

Fragrance Delivery Technologies Ltd.

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SAFETY DATA SHEET

Issuing Date 07-Aug-2013

Revision Date 01-Aug-2017

Revision Number 2

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name Crush VIVA!e Refill

Contains D-Limonene, Oxiranecarboxylic acid, 3-methyl-3-phenyl-, ethyl ester
Contains Allyl caproate, Ethyl butyrate, Heptanoic acid, 2-propenyl ester, D-Limonene

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

Recommended Use Air freshener

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company

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

1.4. Emergency telephone number

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

Europe	112
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Section 2. Hazards identification

2.1. - Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute Oral Toxicity	Category 4
Acute Dermal Toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Specific Target Organ Toxicity (Repeated Exposure)	Category 2
Acute Aquatic Toxicity	Category 2
Chronic Aquatic Toxicity	Category 2

Physical Hazards

Flammable liquids	Category 3
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2.2. Label Elements**Signal Word****Warning****Hazard Statements**

H302 - Harmful if swallowed
 H312 - Harmful in contact with skin
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation
 H373 - May cause damage to organs through prolonged or repeated exposure
 H411 - Toxic to aquatic life with long lasting effects Contains Coumarin

Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 P233 - Keep container tightly closed
 P243 - Take precautionary measures against static discharge
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P273 - Avoid release to the environment

Precautionary Statements

P270 - Do not eat, drink or smoke when using this product
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell
 P330 - Rinse mouth
 P322 - Specific measures (see supplemental first aid instructions on this label)
 P271 - Use only outdoors or in a well-ventilated area
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
 P312 - Call a POISON CENTER or doctor/ physician if you feel unwell
 P332 + P313 - If skin irritation occurs: Get medical advice/ attention
 P362 - Take off contaminated clothing and wash before reuse
 P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention
 P321 - Specific treatment (see supplemental first aid instructions on this label)
 P363 - Wash contaminated clothing before reuse
 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 discharge

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower

P370 + P378 - In case of fire: Use .? for extinction P403

+ P235 - Store in a well-ventilated place. Keep cool P501

- Dispose of contents/container to .?

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/ attention

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P314 - Get medical advice/ attention if you feel unwell

P273 - Avoid release to the environment

P391 - Collect spillage

P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other information No information available.

Section 3. Composition/information on ingredients

3.1. Substances

3.2. Mixtures

Chemical Name	EC-No	CAS-No	Weight %	EU - GHS Substance Classification	REACH No.
Ethyl acetoacetate	205-516-1	141-97-9	25-50		No data available
n-Hexyl acetate	205-572-7	142-92-7	10-20	EFFA: EH A2; FL 3; SCI 3	No data available
Heptanoic acid, 2-propenyl ester	205-527-1	142-19-8	10-20	Acute Tox. Oral Cat. 3 (H301) Acute Tox. Dermal Cat. 3 (H311) Acute Tox. Inh. Cat. 3 (H331) Aquatic Acute Tox. Cat. 1 (H400) Aquatic Chronic Tox. Cat. 3 (412)	No data available
Heptanoic acid, ethyl ester	203-382-9	106-30-9	5-10		No data available
D-Limonene	227-813-5	5989-27-5	5-10	Skin Irrit. 2 (H315) Flam. Liq. 3 (H226) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
Acetic acid, (3-methylbutoxy)-, 2-propenyl ester	266-803-5	67634-00-8	5-10	Skin Irrit. 2 (H315)	No data available
Oxiranecarboxylic acid, 3methyl-3-phenyl-, ethyl ester	201-061-8	77-83-8	1-5	Skin Sens. 1 (H317)	No data available
Ethyl butyrate	203-306-4	105-54-4	1-5		No data available

Benzenemethanol, .alpha.-methyl-, acetate	202-288-5	93-92-5	1-5		No data available
Allyl caproate	204-642-4	123-68-2	1-5	Aquatic Chronic 2 (H411)	No data available
Cyclohexanepropanoic acid, 2-propenyl ester	220-292-5	2705-87-5	1-5	EFFA: ATD 4; ATO 4; FL 4; SCI 2	No data available
2(3H)-Furanone, dihydro-5pentyl-	203-219-1	104-61-0	1-5		No data available
Coumarin	202-086-7	91-64-5	0.1-1	Skin Sens. 1 (H317)	No data available

For the full text of the H-Statements mentioned in this Section, see Section 16

Section 4. First aid measures

4.1. Description of first-aid measures

Eye Contact	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 Contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Ingestion	Call a POISON CENTER or doctor/physician if exposed or you feel unwell. Rinse mouth.
Inhalation	Get medical attention immediately if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects Hives, Itching, Rashes, Irritation.

4.3. Indication of immediate medical attention and special treatment needed

Notes to Physician May cause sensitization by skin contact.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

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

Extinguishing media which must not be used for safety reasons

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

5.2. Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

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

5.3. Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. 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.

6.2. 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.

6.3. Methods and materials for containment and cleaning up

Dike to collect large liquid spills.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Use personal protective equipment. Use clean non-sparking tools to collect absorbed material. Sweep up and shovel into suitable containers for disposal.

6.4. Reference to other sections

See Section 12 for additional information.

Section 7. Handling and storage

7.1. Precautions for Safe Handling_Handling

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. 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 re-use. Wash thoroughly after handling.

Hygiene Measures

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash face, hands and any exposed skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

Exposure Scenario

No information available.

Other Guidelines No information available.

Section 8. Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical Name	Finland	France	Germany	Gibraltar	Greece
D-Limonene 598927-5	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 50 ppm STEL: 280 mg/m ³	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 5 ppm TWA: 28 mg/m ³ Ceiling / Peak: 20 ppm Ceiling / Peak: 112 mg/m ³ Skin Repr* Sen*		

Chemical Name	The Netherlands	Norway	Poland	Portugal	Spain
D-Limonene 598927-5		TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³ Sen*			
Chemical Name	Switzerland		Sweden	The United Kingdom	
D-Limonene 5989-27-5	STEL: 14 ppm STEL: 80 mg/m ³ TWA: 7 ppm TWA: 40 mg/m ³ Sen*				

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Derived No Effect Level No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures

Showers
Eyewash stations
Ventilation systems

Personal protective equipment

Personal protection equipment should be chosen according to the CEN standards

Eye Protection

Tightly fitting safety goggles.

Skin and Body Protection

Wear suitable protective clothing.

Hand Protection

Protective gloves.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respiratory protection complying with EN 143.

Environmental Exposure Controls

Do not allow material to contaminate ground water system.

Section 9. Physical and chemical properties

basic physical and chemical properties

9.1

Physical State	Liquid	Appearance	Pale yellow to lemon yellow
Odor	Fruity		

<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	56 °C / 132.8 °F	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air	No data available	None known
Vapor Pressure	0.934 Pa @ 20 °C	None known
Vapor Density	No data available.	None known
Relative Density	No data available	None known
Water Solubility	Insoluble in water.	None known
Solubility in other solvents	Practically insoluble	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
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known
Explosive Properties	No information available	
Oxidizing Properties	No information available	

9.2. Other information

VOC Content (%)	No information available
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Section 10. Stability and reactivity

10.1. Reactivity No data available.

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 Strong oxidizing agents, Strong acids, Strong bases.

10.6. Hazardous decomposition products Carbon oxides.

Section 11. Toxicological information

11.1. Information on toxicological effects

Acute Toxicity	
Product Information	.
Inhalation	None under normal use condtions.

Eye Contact	Causes serious eye irritation.
Skin Contact	Causes skin irritation. May cause sensitization by skin contact. Harmful in contact with skin.
Ingestion	Harmful if swallowed. Ingestion may cause irritation to mucous membranes.
Acute Toxicity	0% of the mixture consists of ingredient(s) of unknown toxicity.

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

LD50 Oral 396.00 mg/kg

LD50 Dermal 1,193.00 mg/kg

Inhalation Not classified

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl acetoacetate	= 3980 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	
Heptanoic acid, 2propenyl ester	= 5000 mg/kg (Rat)	= 810 mg/kg (Rabbit)	
n-Hexyl acetate	= 41500 µL/kg (Rat)	> 5 g/kg (Rabbit)	
Heptanoic acid, ethyl ester	> 34640 mg/kg (Rat)	> 5 g/kg (Rabbit)	
D-Limonene	5000 mg/kg (Rat)	>5000 mg/kg (Rabbit)	-
Oxiranecarboxylic acid, 3-methyl-3-phenyl-, ethyl ester	= 5470 mg/kg (Rat)		
Benzenemethanol, .alpha.-methyl-, acetate	> 5 g/kg (Rat)	> 5 g/kg (Rabbit)	
Allyl caproate	= 218 mg/kg (Rat)	= 300 mg/kg (Rabbit)	
2(3H)-Furanone, dihydro-5-pentyl-	= 6600 mg/kg (Rat)	> 5 g/kg (Rabbit)	
Ethyl butyrate	= 13 g/kg (Rat)	> 2 g/kg (Rabbit)	
Cyclohexanepropanoic acid, 2-propenyl ester	= 585 mg/kg (Rat)		
Coumarin	-	> 2000 mg/kg (Rat)	
Allyl phenoxyacetate	= 475 µL/kg (Rat)	= 820 µL/kg (Rabbit)	

Sensitization May cause an allergic skin reaction.

Mutagenic Effects No information available.

Carcinogenic Effects Contains no ingredients

above reportable quantities listed as a carcinogen.
Reproductive Toxicity No information available.
Developmental Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure May cause disorder and damage to the: Liver
Aspiration Hazard No information available.

Section 12. Ecological information

12.1. Toxicity

Ecotoxicity Effects

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ethyl acetoacetate	EC50 72 h: > 500 mg/L (Desmodesmus subspicatus)	LC50 96 h: = 290 mg/L (Oncorhynchus mykiss) LC50 96 h: = 298 mg/L (Pimephales promelas) LC50 96 h: = 307 mg/L (Lepomis macrochirus)		EC50 48 h: = 646 mg/L (Daphnia magna) EC50 24 h: = 790 mg/L Static (Daphnia magna)
n-Hexyl acetate		LC50 96 h: 3.7 - 4.4 mg/L flow-through (Pimephales promelas)		
D-Limonene		LC50 96 h: 0.619 - 0.796 mg/L flow-through (Pimephales promelas) LC50 96 h: = 35 mg/L (Oncorhynchus mykiss)		
Allyl caproate		LC50 96 h: = 30 mg/L (Carassius auratus)		

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential No information available.

Chemical Name	Log Pow
Ethyl acetoacetate	0.27

12.4. Mobility in soil

Adsorbs on soil.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

This product does not contain any known or suspected endocrine disruptors.

Section 13. Disposal considerations

13.1. Waste treatment methods**Waste from Residues / Unused Products**

Dispose of in accordance with local regulations.

Contaminated Packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

Other Information

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14. Transport information

IMDG/IMO

14.1. UN-Number	UN1169
14.2. Proper Shipping Name	Extracts, aromatic, liquid
14.3. Hazard Class	3
14.4. Packing Group	III
Description	UN1169, Extracts, aromatic, liquid, 3, III, Marine Pollutant (54°C c.c.)
14.5. Marine Pollutant	None
Environmental hazard	yes
14.6. Special Provisions	None
EmS No.	F-E, S-D
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available.

RID

14.1. UN-Number	UN1169
14.2. Proper Shipping Name	Extracts, aromatic, liquid
14.3. Hazard Class	3
14.4. Packing Group	III
Description	UN1169, Extracts, aromatic, liquid, 3, III
14.5. Environmental hazard	yes

14.6. Special Provisions	None
Classification Code	F1
ADR	
14.1. UN-Number	UN1169
14.2. Proper Shipping Name	Extracts, aromatic, liquid
14.3. Hazard Class	3
ADR/RID-Labels	3
14.4. Packing Group	III
Description	UN1169, Extracts, aromatic, liquid, 3, III, (D/E)
14.5. Environmental hazard	yes
14.6. Special Provisions	None
Classification Code	F1

ICAO

14.1. UN-Number	UN1169
14.2. Proper shipping name	Extracts, aromatic, liquid
14.3. Hazard Class	3
14.4. Packing Group	III
Description	UN1169, Extracts, aromatic, liquid, 3, III
14.5. Environmental hazard	yes
14.6. Special Provisions	None

IATA

14.1. UN-Number	UN1169
14.2. Proper Shipping Name	Extracts, aromatic, liquid
14.3. Hazard Class	3
14.4. Packing Group	III
Description	UN1169, Extracts, aromatic, liquid, 3, III
14.5. Environmental hazard	yes
14.6. Special Provisions	None
ERG Code	3L

Section 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories**

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	Not determined
IECSC	Complies
AICS	Complies
KECL Legend	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU 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

No information available

Section 16. Other information**Full text of H-Statements referred to under sections 2 and 3**

H226 - Flammable liquid and vapor
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H331 - Toxic if inhaled
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects

Key literature references and sources for data www.ChemADVISOR.com/

Issuing Date 07-Aug-2013

Revision Date 01-Aug-2017

Revision Note Update to Format.

This safety data sheet complies with the requirements of Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No. 1907/2006

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