

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 10/29/2020

Reviewed on 10/29/2020

**1 Identification**

- **Product identifier**
- **Trade name:** Ultrasep™ III
- **Article number:** 176
- **Index number:** SDS 373-001.03
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Ultradent Products Inc.  
505 W. Ultradent Drive (10200 S)  
South Jordan, UT 84095-3942  
USA  
onlineordersupport@ultradent.com
- **Information department:** Customer Service
- **Emergency telephone number:**  
CHEMTREC (NORTH AMERICA) : (800) 424-9300  
(INTERNATIONAL) : +(703) 527-3887

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Gas 1 H220 Extremely flammable gas.



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

- **Label elements**
- **GHS label elements** The product is classified according to the Globally Harmonized System (GHS)
- **Hazard pictograms**



GHS02



GHS04



GHS07

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**  
*dimethyl ether*
- **Hazard statements**  
*Extremely flammable gas.*  
*Contains gas under pressure; may explode if heated.*

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*Harmful if inhaled.*

- **Precautionary statements**

- P210 *Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*
- P261 *Avoid breathing dust/fume/gas/mist/vapors/spray*
- P271 *Use only outdoors or in a well-ventilated area.*
- P304+P340 *IF INHALED: Remove person to fresh air and keep comfortable for breathing.*
- P312 *Call a poison center/doctor if you feel unwell.*
- P377 *Leaking gas fire: Do not extinguish, unless leak can be stopped safely.*
- P381 *Eliminate all ignition sources if safe to do so.*
- P410+P403 *Protect from sunlight. Store in a well-ventilated place.*

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

75-37-6	1,1-difluoroethane	☞ Flam. Liq. 1, H224	<65%
115-10-6	dimethyl ether	☞ Flam. Gas 1, H220; ☞ Press. Gas, H280; ☞ Acute Tox. 2, H330	<30%

### 4 First-aid measures

- **Description of first aid measures**

- **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:**

Immediately remove all soiled and contaminated clothing.

Rinse with warm water.

- **After eye contact:** Rinse opened eye for several minutes under running water.

- **After swallowing:** If symptoms persist consult doctor.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Alcohol resistant foam  
Water spray  
Carbon dioxide  
Dry Chemical  
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** Carbon Dioxide
- **Advice for firefighters**  
General: Evacuate all personnel; use protective equipment for fire-fighting. Use self-contained breathing apparatus when the product is involved in fire.
- **Protective equipment:**  
Wear fully protective suit.  
Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).  
Evacuate personnel to safe areas.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

75-37-6	1,1-difluoroethane	10,000 ppm
115-10-6	dimethyl ether	3,000 ppm

- **PAC-2:**

75-37-6	1,1-difluoroethane	15,000 ppm
115-10-6	dimethyl ether	3800* ppm

- **PAC-3:**

75-37-6	1,1-difluoroethane	25,000 ppm
115-10-6	dimethyl ether	7200* ppm

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Keep away from heat, sparks, and flame.

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- Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**
  - Protect from heat.
  - Protect against electrostatic charges.
  - Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    - See product labelling.
    - Store in a cool place.
    - Protect from heat
    - Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
  - At this time, the remaining constituent has no known exposure limits.

### 115-10-6 dimethyl ether

WEEL	Long-term value: 1000 ppm
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:**
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  - Selection of the glove material is based on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
  - The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
  - The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Body protection:** Protective work clothing

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## 9 Physical and chemical properties

· <b>Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Aerosol
· <b>Color:</b>	Colorless
· <b>Odor:</b>	Ether-like
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value:</b> Not determined.	
· <b>Change in condition</b>	
· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Undetermined
· <b>Flash point:</b> Not applicable	
· <b>Flammability (solid, gaseous):</b> Not determined.	
· <b>Decomposition temperature:</b> Not determined.	
· <b>Auto igniting:</b> Product is not selfigniting.	
· <b>Danger of explosion:</b> Container explosion may occur under fire conditions. Container may explode if heated above 51.66 °C (125 °F)	
· <b>Explosion limits:</b>	
· <b>Lower:</b>	3 Vol %
· <b>Upper:</b>	20.2 Vol %
· <b>Vapor pressure:</b> Not determined.	
· <b>Density:</b> Not determined	
· <b>Relative density</b> Not determined	
· <b>Vapor density</b> Not determined.	
· <b>Evaporation rate</b> Not applicable.	
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Negligible
· <b>Partition coefficient (n-octanol/water):</b> Not determined.	
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	<100 %
· <b>VOC content:</b>	<30.00 %
· <b>Solids content:</b> >0.0 %	
· <b>Other information</b> No further relevant information available.	

## 10 Stability and reactivity

- **Reactivity** Stable when stored and handled under recommended conditions.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.

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- **Conditions to avoid**  
Ignition sources  
Heat  
Flames
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon dioxide

## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

### ATE (Acute Toxicity Estimate)

Dermal	LD50	>40,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>610 mg/l

### 75-37-6 1,1-difluoroethane

Inhalative	LC50/4 h	977 mg/l (mouse)
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### 115-10-6 dimethyl ether

Inhalative	LC50/4 h	308 mg/l (rat)
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- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:** Harmful

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Germ cell mutagenicity** Does not meet the classification criteria for this hazard class.

- **Carcinogenicity** Does not meet the classification criteria for this hazard class.

- **Reproductive toxicity** Does not meet the classification criteria for this hazard class.

- **Specific target organ toxicity - single exposure** Does not meet the classification criteria for this hazard class.

- **Specific target organ toxicity - repeated exposure** Does not meet the classification criteria for this hazard class.

- **Aspiration hazard** Does not meet the classification criteria for this hazard class.

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, IMDG, IATA</b></li> </ul>	UNI964
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	Hydrocarbon gas mixture, compressed, n.o.s. HYDROCARBON GAS MIXTURE, COMPRESSED, N.O.S.
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	2 Gases 2.1
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	2 Gases 2.1
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, IMDG, IATA</b></li> </ul>	Not Regulated
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Category</b></li> </ul>	Warning: Gases 23 F-D,S-U E

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· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: Forbidden On cargo aircraft only: 150 kg
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	0
· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
· <b>UN "Model Regulation":</b>	UN 1964 HYDROCARBON GAS MIXTURE, COMPRESSED, N.O.S., 2.1

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified according to the Globally Harmonized System (GHS)

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## · Hazard pictograms



GHS02   GHS04   GHS07

· Signal word *Danger*

## · Hazard-determining components of labeling:

*dimethyl ether*

## · Hazard statements

*Extremely flammable gas.**Contains gas under pressure; may explode if heated.**Harmful if inhaled.*

## · Precautionary statements

*P210      Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**P261      Avoid breathing dust/fume/gas/mist/vapors/spray**P271      Use only outdoors or in a well-ventilated area.**P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.**P312      Call a poison center/doctor if you feel unwell.**P377      Leaking gas fire: Do not extinguish, unless leak can be stopped safely.**P381      Eliminate all ignition sources if safe to do so.**P410+P403 Protect from sunlight. Store in a well-ventilated place.*· Chemical safety assessment: *A chemical safety assessment has not been carried out.*

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· Department issuing SDS: *Environmental, Health & Safety*· Contact: *Customer Service*· Date of preparation / last revision *10/29/2020 / -*

## · Abbreviations and acronyms:

*IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**ACGIH: American Conference of Governmental Industrial Hygienists**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**OSHA: Occupational Safety & Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**Flam. Gas 1: Flammable gases – Category 1**Press. Gas: Gases under pressure – Compressed gas**Flam. Liq. 1: Flammable liquids – Category 1**Acute Tox. 2: Acute toxicity – Category 2**Acute Tox. 4: Acute toxicity – Category 4*