



Fragrance Delivery Technologies Ltd.

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Material Safety Data Sheet

Issuing Date 07-Aug-2013 Revision Date 07-Aug-2013 Revision Number 0

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

GHS product identifier

Product Name Crush 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 303-389-1271 **Number** 855-259-2437

2. HAZARDS IDENTIFICATION

Classification

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

Acute Oral Toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Skin Sensitization	Category 1
Specific Target Organ Toxicity (Repeated Exposure)	Category 2
Flammable liquids	Category 3

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word Warning Hazard Statements

- Harmful if swallowed
- Causes skin irritation
- O-----
- Causes serious eye irritation
- May cause an allergic skin reaction
- May cause damage to organs through prolonged or repeated exposure
- Flammable liquid and vapor.



Appearance Pale yellow to lemon yellow

Physical State Liquid.

Odor Fruity

Precautionary Statements

Prevention

- · Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Contaminated work clothing should not be allowed out of the workplace
- Do not breathe dust/fume/gas/mist/vapors/spray
- 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

• Get medical attention/advice if you feel unwell

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.

Ingestion

- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- · Rinse mouth.

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

Very toxic to aquatic life with long lasting effects

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade secret
Ethyl acetoacetate	141-97-9	25-<50	*
n-Hexyl acetate	142-92-7	10-<20	*
Heptanoic acid, 2-propenyl ester	142-19-8	10-<20	*
Heptanoic acid, ethyl ester	106-30-9	5-<10	*
D-Limonene	5989-27-5	5-<10	*
Acetic acid, (3-methylbutoxy)-, 2-propenyl ester	67634-00-8	5-<10	*
Oxiranecarboxylic acid, 3-methyl-3-phenyl-, ethyl	77-83-8	1-<5	*
ester			
Ethyl butyrate	105-54-4	1-<5	*
Benzenemethanol, .alphamethyl-, acetate	93-92-5	1-<5	*
Allyl caproate	123-68-2	1-<5	*
Cyclohexanepropanoic acid, 2-propenyl ester	2705-87-5	1-<5	*
2(3H)-Furanone, dihydro-5-pentyl-	104-61-0	1-<5	*
Coumarin	91-64-5	0.1-<1	*

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

4. FIRST AID MEASURES

Description of necessary first-aid measures

General Advice Get medical advice/ attention if you feel unwell

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 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.

Inhalation Move to fresh air in case of accidental inhalation of vapors.

Ingestion Call a POISON CENTER or doctor/physician if exposed or you feel unwell. Rinse mouth.

Protection of First-aiders Remove all sources of ignition. Use personal protective equipment.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects Hives, 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.

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.

Methods and materials for containment and cleaning up

Methods for Containment Dike far ahead of liquid spill for later disposal.

Methods for Cleaning UpDam 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 GuidelinesThis product does not contain any hazardous materials with occupational exposure limits

established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Measures Showers

Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Skin and Body Protection

Tightly fitting safety goggles. 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 MeasuresDo 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 StateLiquidAppearancePale yellow to lemon yellowOdorFruityOdor ThresholdNo information available

<u>Property</u> <u>Values</u> <u>Remarks/ - Method</u>

Hq 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 No data available **Evaporation rate** None known Flammability (solid, gas) No data available None known

Flammability Limits in Air

upper flammability limitNo data availablelower flammability limitNo data available

Vapor Pressure 0.934 Pa @ 20 °C Calculated **Vapor Density** No data available None known **Relative Density** No data available None known **Specific Gravity** No data available. None known **Water Solubility** Insoluble in water. None known Solubility in other solvents Practically insoluble. None known Partition coefficient: n-octanol/waterNo 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 PropertiesNo 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 condtions

Eye Contact Irritating to eyes.

Skin Contact Irritating to skin. May cause sensitization by skin contact.

Ingestion Harmful if swallowed. Ingestion may cause irritation to mucous membranes.

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 Irritating to eyes.

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	-	-
Coumarin		Group 3		

IARC: (International Agency for Research on Cancer)

Group 3: Not Classifiable as to its Carcinogenicity to Humans

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

Numerical measures of toxicity - Product

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

LD50 Oral1221mg/kg; Acute toxicity estimateLD50 Dermal2110mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ethyl acetoacetate	EC50 72 h: > 500 mg/L	LC50 96 h: = 290 mg/L		EC50 48 h: = 646 mg/L
141-97-9	(Desmodesmus subspicatus)	(Oncorhynchus mykiss)		(Daphnia magna)
		LC50 96 h: = 298 mg/L		EC50 24 h: = 790 mg/L
		(Pimephales promelas)		Static (Daphnia magna)
		LC50 96 h: = 307 mg/L		
		(Lepomis macrochirus)		
n-Hexyl acetate		LC50 96 h: 3.7-4.4 mg/L		
142-92-7		flow-through (Pimephales		
		promelas)		
D-Limonene		LC50 96 h: 0.619 - 0.796		
5989-27-5		mg/L flow-through		
		(Pimephales promelas) LC50		
		96 h: = 35 mg/L		
		(Oncorhynchus mykiss)		
Allyl caproate		LC50 96 h: = 30 mg/L		
123-68-2		(Carassius auratus)		

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Log Pow	
Ethyl acetoacetate	0.27	

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	
Ethyl butyrate	Ignitable	

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

UN1169

Proper shipping name Extracts, aromatic, liquid

Hazard Class 3
Packing Group III

Description UN1169, Extracts, aromatic, liquid, 3, III

Emergency Response Guide 127

Number

TDG

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

<u>ICAO</u>

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

Packing Group Ш 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 (56°C c.c.)

UN-Number UN1169

Proper Shipping Name Extracts, aromatic, liquid

Hazard Class 3 Ш **Packing Group Classification Code** F1

Description UN1169, Extracts, aromatic, liquid, 3, III

ADR

UN-Number UN1169

Proper Shipping Name Extracts, aromatic, liquid

Hazard Class Packing Group Ш **Classification Code** F1 **Tunnel Restriction Code** (D/E)

Description UN1169, Extracts, aromatic, liquid, 3, III, (D/E)

ADR/RID-Labels

ADN

Proper Shipping Name Extracts, aromatic, liquid

Hazard Class Packing Group Ш **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** Complies **PICCS** Complies **AICS** Complies

Legend

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

DSL/NDSL - 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
Ethyl acetoacetate		X	X		
D-Limonene	Х			Х	
Ethyl butyrate	X	X	X		

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION						
NFPA	Health Hazard	2	Flammability	2	Instability 0	Physical and Chemical Hazards -
HMIS	Health Hazard	2*	Flammability	2	Physical Hazard 0	Personal Protection X

^{*}Indicates a chronic health hazard.

Prepared By Product Stewardship

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1-800-572-6501

07-Aug-2013 **Issuing Date Revision Date** 07-Aug-2013 **Revision Note** Initial Release.

<u>General Disclaimer</u>
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