

 北京信为兢创科技有限公司 BEIJING XINWEI JINGCHAUNG TECHNOLOGY CO.,LTD	编号 No.	WI-FW-010
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1、 Identification

1.1 Chemical name: HFE	Product name: Thinvec 7100
1.2 Recommended use: For precision cleaning, dilution solvent and additive for cosmetic fluids.	
1.3 Supplier's details Manufacturer: Bijing XinWeiJingChuang Technology co., Ltd Address: Room 315, Building 3 Yongchang Industrial Park, No.3 Yongchang North Road, Yizhuang Economic and Technological Development Zone, Beijing Telephone: 400-061-3706 E-mail: Technical@thinvec.com Website: www.thinvec.com	
1.4 Emergency telephone No.:	400-061-3706

2、 Hazard identification

2.1 Hazard classification Not classified as hazardous according to GB-13690-2009			
2.2 Label elements 【Symbols】 NA 【Signal word】 NA Hazard Statements Clear colorless liquid with slight odor. Precautionary Statements 【Prevention】 Not special requirement. 【Response】 Not special requirement. 【Safe storage】 Not special requirement. 【Disposal】 Not special requirement. Dispose of contents/container in accordance with applicable local/regional/national/international regulations.			
2.3 Other Hazard None			
3、 Composition/information on ingredients			
3.1 Pure/Mixture:		Pure	
3.2 English name:		HFE	
3.3 Synonymous name:		Thinvec 7100	
3.4 Chemical formula:		/	
3.5 Composition/information on ingredients:			
Chemical Name	EC No.	CAS No.	Content (%)

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Methyl perfluoroisobutyl ether	163702-08-7	≥99.5%
Methyl perfluorobutyl ether	163702-07-6	

4、First aid measures

4.1 Description of first aid measures	
First aid measures with different exposure:	
Eye Contact	Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.
Skin Contact	Wash with soap and water. If signs/symptoms develop, get medical attention.
Inhalation	Remove person to fresh air. If you feel unwell, get medical attention.
If Swallowed	Rinse mouth. If you feel unwell, get medical attention.
Protection of emergency rescuer	Please refer to other sections of this MSDS
4.2 Most important symptoms and effects, both acute and delayed	
Not applicable	
4.3 Indication of any immediate medical attention and special treatment required	
Not applicable	

5、Fire-fighting measures

5.1 Suitable extinguishing media
Non-combustible. Use a fire fighting agent suitable for surrounding fire.
5.2 Special fire-fighting measures
Put out the fire from the windward side. According to the surrounding environment, select suitable fire-fighting measures.
5.3 Special hazards arising from the substance or mixture
Exposure to extreme heat can give rise to thermal decomposition.
Hazardous Decomposition or By-Products Substance
Hydrogen Fluoride
Condition
During Combustion
5.4 Special protective actions for fire-fighters
When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.
6、Accidental release measures
6.1 Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

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6.2 Environmental precautions
 Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3 Methods and material for containment and cleaning up
 Contain spill. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Place in a closed container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

6.4 Precautions against secondary disasters
 Not applicable

7、 Handling and storage

7.1 Precautions for safe handling
 Do not breathe thermal decomposition products. For industrial or professional use only. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

7.2 Conditions for safe storage including any incompatibilities
 Store in a well-ventilated place. Store away from heat. Store away from strong bases. Store away from other materials. Store away from amines.

8、 Exposure controls/personal protection

8.1 Occupational exposure limits
 TWA: 750 ppm

8.2 Engineering controls
 Provide appropriate local exhaust when product is heated. For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines.

8.3 Personal protective equipment (PPE)

Respiratory protection	Air exposure is very low in normal use. The respirator isn't required. During heating: Use a positive pressure supplied-air respirator if there is a potential for over exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.
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Skin/hand protection	Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Gloves made from the following material(s) are recommended: Nitrile Rubber.
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Eye/face protection	Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended: Safety Glasses with side shields
Body Protection	Select and use protective clothing approved to relevant local standards. If needed, pls use protective boots.
Thermal hazards	To avoid heat, consulting with your glove manufacturer for selection of appropriate compatible gloves/protective clothing. Gloves are made from the following material(s) are recommended: Nitrile Rubber

9、Physical and chemical properties

a) Appearance	
b) Physical form	Liquid
c) Odor, Color	Clear colorless liquid with slight odor
d) pH	NA
e) Melting Point	NA
f) Boiling Point	60°C
g) Relative Vapor Density	8.6 [Ref Std:AIR=1]
h) Specific Gravity(Water=1)	1.5 [@ 20 °C]
i) Vapor Pressure	25.6Kpa [@ 25 °C]
j) Critical pressure (MPa)	NA
k) Density	1.5g/ml
l) Flash Point (°C)	No
m) Freeze Point (°C)	-135
n) Surface Tension (dyn/cm)	13.6
o) Latent Heat of evaporation (KJ/kg) @b.p.	112
p)Viscosity (cp@25°C)	0.6

10、Stability and reactivity

10.1 Reactivity The material may be reactive with certain agents under certain conditions - see the remaining headings in this section.
10.2 Chemical stability Stable.
10.3 Possibility of hazardous reactions Hazardous polymerization will not occur.
10.4 Conditions to avoid Heat
10.5 Incompatible materials Alcohols, Amines, Strong bases, Strong acid, Strong Oxidant

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10.6 Hazardous decomposition products

Substance	Condition
HF	- Extreme condition of heat
Toxic vapor, particle	- During extreme condition of heat

If the product is exposed to extreme condition of heat from misuse or equipment failure, toxic decomposition products that include hydrogen fluoride and perfluoroisobutylene can occur. Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

11、 Toxicological information

11.1 Acute Toxicity

Name	Route	Species	Value
Thinvec 7100	Dermal		LD50 estimated to be > 5,000 mg/kg
Thinvec 7100	Inhalation- Vapor (4 hours)	Rat	LC50 > 1,000 mg/l
Thinvec 7100	Ingestion	Rat	LD50 > 5,000 mg/kg

11.2 Skin Corrosion/Irritation:

No significant irritation.

11.3 Serious Eye Damage/Irritation

No significant irritation

11.4 Inhalation:

No known health effects.

11.5 Germ Cell Mutagenicity

Not mutagenic

11.6 Carcinogenicity

Either no data are currently available or the data are not sufficient for classification.

11.7 Reproductive Toxicity

NA

11.8 Specific Target Organ Toxicity-single exposure

NA

11.9 Specific Target Organ Toxicity - repeated exposure

No known health effects.

12、 Ecotoxicological information

12.1 Aquatic/terrestrial Ecotoxicological information

NA

12.2 Durability and degradability

NA

12.3 Mobility in soil

NA

12.4 Potential for biological accumulation

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NA
12.5 Other adverse effects
NA

13、 Disposal considerations

<p>13.1 Disposal methods</p> <p>Dispose of contents/ container in accordance with the local/regional/national/international regulations.</p> <p>Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include HF. Facility must be capable of handling halogenated materials. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.</p>
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14、 Transport Information

<p>For Transport Information, pls contact selling division for more information.</p> <p>China transport risk level: NA</p> <p>Global regulations UN number: NA</p> <p>United Nations correct shipping name: NA</p> <p>Transportation classification (IMO): NA</p> <p>Transportation classification (IATA) NA</p> <p>Package categories: NA</p> <p>Environmental hazards: NA</p> <p>Marine pollutant: No</p> <p>Special remarks: NA</p>
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15、 Regulation Information

<p>The product complies with China's new substance and environment regulations, and all ingredients are listed or exempted from the existing list of chemical substances. This safety technical specification conforms to the following national standards:</p> <p>GB/T16483-2008</p> <p>GB13690-2009</p> <p>GB15258-2009</p> <p>GB6944-2005</p> <p>GB/T15098-2008</p> <p>GB18218-2009</p> <p>GB190-2009</p> <p>GB/T191-2008</p> <p>GB12268-2012</p>
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GA57-1993

16、 Other information

<p>DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.</p>
2) Any issues for MSDS, pls contact our sales representative.
3) The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued.
4) Editing Date: Jan.11, 2019
5) Final amending date: Jan.25, 2019