

## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product Identifier

**Product Name:** IC-Tip Freeze Spray  
**Common Name:** Orthodontic Supplies - Orthodontic Supplies: Freeze  
**Material:** 1, 1, 1, 2-tetrafluoroethane (HFC 134a)  
**Restrictions on Use:** American Orthodontics' products are used for the treatment of malocclusions and craniofacial abnormalities as diagnosed by a trained dental professional or orthodontist. Federal law restricts this device to use by or on the order of a dentist or orthodontist.  
**EC No.:** 212-377-0  
**REACH Registration No.:** 01-2119459374-33-0000 through 01-2119459374-33-0014  
**CAS No. / IUPAC:** 811-97-2

### 1.2 Relevant Identified Uses/ Uses Advised Against

**Relevant identified uses:** Dental/Orthodontic use only; for orthodontic wire insertion  
**Uses advised against:** Not for Consumer use. Please see "Restrictions on Use"

### 1.3 Details of the Supplier of the Safety Data Sheet

**Company Name:**  
 American Orthodontics  
 3524 Washington Avenue  
 Sheboygan, WI 53081  
 Phone: 920-457-5051  
 Fax: 920-457-1485  
  
**E-mail:** info@americanortho.com  
**National Contact:** Safety Department

### 1.4 Emergency Telephone Number

**Emergency Response Number:**  
 920-457-5051  
 Only available during office hours: 8:00AM – 5:00PM (Central Time)  
 Language of Phone Service: English

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not Listed

#### 2.1.2 Classification according to Directive 67/548/EEC

Not Listed

#### 2.1.3 Additional information:

**Human Health:** Prolonged skin contact may cause redness, irritation and dry skin. Mild dermatitis, allergic skin rash

**Inhalation:** Vapors irritate the respiratory system and may cause coughing and difficulties in breathing

**Ingestion:** May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication

Skin Contact: Acts as defatting agent on skin. May cause cracking of skin and eczema.  
Contact with liquid form may cause frostbite.

Eye Contact: May cause temporary eye irritation

Other Health Effects: This substance has no evidence of carcinogenic properties

Physical & Chemical Hazards: Aerosol containers can explode when heated, due to excessive pressure build-up. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Gas/Vapor displaces oxygen available for breathing (asphyxiant). Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered small.

## 2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

### Hazard Pictogram(s)



### Signal Word(s): Warning

Hazard Statements:

Contains gas under pressure; may explode if heated

Precautionary Statements:

Keep away from heat, open flames and hot surfaces

Wear protective gloves, eye shield and suitable protective clothing to prevent splashing

Supplemental Hazard information (EU):

Not Applicable

## 2.3 Other Hazards

Aerosol containers can explode when heated, due to excessive pressure build-up. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Gas/Vapor displaces oxygen available for breathing (asphyxiant). Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered small.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient(s)</u>	<u>CAS No.</u>	<u>EC No.</u>	<u>Wt. % Content (or Range)</u>
1, 1, 1, 2-tetrafluoroethane (HFC 134a)	811-97-2	212-377-0	100%

GHS Classification: Not Classified

## 4. FIRST-AID MEASURES

### 4.1 Description of First-Aid Measures

General Notes: Accidental exposure to this chemical in any form will likely require first aid. If in doubt, get medical attention promptly! Contact with product in liquid form may cause severe frostbite. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS. Place unconscious person on his/her side in the recovery position and ensure airways are free. Perform artificial respiration if breathing has stopped. Keep out of reach of children.

Inhalation: Move into fresh air and keep at rest. If respiratory problems persist, provide artificial respiration/oxygen and see a physician immediately.

Skin Contact: Contact with liquid form may cause frostbite or tissue damage. Remove contaminated clothing and rinse skin thoroughly with water.

Eye Contact: Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from eyes before rinsing. Consult a physician for specific advice.

Ingestion/Swallowing: DO NOT INDUCE VOMITING! Immediately rinse mouth and drink plenty of water (200-300 ml). Consult a physician immediately.

### 4.2 Important Symptoms and Effects

General: Contact with product in liquid form may cause frostbite. The severity of symptoms described will vary dependent on the concentration and length of exposure to product.

Inhalation: Vapors may cause headache, fatigue, dizziness and nausea

Ingestion: Due to the physical nature of this material, it is unlikely that swallowing will occur. Drowsiness, dizziness, disorientation, vertigo.

Skin Contact: Contact with liquefied gas might cause frostbites, in some cases with tissue damage.

Eye Contact: Visual disturbances including blurred vision.

### 4.3 Medical Attention & Special Treatment Necessary

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

## 5. FIRE AND EXPLOSION HAZARDS

### 5.1 Extinguishing Media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

### 5.2 Special Exposure Hazards from Substance/Mixture

Hazardous Combustion Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Unusual Fire & Explosion Hazards: Aerosol containers can explode when heated due to excessive pressure build-up.

Specific Hazards: Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

### 5.3 Advice for Firefighters

Firefighting Methods: Move container from area if it can be done without risk.

Special protective equipment for fire-fighters: Self-contained breathing apparatuses and full protective clothing must be worn in case of fire.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions, Protective Equipment & Emergency Procedures

#### 6.1.1 For Non-Emergency Personnel

Protective Equipment: Tight-fitting safety glasses, suitable protective clothing and gloves, self-contained breathing apparatus with full face piece.

Emergency Procedure: Warn everyone of potential hazards and evacuate area if necessary. Ventilate well, avoid breathing vapors. If air contamination is above accepted level, use approved respirators.

#### 6.1.2 For Emergency Responders

Wear suitable protective clothing and gloves, tight-fitting safety glasses, and approved respirator with full face piece.

### 6.2 Environmental Precautions

Contain spillage with sand, earth, or any suitable absorbent material. Avoid release into the environment.

### 6.3 Methods & Material for Containment & Cleaning Up

#### 6.3.1 For Containment

Contain spillage with sand, earth, or any suitable absorbent material.

#### 6.3.2 For Cleaning Up

Sand, earth, or any suitable absorbent material

## 7. HANDLING AND STORAGE

### 7.1 Precautions for Safe-Handling

Protective Measures:

Provide good ventilation. Avoid inhalation of vapors/sprays and contact with skin and eyes.

Avoid contact with naked flames and hot surfaces as corrosive and decomposition products can be formed. Keep out of reach of children.

Advice on General Occupational Hygiene:

When working with this product, do not eat drink or smoke. Wear suitable protective clothing, gloves and tight-fitting safety glasses where splashing is possible.

### 7.2 Conditions for Safe Storage, Including Any Incompatibilities

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C (122°F).

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control Parameters

No data available

### 8.2 Exposure Controls

#### 8.2.1 Appropriate Engineering Controls

No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation.

#### 8.2.2 Personal Protective Equipment

##### 8.2.2.1 Eye & Face Protection

- Wear approved, tight fitting safety glasses where splashing is probable

##### 8.2.2 Skin Protection

Hand Protection

- For prolonged or repeated contact use suitable protective gloves

Other Skin Protection

- Wear suitable protective clothing as protection where splashing is possible

##### 8.2.2.3 Respiratory Protection

- Vapors are heavier and may travel along the floor and in the bottom of containers. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Self-contained breathing apparatus with full face piece.

Reference Section 5 for specific personal protective equipment advice

#### 8.2.3 Environmental Exposure Controls

None

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Basic Physical & Chemical Properties

Appearance:	Liquid Gas Aerosol
Color:	Colorless
Odor:	Slight odor. Ether
Flammability (solid, gas):	Not flammable
Vapor Pressure:	96 PSIA 25°C / 77°F
Vapor Density:	3.6 @ 25°C/ 77°F
Solubility(ies):	Slightly soluble in water
Oxidiz	

### 9.2 Other Information

Physical Data Comments:	Aerosol
Volatility Description:	Highly volatile
Volatile By Vol. (%):	100

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No specific hazards are associated with this product.

### 10.2 Chemical Stability

Stable under normal temperature conditions and recommended use

### 10.3 Conditions of Instability

None

### 10.4 Possibility of Hazardous Reactions

None

### 10.5 Conditions to Avoid

Avoid exposing aerosol containers to high temperatures or direct sunlight. Avoid contact with naked flames and hot surfaces, as corrosive and toxic decomposition products can be formed.

### 10.6 Incompatible Materials

Alkali metals, alkali earth metals, powdered metals

### 10.7 Hazardous Decomposition Products

When heated, toxic and corrosive vapors/gases may be formed, like halogenated hydrocarbons, hydrogen fluoride (HF), carbon monoxide (CO), or carbon dioxide (CO<sub>2</sub>).

### 10.8 Hazardous Polymerization

None

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on Toxicological Information

This substance has no evidence of carcinogenic properties.

#### 11.1.1 Acute Toxicity

Toxic does 1 – LD 50  
>2085 mg/kg (oral rat)

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Acute (Short-Term) Toxicity:

Fish: Not considered toxic to fish.

Chronic (Long-Term) Toxicity: No Data Available

### 12.2 Persistence and Degradability

No Data Available

### 12.3 Bio accumulative Potential

No Data Available

**12.4 Mobility in Soil**

No Data Available

**12.5 Results of PBT and vPvB Assessment**

This product does not contain any PBT or vPvB substance

**12.6 Other Adverse Effects**

This product contains substances that contribute to global warming/ greenhouse effect.

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste Treatment Methods**

**13.1.1 Product/Packaging disposal:**

Treat all waste as controlled waste. Dispose to licensed disposal site in accordance with Waste Disposal Authority.

**13.1.2 Waste Treatment – relevant information:**

None

**13.1.3 Sewage Disposal –relevant information:**

None

**13.1.4 Other Disposal recommendations:**

Dispose of waste and residues in accordance with local authority requirements.

**14. TRANSPORTATION INFORMATION**

**14.1 UN Number**

UN No. (DOT/TDG): UN1950

UN No. (ICAO): UN1078 (ref.US DOT-SP 10232)

**14.2 DOT Proper Shipping Name**

Aerosol, Nonflammable

Consumer Commodity ORM-D (USA)

**14.3 Transport Hazard Class(es)**

Non-flammable GAS, 2.2

**14.4 Packing Group**

N/A

**14.5 Environmental Hazards**

None

**14.6 Special Precautions for User**

None

**14.7 Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code**

N/A

**15. REGULATORY INFORMATION**

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

**EU Regulations**

None

**Other EU Regulations:**

None

**National Regulations (USA):**

US-TSCA: All ingredients are listed or exempt

US-TSCA 12(b) Export Notification: None of the ingredients are listed

**Regulatory Status (US):**

TSCA: The ingredients of this product are on the TSCA Inventory. SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

**Canada DSL/NDSL Regulations:**

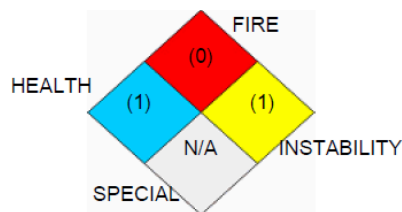
All ingredients are listed or exempt

**15.2 Chemical Safety Assessment:**

No chemical safety assessment has been carried out for this substance/mixture by the supplier.

**16. ADDITIONAL INFORMATION**

**National Fire Protection Association (NFPA)**



**Hazard Material Information System (HMIS)**

HEALTH	1
FLAMMABILITY	0
PHYSICAL	1
PERSONAL PROTECTION	A



**16.1 Indication of changes/revision to SDS:**

1. New format
2. Inclusion of EC Requirements
3. *Revision Date:* 04/03/2015

**16.2 Abbreviations and acronyms:**

None

**16.3 Key literature references and sources for data**

1. Guidance on the Compilation of Safety Data Sheets; European Chemical Agency (ECHA); Version 2.1, February 2014
2. Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labelling, and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**16.4 Classification and procedure used to derive classification for mixtures according to Regulation (EC) 1272/2008[CLP]:**

Not Applicable

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in the SDS was obtained from sources that we believe are reliable and is believed to be valid and accurate. American Orthodontics, however, makes no warranty, express or implied, regarding its correctness of the information provided. The conditions or method of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. If the product is used as a component in another product or used in a way other than recommended by the Company, this SDS information may not be applicable. **Reasonable safety precautions must always be observed.**