In accordance with the requirements of US 29 CFR Parts 1910, 1915, and 1926.



TasteEssentials(TM) Nat Grapefruit Flavor WONF

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION Product information

Sales No. : FD-300-793-9

TasteEssentials(TM) Nat Grapefruit Flavor WONF

RM0005120

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

Relevant identified uses of : Flavouring for foodstuffs. Not for retail sale

Intended Use Flavours

Company

Givaudan Flavors Corp. 1199 Edison Drive CINCINNATI OH 45216

UNITED STATES OF AMERICA

+12152070061 : +18669280789

Emergency telephone

number

Please refer to section 16 for a full list of emergency phone numbers.

SECTION 2. HAZARDS IDENTIFICATION

Classification according to HCS 2012 (29 CFR Parts 1910, 1915, and 1926)

Flammable liquids, Category 3

Eye irritation, Category 2A

Skin sensitisation, Category 1

Specific target organ toxicity - single

H226: Flammable liquid and vapour.

H319: Causes serious eye irritation.

H317: May cause an allergic skin reaction.

H336: May cause drowsiness or dizziness.

exposure, Category 3, Central nervous

system

Label elements

Labelling (REGULATION 29 CFR Parts 1910, 1915, and 1926).

Hazard pictograms :





Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.

Administrative information:

Report Information: SDS_US/EN/GHS_SDS_NA_REGION/08

In accordance with the requirements of US 29 CFR Parts 1910, 1915, and 1926.

Givaudan

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	11047	Manager and allowed a bloom and an
	H317	May cause an allergic skin reaction.
	H319	Causes serious eye irritation.
	H336	May cause drowsiness or dizziness.
Precautionary statemen	ts : Prevention:	
,	P210	Keep away from heat/sparks/open
		flames/hot surfaces. No smoking.
	P233	Keep container tightly closed.
	P240	Ground/bond container and receiving
	. – . •	equipment.
	P241	Use explosion-proof electrical/ ventilating/
		lighting/ equipment.
	P242	Use only non-sparking tools.
	P243	Take precautionary measures against static
	1 243	discharge.
	P261	Avoid breathing dust/ fume/ gas/ mist/
	1 201	vapours/ spray.
	P264	
	P271	Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated
	P2/1	area.
	P272	
	P272	Contaminated work clothing should not be
	Dago	allowed out of the workplace.
	P280	Wear protective gloves/ eye protection/ face
	Deenenee	protection.
	Response:	D252 IF ON SKIN (or boir): Take off
	P303 + P361 + F	,
		immediately all contaminated clothing.
	D204 - D240 - I	Rinse skin with water/shower.
	P304 + P340 + F	· · · · · · · · · · · · · · · · · · ·
		air and keep comfortable for breathing. Call
		a POISON CENTER/doctor if you feel
	D205 D254 I	unwell.
	P305 + P351 + F	P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
		lenses, if present and easy to do. Continue
	P333 + P313	rinsing. If skin irritation or rash occurs: Get medical
	F333 + F313	advice/ attention.
	P337 + P313	If eye irritation persists: Get medical advice/
	1 337 + 1 313	attention.
	P363	Wash contaminated clothing before reuse.
	P370 + P378	In case of fire: Use dry sand, dry chemical
	1370+1370	or alcohol-resistant foam to extinguish.
	Storage:	or alcohol-resistant roam to extinguism.
	P403 + P233	Store in a well-ventilated place. Keep
	1 403 1 1 233	container tightly closed.
	P403 + P235	Store in a well-ventilated place. Keep cool.
	P405	Store locked up.
	Disposal:	otoro tookea ap.
	P501	Dispose of contents/ container to an
	. 551	2.5p 300 of contonts, container to an

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approved waste disposal plant.

Hazards not Otherwise Classified.

This material may have the potential to be ignited by static electricity during handling or processing. Use proper grounding techniques when handling this product to avoid electrostatic charges. A detailed static evaluation is recommended for liquid handling/processing operation to determine the potential for generating and accumulating static charge. Reference NFPA 77 "Recommended Practice on Static Electricity" for further safe handling practices.

Please note:Mixtures have not been tested for health hazards. The health hazard information presented is provided in accordance with US 29 CFR 1910.1200 and is based on the testing of individual components which have been shown to cause or may cause these health effects when tested at higher concentrations or at full strength.

Ingredients with unknown acute toxicity.:

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: **0** %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Component	CAS-No.	Concentration [%]
2-propanol	67-63-0	20.00 - 30.00
propane-1,2-diol	57-55-6	10.00 - 20.00
Benzenemethanol	100-51-6	1.00 - 10.00
(R)-1-methyl-4-(1-methylethenyl)-cyclohexene	5989-27-5	1.00 - 10.00

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

First aid measures

Description of first aid measures

General advice : Consult physician or Poison Control Center. The National

Hotline for US Poison Control Centers is 1.800.222.1222;

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www.1-800-222-1222.info/poisonHelp.asp

If inhaled : Get to fresh air immediately.

Consult Poison Control Center or physician if any symptoms

develop.

In case of skin contact : Rinse immediately with plenty of water for at least 15 minutes.

If skin irritation occurs, seek medical advice/attention.

Remove contaminated clothing and shoes.

Immediately seek medical attention if chemical entered ear

canal.

When symptoms persist or in all cases of doubt seek medical

advice.

In case of eye contact : Remove contact lenses.

Immediately flush eyes for at least 15 minutes. Get medical

attention.

If swallowed : Do NOT induce vomiting.

Immediately consult Poison Control Center or physician.

Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction.

Causes serious eye irritation.

May cause drowsiness or dizziness.

Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media : Water spray

Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

: High volume water jet

Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Do not allow run-off from fire fighting to enter drains or water

courses.

Exposure to decomposition products may be a hazard to

health.

Do not use a solid water stream as it may scatter and spread

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fire.

Cool closed containers exposed to fire with water spray.

Advice for firefighters

Special protective equipment

for firefighters

: Wear self-contained breathing apparatus for firefighting if

necessary.

Further information : Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition.

Evacuate personnel to safe areas.

Keep people away from and upwind of spill/leak.

In the case of vapour formation use a respirator with an approved filter.

Use personal protective equipment as required.

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Material can create slippery conditions.

Environmental precautions

Retain and dispose of contaminated wash water.

The product should not be allowed to enter drains, water courses or the soil.

Dispose of in accordance with local regulations.

Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

Remove all sources of ignition.

Use only non-sparking tools.

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Keep in suitable, closed containers for disposal.

Clean contaminated floors and objects thoroughly while observing environmental regulations.

Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

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In accordance with the requirements of US 29 CFR Parts 1910, 1915, and 1926.



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SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.

Open drum carefully as content may be under pressure. Keep away from heat/sparks/open flames/hot surfaces. No

smoking.

When using do not eat, drink or smoke.

Advice on protection against

fire and explosion

: Use explosion-proof equipment.

Keep away from heat and sources of ignition.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Keep container tightly closed in a dry and well-ventilated

place.

Store in cool place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage.

Provide adequate precautions, such as electrical grounding

and bonding, or inert atmospheres.

Further information on storage conditions

: Ambient / 10-30°C (50 -85°F) Preferably full, hermetically sealed

Advice on common storage

: no data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Components	CAS-No.:	Type:	Value :	Basis :	Revision:
2-propanol	67-63-0	TWA	200 ppm	ACGIH	2013-03-01
	CNS impair: Co	entral Nervou	s System impair	ment	
	URT irr: Upper Respiratory Tract irritation eye irr: Eye irritation BEI: Substances for which there is a Biological Exposure Index or Indices (see BEI® section)				
					ndex or
	,				
2-propanol	67-63-0	STEL	400 ppm	ACGIH	2013-03-01
	CNS impair: Central Nervous System impairment				
	URT irr: Upper Respiratory Tract irritation				
	eye irr: Eye irritation				
BEI: Substances for which there is a Biological Exposure Index				ndex or	
	Indices (see BEI® section)				
1					

Administrative information:

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2-propanol	67-63-0	TWA	400 ppm NIOSH 980 mg/m3 REL		2013-10-08
2-propanol	67-63-0	ST	500 ppm NIOSH 1,225 mg/m3 REL		2013-10-08
2-propanol	67-63-0	TWA	400 ppm 980 mg/m3	OSHA Z-1	1997-08-04
	(b): The value in mg/m3 is approximate.				
2-propanol	67-63-0	TWA	400 ppm 980 mg/m3	OSHA P0	1989-01-19
2-propanol	67-63-0	STEL	500 ppm 1,225 mg/m3		
2-propanol	67-63-0	PEL	400 ppm		2014-11-26
2-propanol	67-63-0	STEL	500 ppm CAL PEL 1,225 mg/m3		2014-11-26
propane-1,2-diol	57-55-6	TWA	10 mg/m3	US WEEL	2008-01-01
Benzenemethanol	100-51-6	TWA	10 ppm US WEEL 20		2008-01-01
(R)-1-methyl-4-(1- methylethenyl)- cyclohexene	5989-27-5	TWA	30 ppm	US WEEL	2016-08-17

Exposure Assessment: Exposures are dependent on the product being handled, the potential for chemical release, and any resulting airborne concentrations or dermal contact. Since product handling and release scenarios vary, and no two workplaces are exactly alike, it is recommended that the potential for exposure be assessed prior to the product's use or introduction. Exposure assessments should be performed by an occupational hygienist, industrial hygienist, or other qualified occupational or environmental health professional. An exposure assessment should be conducted to determine the efficacy of any ventilation and the need for additional respiratory protection.

Engineering measures

Ventilation: Use engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposures limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Personal protective equipment

In accordance with the requirements of US 29 CFR Parts 1910, 1915, and 1926.



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Protective measures : Choose PPE based on a hazard assessment, taking into

account to the concentration and amount of dangerous substances, and to the specific work-place conditions.

Eye protection : Ensure that eyewash stations and safety showers are close to

the workstation location.

Wear chemical splash goggles (non-vented) with faceshield.

Hand protection : Wear chemical resistant gloves suitable for this material as

determined by a hazard assessment.

Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin and body protection : Wear protective clothing suitable for this material as

determined by a hazard assessment.

Respiratory protection : Respiratory protection should be worn when workplace

exposures exceed exposure limit requirements or guidelines. If there are no applicable exposure limits or guidelines, use an approved respirator where there is a potential for adverse effects, including but not limited to respiratory irritation or odor, where indicated or required by the exposure assessment. Selection of air-purifying or positive-pressure supplied air will depend on the results of the exposure assessment which includes an evaluation of the specific operations and the actual or potential airborne concentrations. The type of cartridge or filter to be used must be selected and approved for the chemical, class, or classes of chemical(s) likely to be encountered in the workplace. For emergency conditions, use an approved positive-pressure self-contained breathing

apparatus.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice.

Remove contaminated clothing and protective equipment

before entering eating areas.

Wash hands before breaks and immediately after handling the

product.

See Section 16 for further information.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid Form : liquid

Color : yellow to Pale yellow
Taste : Grapefruit, Juicy, Sulfury

Odor : not determined Odour Threshold : Not applicable

Flash point : 88 F (31 °C) Method: Setaflash rapid tester closed cup

Administrative information:

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Lower explosion limit : not determined Upper explosion limit : not determined Flammability (solid, gas) : Not applicable Auto-ignition temperature : not determined Decomposition temperature : no data available

: not determined Melting point : not determined Boiling point : not determined Vapor pressure : 18.2082 hPa at

68 F (20 C) Calculated (62.9 %)

Density : 996.20 kg/m3 at

68 °F (20 °C)

Bulk density : Not applicable

: soluble Solubility/qualitative Solubility/qualitative
Partition coefficient: n-

octanol/water

: Not applicable

Viscosity, kinematic : no data available : no data available Relative vapour density Evaporation rate : no data available

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Heat, flames and sparks.

Extremes of temperature and direct sunlight.

Materials to avoid : no data available

Hazardous decomposition

products

: no data available

Chemical stability : The product is chemically stable.

Reactivity : none

Hazardous reactions : no data available

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute oral toxicity

Administrative information:

Report Information: SDS_US/EN/GHS_SDS_NA_REGION/08

In accordance with the requirements of US 29 CFR Parts 1910, 1915, and 1926.



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ATE : > 5,000 mg/kg

2-propanol : LD50: 5,045 mg/kg Species: Rat

propane-1,2-diol : LD50: 18,500 mg/kg Species: Rabbit

LD50: 18,350 mg/kg Species: Guinea pig

Benzenemethanol : LD50: 1,230 mg/kg Species: Rat

methylethenyl)-cyclohexene

Acute inhalation toxicity : No data is available on the product itself.

Acute dermal toxicity : No data is available on the product itself.

Acute toxicity (other routes

of administration)

: No data is available on the product itself.

Skin corrosion/irritation : May cause skin irritation in susceptible persons.

Serious eye damage/eye

irritation

: Vapours may cause irritation to the eyes, respiratory system

and the skin.

Respiratory or skin

sensitisation

: Causes sensitisation.

Mutagenicity : No data is available on the product itself.

Reproductive toxicity : No data is available on the product itself.

Teratogenicity : No data is available on the product itself.

Carcinogenicity:

IARC : Remarks : No component of this product present at levels greater

than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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OSHA : Remarks : No component of this product present at levels greater

than or equal to 0.1% is identified as a carcinogen or

potential carcinogen by OSHA.

NTP : Remarks : No component of this product present at levels greater

than or equal to 0.1% is identified as a known or

anticipated carcinogen by NTP.

STOT - single exposure : No data is available on the product itself.

STOT - repeated exposure : No data is available on the product itself.

Aspiration hazard : No data is available on the product itself.

Further information : Concentrations substantially above the TLV value may cause

narcotic effects.

Solvents may degrease the skin.

Symptoms of overexposure may be headache, dizziness,

tiredness, nausea and vomiting.

Please note:Mixtures have not been tested for health hazards. The health hazard information presented is provided in accordance with US 29 CFR 1910.1200 and is based on the testing of individual components which have been shown to cause or may cause these health effects when tested at higher concentrations or at full strength.

SECTION 12. Ecological information

Ecological information is not reported.

SECTION 13. DISPOSAL CONSIDERATIONS

The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

49CFR

Not applicable / UN number : 1197

Administrative information:

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Proper shipping name : Extracts, flavoring, liquid

Class : 3 : 111 Packing group Labels : 3 Emergency Response : 127

Guidebook Number

IATA

: 1197 **UN** number

Proper shipping name : Extracts, flavouring, liquid

Class : 3 Packing group : 111 Labels : 3 Packing instruction (cargo : 366

aircraft)

Packing instruction : 355

(passenger aircraft)

Packing instruction : Y344

(passenger aircraft)

IMDG

UN number : 1197

Proper shipping name : EXTRACTS, FLAVOURING, LIQUID

Class : 3 : 111 Packing group Labels : 3 : F-E : S-D EmS Number 1 EmS Number 2 Marine pollutant : yes

Methyl isopropenyl cyclohexene

IMDG Code Segregation : None

Group

SECTION 15. REGULATORY INFORMATION

Only relevant information is reported

SARA 311/312 Hazards. : Fire Hazard Acute Health Hazard

SARA 313 Components : 2-propanol 67-63-0

SECTION 16. OTHER INFORMATION

Administrative information:

Report Information: SDS_US/EN/GHS_SDS_NA_REGION/08

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NFPA : Health hazard: 2
Classification : Fire Hazard: 3
Reactivity Hazard: 0

2 0

Full list of Emergency response numbers worldwide.

	Country	Phone nr		Country	Phone nr
	All Europe	+44 1235 239670		All East/South East Asia	+65 3158 1074
	France	+33 1 72 11 00 03		Sri Lanka	+65 3158 1195
	Germany	+49 69 222 25285		Taiwan	+886 2 8793 3212
	Spain	+34 91 114 2520		Japan	+81 3 4578 9341
	Italy	+39 02 3604 2884		Indonesia	007 803 011 0293
	Netherlands	+31 10 713 8195		Malaysia	+60 3 6207 4347
	Turkey	+90 212 375 5231		Thailand	001 800 120 666 751
Europe	Norway	+47 2103 4452		India	+65 3158 1198 000 800 100 7479
	Greece	+30 21 1198 3182	APAC	Pakistan	+65 3158 1329
	Portugal	+351 30880 4750		Bangladesh	+65 3158 1200
	Denmark	+45 8988 2286		Philippines	+65 3158 1203
	Sweden	+46 8 566 42573		Vietnam	+84 28 4458 2388
	Poland	+48 22 307 3690		Korea	+65 3158 1285
	Czech replublic	+420 228 882 830		South Korea	+82 2 3479 8401
	Finland	+358 9 7479 0199		Australia	+61 2 8014 4558
	All Middle East/Africa	+44 1235 239671		New Zealand	+64 9 929 1483
Middle East/Africa	Bahrain and Middle East	+973 1619 8321		China	+86 532 8388 9090
	Africa/South Africa	+27 21 300 2732		Mexico	+52 55 5004 8763
	USA and Canada	+1 866 928 0789	LATAM	Brazil	+55 11 3197 5891
NOAM	USA and Canada	+1 215 207 0061		Chile	+56 2 2582 9336
	USA and Canada	+1 202 464 2554	Global	Global	+44 1865 407333

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Givaudan recommends that each recipient or user of this SDS carefully study this document and consult with the appropriate expert (i.e., industrial hygienist, toxicologist, or occupational physician) to understand and appreciate the technical data, any associated hazards, and appropriate control measures needed to ensure the safe handling and use of this product. The above information relates only to this product and not to its use in combination with any other material or in any particular process. The above information is based on data provided by and collected from recognized sources such as distributors, manufacturers and technical groups and is considered to be accurate to the best of Givaudan's knowledge as of the date of this document. Since the conditions of handling and use are not within the knowledge of Givaudan, it is the responsibility of the recipient to conduct an appropriate hazard assessment and to review all information about this product and determine its safety and suitability in their own processes and operations.

Appropriate warnings and safe handling instructions should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors relating to such use.

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Revision Date: 01 FEB 2018 Print Date: 01 FEB 2018

Administrative information:

Report Information: SDS_US/EN/GHS_SDS_NA_REGION/08