

MATERIAL SAFETY DATA SHEET

Issuing Date 19-Feb-2014

Revision Date 19-Feb-2014

Revision Number 0

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

GHS product identifier

Product Name Glow Viva!E Refill

Other means of identification

UN-Number UN1169

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Fragrances

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 CHEMTREC: 1-800-424-9300 for US/ 703-527-3887 outside US

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 |
| Acute Inhalation Toxicity - Vapors | Category 4 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Skin Sensitization | Category 1 |
| Specific Target Organ Systemic Toxicity (Single Exposure) | Irritating to respiratory system |
| Flammable liquids | Category 3 |

GHS Label elements, including precautionary statements

Emergency Overview

| | | |
|--|-------------------------------|--------------------|
| <p>Signal Word Hazard Statements</p> <ul style="list-style-type: none"> • Harmful if swallowed • Harmful if inhaled • Causes serious eye irritation • May cause an allergic skin reaction • Flammable liquid and vapor. | <p>Warning</p> | |
|  | | |
| Appearance Pale red to red | Physical State Liquid. | Odor Cherry |

Precautionary Statements

Prevention

- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- 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
- 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.

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell.

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

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

0% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No | Weight % |
|---|------------|----------|
| Benzaldehyde | 100-52-7 | 40 |
| D-Limonene | 5989-27-5 | 9.5 |
| Benzaldehyde, 4-methyl- | 104-87-0 | 8 |
| Acetophenone | 98-86-2 | 8 |
| Ionone, .beta. (.beta.-Ionone) | 14901-07-6 | 4 |
| Allyl caproate | 123-68-2 | 4 |
| Isoamyl butyrate | 106-27-4 | 3 |
| n-Hexyl acetate | 142-92-7 | 2.6 |
| p-Methylacetophenone | 122-00-9 | 2 |
| Butanoic acid, 3-methyl-, ethyl ester | 108-64-5 | 2 |
| 2-ethyl-3-hydroxy-4-pyrone | 4940-11-8 | 2 |
| 2-Propenal, 2-methyl-3-phenyl- | 101-39-3 | 1.5 |
| Vanillin | 121-33-5 | 1 |
| Eugenol | 97-53-0 | 1 |
| 2,6-Di-tert-butyl-p-cresol | 128-37-0 | 0.5 |
| 1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one | 57378-68-4 | 0.2 |
| 2-Buten-1-one, 1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)- | 23696-85-7 | 0.1 |

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 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. Remove and wash contaminated clothing before re-use. |
| Inhalation | Remove to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if exposed or you feel unwell |
| Ingestion | Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if exposed or you feel unwell. |

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects May cause allergic skin reaction. 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: Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). 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 Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. 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. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information

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). Non-sparking tools should be used. 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. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only in area provided with appropriate exhaust ventilation. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage Keep away from open flames, hot surfaces and sources of ignition. Keep containers tightly closed in a cool, 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 |
|--|--|-------------------------------------|---------------------------|
| Acetophenone 98-86-2 | TWA: 10 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 |

Appropriate engineering controls

Engineering Measures Showers. Eyewash stations. Explosion proof ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles.
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. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|-----------------------|--------|-----------------------|--------------------------|
| Physical State | Liquid | Appearance | Pale red to red |
| Odor | Cherry | 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 | 53 °C / 127.4 °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 | No data available | None known |
| Vapor Density | No data available | None known |
| Specific Gravity | No data available. | None known |
| Water Solubility | No data available | 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 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

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation

Harmful by inhalation. Irritating to respiratory system.

Eye Contact

Irritating to eyes.

Skin Contact

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion

Harmful if swallowed.

Component Information

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------------------------|-----------------------|-------------------------|-----------------|
| Benzaldehyde | = 800 mg/kg (Rat) | > 1250 mg/kg (Rabbit) | - |
| D-Limonene | 5000 mg/kg (Rat) | >5000 mg/kg (Rabbit) | - |
| Benzaldehyde, 4-methyl- | = 1600 mg/kg (Rat) | = 2500 mg/kg (Rat) | - |
| Acetophenone | = 815 mg/kg (Rat) | = 1760 mg/kg (Rabbit) | - |
| Allyl caproate | = 218 mg/kg (Rat) | = 300 mg/kg (Rabbit) | - |
| Ionone, .beta. (.beta.-lonone) | = 4590 mg/kg (Rat) | - | - |
| Isoamyl butyrate | > 5 g/kg (Rat) | > 5 g/kg (Rabbit) | - |
| n-Hexyl acetate | = 41500 µL/kg (Rat) | > 5 g/kg (Rabbit) | - |
| p-Methylacetophenone | = 1400 mg/kg (Rat) | - | - |
| 2-ethyl-3-hydroxy-4-pyrone | = 1150 mg/kg (Rat) | > 5 g/kg (Rabbit) | - |
| 2-Propenal, 2-methyl-3-phenyl- | = 2050 mg/kg (Rat) | > 5000 mg/kg (Rabbit) | - |
| Vanillin | = 1580 mg/kg (Rat) | > 5010 mg/kg (Rabbit) | - |
| Eugenol | = 1930 mg/kg (Rat) | - | - |
| 2,6-Di-tert-butyl-p-cresol | = 890 mg/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**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 | - | - |
| Eugenol | | Group 3 | | |
| 2,6-Di-tert-butyl-p-cresol | | Group 3 | - | - |

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** Respiratory system.**STOT - repeated exposure** No information available.**Chronic Toxicity** Repeated contact may cause allergic reactions in very susceptible persons.**Aspiration Hazard** No information available.**Numerical measures of toxicity - Product****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** 942 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) |
|--|---|--|--|---------------------------------------|
| Benzaldehyde 100-52-7 | | LC50 96 h: 0.8-1.44 mg/L flow-through (Lepomis macrochirus) LC50 96 h: 10.6-11.8 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: 6.8-8.53 mg/L flow-through (Pimephales promelas) LC50 96 h: = 12.69 mg/L static (Oncorhynchus mykiss) LC50 96 h: = 7.5 mg/L static (Lepomis macrochirus) | EC50 = 4.85 mg/L 30 min EC50 = 5.08 mg/L 15 min EC50 = 6.11 mg/L 5 min | EC50 24 h: = 50 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) | | |
| Acetophenone 98-86-2 | | LC50 96 h: = 155 mg/L static (Pimephales promelas) LC50 96 h: = 162 mg/L flow-through (Pimephales promelas) | EC50 = 15.5 mg/L 15 min | |
| Allyl caproate 123-68-2 | | LC50 96 h: = 30 mg/L (Carassius auratus) | | |
| n-Hexyl acetate 142-92-7 | | LC50 96 h: 3.7-4.4 mg/L flow-through (Pimephales promelas) | | |
| Vanillin 121-33-5 | | LC50 96 h: 53-61.3 mg/L flow-through (Pimephales promelas) LC50 96 h: = 57 mg/L semi-static (Pimephales promelas) LC50 96 h: = 88 mg/L static (Pimephales promelas) | EC50 = 179 mg/L 210 min | EC50 24 h: = 180 mg/L (Daphnia magna) |
| Eugenol 97-53-0 | | LC50 67.6 mg/l Oncorhynchus kisutch (Coho salmon) 96 h static | | |
| 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 |
|----------------------------|---------|
| Benzaldehyde | 1.48 |
| Acetophenone | 1.73 |
| Vanillin | 1.23 |
| Eugenol | 2.27 |
| 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 Do not re-use empty containers. 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 | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|------------------------|------|-----------------------------------|------------------------|------------------------|
| Acetophenone - 98-86-2 | U004 | Included in waste stream: F039 | | U004 |

14. TRANSPORT INFORMATION

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

MEX

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
 Description UN1169, Extracts, aromatic, liquid, 3, III, (53°C c.c.)

RID

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

Forbidden
 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
 Limited Quantity 5 L
 Ventilation VE01

| |
|-----------------------------------|
| 15. REGULATORY INFORMATION |
|-----------------------------------|

International Inventories

TSCA Complies
 DSL Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

| Chemical Name | CAS-No | Weight % | SARA 313 - Threshold Values % |
|---------------|---------|----------|-------------------------------|
| Acetophenone | 98-86-2 | 8 | 1.0 |

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, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ |
|---------------|--------------------------|------------------------------------|--|
| Acetophenone | 5000 lb | | RQ 5000 lb final RQ RQ 2270 kg final RQ |

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 |
|---------------|------------|---------------|--------------|----------|--------------|
| Benzaldehyde | X | X | X | | X |
| D-Limonene | X | | | X | |
| Acetophenone | X | X | X | 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.

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

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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