

Material Safety Data Sheet

Issuing Date 07-Aug-2013

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Revision Number 0

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

GHS product identifier

Product Name Tang Viva!E Refill

Other means of identification

UN-Number UN1169

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Air freshener

Uses advised against No information available

Supplier's details

Supplier Address

Fragrance Delivery Technologies, LTD
P.O.Box 262800
Dubai
United Arab Emirates
TEL: +9714 887 0577
email: fdtinquiries@oxygenpowered.com

Emergency telephone number

Emergency Telephone Number 303-389-1271
855-259-2437


2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Flammable liquids	Category 3

GHS Label elements, including precautionary statements**Emergency Overview**

Signal Word	Warning		
Hazard Statements			
<ul style="list-style-type: none"> • Causes skin irritation • Causes serious eye irritation • May cause an allergic skin reaction • • Flammable liquid and vapor. 			
			
Appearance	Clear, Pale red to red	Physical State	Liquid.
		Odor	Characteristic

Precautionary Statements**Prevention**

- Wash face, hands and any exposed skin thoroughly after handling
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Contaminated work clothing should not be allowed out of the workplace
- Keep away from heat/sparks/open flames/hot surfaces - No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ventilating/lighting/equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge
- Wear protective gloves/protective clothing/eye protection/face protection.

General Advice

- None

Eyes

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If eye irritation persists: Get medical advice/attention.

Skin

- If skin irritation or rash occurs: Get medical advice/attention
- Wash contaminated clothing before reuse
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Fire

- In case of fire: Use CO₂, dry chemical, or foam for extinction.

Storage

- Store in a well-ventilated place. Keep cool.

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

Toxic to aquatic life with long lasting effects

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade secret
Decanal	112-31-2	25-<50	*
Citral	5392-40-5	10-<15	*
D-Limonene	5989-27-5	5-<10	*
.alpha.-Pinene	80-56-8	<0.1	*
2,6-Di-tert-butyl-p-cresol	128-37-0	<0.1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**Description of necessary first-aid measures**

Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation persists.
Skin Contact	If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Remove and wash contaminated clothing before re-use.
Inhalation	Move to fresh air in case of accidental inhalation of vapors.
Ingestion	Clean mouth with water and afterwards drink plenty of water.
Protection of First-aiders	Remove all sources of ignition. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects Itching Rashes Irritation.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use: Water spray. Carbon dioxide (CO₂). Foam.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Specific Hazards Arising from the Chemical

Flammable. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.). Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	Yes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use personal protective equipment. Avoid contact with skin, eyes and clothing.
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Environmental Precautions

Environmental Precautions	Prevent further leakage or spillage if safe to do so. Avoid release to the environment. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Dispose of contents/container to an approved waste disposal plant. Collect spillage. See Section 12 for additional Ecological Information
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Methods and materials for containment and cleaning up

Methods for Containment	Dike far ahead of liquid spill for later disposal.
Methods for Cleaning Up	Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Use clean non-sparking tools to collect absorbed material. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Keep away from open flames, hot surfaces and sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed in a dry and well-ventilated place.

Incompatible Products Strong oxidizing agents, Strong acids, Strong bases,

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Citral 5392-40-5	TWA: 5 ppm inhalable fraction and vapor S*	-	-
.alpha.-Pinene 80-56-8	TWA: 20 ppm	-	-
2,6-Di-tert-butyl-p-cresol 128-37-0	TWA: 2 mg/m ³ inhalable fraction and vapor	(vacated) TWA: 10 mg/m ³	TWA: 10 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.
Skin and Body Protection Wear protective gloves/clothing.
Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Do not eat, drink or smoke when using this product. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Appearance	Clear Pale red to red
Odor	Characteristic	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	No data available	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	No data available	None known
Flash Point	54 °C / 129.2 °F	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	197 Pa @ 20 °C	None known
Vapor Density	No data available	None known
Relative Density	0.8720 - 0.8760	None known
Specific Gravity	No data available.	None known
Water Solubility	Insoluble in water.	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known

Flammable Properties Not flammable

Explosive Properties No data available

Oxidizing Properties No data available

Other information

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents, Strong acids, Strong bases,

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	None under normal use conditions
Eye Contact	May cause irritation.
Skin Contact	Irritating to skin.
Ingestion	Ingestion may cause irritation to mucous membranes.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Decanal	= 3730 µL/kg (Rat)	= 5040 µL/kg (Rabbit)	-
Citral	= 4950 mg/kg (Rat)	= 2250 mg/kg (Rabbit) > 2000 mg/kg (Rat)	-
D-Limonene	5000 mg/kg (Rat)	>5000 mg/kg (Rabbit)	-
n-Hexyl acetate	= 41500 µL/kg (Rat)	> 5 g/kg (Rabbit)	-
6-Octenal, 3,7-dimethyl-	= 2420 mg/kg (Rat)	> 2500 mg/kg (Rabbit)	-
Lauryl aldehyde	= 23 g/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Irritation

Delayed and immediate effects and also chronic effects from short and long term exposure

Skin corrosion/irritation	Irritating to skin.
Eye damage/irritation	May cause eye irritation
Sensitization	May cause sensitization by skin contact.
Mutagenic Effects	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
D-Limonene		Group 3	-	-
2,6-Di-tert-butyl-p-cresol		Group 3	-	-

IARC: (International Agency for Research on Cancer)

IARC: (International Agency for Research on Cancer)

Group 3: Not Classifiable as to its Carcinogenicity to Humans

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral	10386 mg/kg; Acute toxicity estimate
LD50 Dermal	5888 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Decanal 112-31-2			EC50 = 2.90 mg/L 25 min EC50 = 3.59 mg/L 15 min EC50 = 4.71 mg/L 5 min	
Citral 5392-40-5	EC50 72 h: = 16 mg/L (Desmodesmus subspicatus) EC50 96 h: = 19 mg/L (Desmodesmus subspicatus)	LC50 96 h: 4.6-10 mg/L static (Leuciscus idus)	EC50 = 2100 mg/L 30 min	EC50 48 h: = 7 mg/L (Daphnia magna)
D-Limonene 5989-27-5		LC50 96 h: 0.619 - 0.796 mg/L flow-through (Pimephales promelas) LC50 96 h: = 35 mg/L (Oncorhynchus mykiss)		
n-Hexyl acetate 142-92-7		LC50 96 h: 3.7-4.4 mg/L flow-through (Pimephales promelas)		
.alpha.-Pinene 80-56-8		LC50 96 h: = 0.28 mg/L static (Pimephales promelas)		LC50 48 h: = 41 mg/L (Daphnia magna)
2,6-Di-tert-butyl-p-cresol 128-37-0	EC50 72 h: = 6 mg/L (Pseudokirchneriella subcapitata) EC50 72 h: > 0.42 mg/L (Desmodesmus subspicatus)	LC50 48 h: = 5 mg/L (Oryzias latipes)	EC50 = 7.82 mg/L 5 min EC50 = 8.57 mg/L 15 min EC50 = 8.98 mg/L 30 min	

Persistence and Degradability No information available.

Bioaccumulation No information available.

Chemical Name	Log Pow
Citral	2.76
.alpha.-Pinene	4.1
2,6-Di-tert-butyl-p-cresol	4.17

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

US EPA Waste Number D001

Chemical Name	California Hazardous Waste
D-Limonene	Toxic

14. TRANSPORT INFORMATION

Note: This shipping size falls into limited quantity exemptions that do not require labeling or placarding except if transported by aircraft. Under U.S. DOT transportation regulations, this product can be re-classed as a Limited Quantity in accordance with 49 CFR 173.306(i). Under Transport Canada regulations, this product can be re-classed as a Limited Quantity in accordance with Section 1.17. Under IMDG regulations (Amdt 35-10), this product can be re-classed as a Limited Quantity in accordance with Chapter 3.4.

DOT

UN-Number	UN1169
Proper shipping name	Extracts, aromatic, liquid
Hazard Class	3
Packing Group	III
Description	UN1169, Extracts, aromatic, liquid, 3, III
Emergency Response Guide Number	127

TDG

UN-Number	UN1169
Proper Shipping Name	Extracts, aromatic, liquid
Hazard Class	3
Packing Group	III
Marine Pollutant	This mixture meets the IMDG criteria for being a marine pollutant.
Description	UN1169, Extracts, aromatic, liquid, 3, III, Marine Pollutant

UN-Number	UN1169
Proper Shipping Name	Extracts, aromatic, liquid
Hazard Class	3
Packing Group	III
Description	UN1169, Extracts, aromatic, liquid, 3, III

ICAO

UN-Number	UN1169
Proper shipping name	Extracts, aromatic, liquid
Hazard Class	3
Packing Group	III
Description	UN1169, Extracts, aromatic, liquid, 3, III

IATA

UN-Number	UN1169
Proper Shipping Name	Extracts, aromatic, liquid
Hazard Class	3
Packing Group	III
ERG Code	3L
Description	UN1169, Extracts, aromatic, liquid, 3, III

IMDG/IMO

UN-Number	UN1169
Proper Shipping Name	Extracts, aromatic, liquid
Hazard Class	3
Packing Group	III
EmS No.	F-E, S-D
Marine Pollutant	This mixture meets the IMDG criteria for being a marine pollutant.
Description	UN1169, Extracts, aromatic, liquid, 3, III, Marine Pollutant (54°C c.c.)

UN-Number	UN1169
Proper Shipping Name	Extracts, aromatic, liquid
Hazard Class	3
Packing Group	III
Classification Code	F1
Description	UN1169, Extracts, aromatic, liquid, 3, III

ADR

UN-Number	UN1169
Proper Shipping Name	Extracts, aromatic, liquid
Hazard Class	3
Packing Group	III
Classification Code	F1
Tunnel Restriction Code	(D/E)
Description	UN1169, Extracts, aromatic, liquid, 3, III, (D/E)
ADR/RID-Labels	3

ADN

Proper Shipping Name	Extracts, aromatic, liquid
Hazard Class	3
Packing Group	III
Classification Code	F1
Special Provisions	601, 604E
Description	UN1169, Extracts, aromatic, liquid, 3, III, Marine Pollutant.
Limited Quantity	5 L
Ventilation	VE01
Special Precautions	This mixture meets the IMDG criteria for being a marine pollutant.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
EINECS	Complies
ENCS	Not determined
IECSC	Complies
KECL	Not determined
PICCS	Complies
AICS	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Octanal		X			
D-Limonene	X			X	

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard	2	Flammability	2	Instability	0	Physical and Chemical Hazards	-
<u>HMIS</u>	Health Hazard	2*	Flammability	2	Physical Hazard	0	Personal Protection	X

*Indicates a chronic health hazard.

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General 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.

End of Safety Data Sheet