reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out or in any way connected with the handling, storage, use or disposal of the product.