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

Product identifier
Product name VITAL-ICE PULP VITALITY SPRAY

Recommended use of the chemical and restrictions on use

Product code PE-VI-01
Product Type Non-flammable aerosol
Synonyms None

Supplier's details
Recommended Use Pulp Vitality Spray.
Uses advised against No information available

Manufacturer
Pac-Dent International Inc.
670 Endeavor Circle
Brea, CA 92821
909-839-0888

Emergency telephone number
Chemical Emergency Phone Number Chemtrec 1-800-262-8200 ID 1195
Company Emergency Phone Number 909-839-0888
2. HAZARDS IDENTIFICATION

Classification
Gases under pressure  Compressed Gas

GHS Label elements, including precautionary statements

Emergency Overview

WARNING

Hazard Statements
Contains gas under pressure; may explode if heated

Appearance  opaque
Physical state  Aerosol
Odor  Peppermint Scent

Precautionary Statements - Storage
Protect from sunlight. Store in a well-ventilated place

Hazards not otherwise classified (HNOC)
None

Other information
1.7E-06% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-TETRAFLUORETHANE</td>
<td>811-97-2</td>
<td>90-100</td>
</tr>
</tbody>
</table>

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

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice
Avoid contact with eyes, skin, and clothing. Avoid breathing, vapors, mist, or gas.

Eye contact
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention/advice.
Skin contact
Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. Get medical attention immediately if symptoms occur.

Inhalation
Move to fresh air. If not breathing, give artificial respiration. If breathing has stopped, contact emergency medical services immediately.

Ingestion
Do NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person. Risk of product entering the lungs on vomiting after ingestion.

Most important symptoms/effects, acute and delayed
Main Symptoms
Not applicable.

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Specific hazards arising from the chemical

Explosion Data
Sensitivity to Mechanical Impact none.
Sensitivity to Static Discharge none.

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
Ensure adequate ventilation.

Environmental precautions

Environmental precautions
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and materials for containment and cleaning up

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities
VITAL-ICE PULP VITALITY SPRAY

Technical measures/Storage conditions
Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products
None known based on information supplied.

Aerosol Level
1

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-TETRAFLUORETHANE</td>
<td>TWA: 1000 ppm 8 hours.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>811-97-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACGIH: (American Conference of Governmental Industrial Hygienists)
OSHA: (Occupational Safety & Health Administration)

Exposure 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
Chemical resistant apron. Protective gloves.

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
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state
Aerosol

Appearance
opaque

Color

Odor
Peppermint Scent

Odor Threshold

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td></td>
</tr>
<tr>
<td>upper flammability limit</td>
<td>No information available</td>
</tr>
<tr>
<td>lower flammability limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.25</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Practically insoluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td></td>
</tr>
</tbody>
</table>
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
Extremes of temperature and direct sunlight.

Incompatible Materials
None known based on information supplied.

Hazardous Decomposition Products

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

<table>
<thead>
<tr>
<th>Route</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Avoid breathing vapors or mists.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Avoid contact with eyes and skin.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Avoid contact with skin.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Do not taste or swallow.</td>
</tr>
</tbody>
</table>

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LCS0 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>t,1,1,2-TETRAFLUORETHANE</td>
<td>-</td>
<td>-</td>
<td>= 1500 g/m³ (Rat) 4 h</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
None under normal use.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
None known.

Germ Cell Mutagenicity
None known.

Carcinogenicity
There are no known carcinogenic chemicals in this product.

Reproductive toxicity
This product does not contain any known or suspected reproductive hazards.

Specific target organ systemic toxicity (single exposure)
None under normal use conditions.

Specific target organ systemic toxicity (repeated exposure)
None under normal use conditions.
Chronic toxicity
Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Prolonged skin contact may defat the skin and produce dermatitis.

Aspiration hazard
Not applicable.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity
1.7E-06% of the mixture consists of ingredient(s) of unknown toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

Persistence and degradability
.

Bioaccumulation
.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-TETRAFLUORETHANE</td>
<td>1.06</td>
</tr>
</tbody>
</table>

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods
It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.

Contaminated packaging
Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Ground
CONSUMER COMMODITY ORM-D
or
LIMITED QUANTITY

IATA
UN1950, AEROSOLS, 2.2,LTD. QTY.

IMDG
UN1950, AEROSOLS, 2.2,LTD. QTY.

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL/NDSL</th>
<th>EINECS/ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-TETRAFLUORETHANE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
U.S. Federal Regulations

SARA 313
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: no
- Chronic Health Hazard: no
- Fire Hazard: no
- Sudden Release of Pressure Hazard: Yes
- 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 known Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

EPA Pesticide Registration Number
Not applicable

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and chemical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>
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