

**Weiss Bonya**

**Gemini<sup>®</sup>**

# Fluorinated Engineered Fluid

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Material Safety Data Sheet

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## 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

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### Product Name

"Gemini" Fluorinated Engineered Fluid

### Tradenames and Synonyms

"Gemini" PFS-232

### HUNAN WEISS BONYA CO., LTD

Add: No.10, Wangchengpo, Yuelu district, Changsha, Hunan, China

Email: weissbonya@gmail.com

Web: <http://www.weissbonya.com>

Emergency phone No. 24 hours : + 86-731-84225539

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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Component	CAS-No.	Concentration
Ethyl nonafluorobutyl ether	163702-05-4	20%~80%
Ethyl nonafluoroisobutyl ether	163702-06-5	20%~80%

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## 3. HAZARDS IDENTIFICATION

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### Emergency Overview

The product as such is not hazardous. The thermal decomposition vapours of fluorinated polymers may result in lung effects.

### Potential Health Effects

Skin : May cause slight irritation, Redness.

Eyes : May cause discomfort, Blurred vision.

Inhalation : May cause respiratory irritation.

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## 4. FIRST AID MEASURES

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### First Aid

**INGESTION**

If swallowed, wash out mouth with copious amounts of water provided person is conscious, call a physician.

**INHALATION**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**SKIN CONTACT**

In case of contact, immediately wash skin with soap and water. Wash contaminated clothing before reuse.

**EYE CONTACT**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

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**5. FIRE FIGHTING MEASURES**

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**Flash point**

None

**Extinguishing Media**

Water spray, alcohol resistant foam, dry chemical, or carbon dioxide. Cool all affected containers with flooding quantities of water.

**Fire Fighting Instructions**

Protective equipment: wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazard(s): emits toxic fumes under fire conditions.

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**6. ACCIDENTAL RELEASE MEASURES**

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**Safeguards (Personnel)**

Avoid breathing vapor mist, or gas. Ensure adequate ventilation. Wear protective equipment including rubber gloves, and eye protection. Keep unprotected persons away. Normal measures of preventive fire protection.

**Environmental precautions**

Prevent further leakage or spillage if safe to do. Take precautions to ensure product does not contaminate the ground or enter the drainage system.

**Spill Clean Up**

Absorb on dry sand or vermiculite, sweep up and place in container for disposal according to local regulations.

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## 7. HANDLING AND STORAGE

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### Handling (Personnel)

User exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

### Storage

Store in cool, well ventilated area. Keep container tightly closed. Avoid direct sunlight.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Engineering controls

Safety shower and eyes bath. Mechanical exhaust required.

### Personal protective equipment

Respiratory: Use a full-face respirator with multi-purpose combination (US) or type abek (EN 14387) respirator cartridges as a backup to engineering controls.

If the respirator is the sole means of protection, use a full-face approved under appropriate government standards such as NIOSH(US) or CEN(EU).

Hand: Protective gloves. gloves must be inspected prior to use.

Eyes: Chemical safety goggles.

### General Hygiene measures

Wash thoroughly after handling.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance: Transparent clear liquid

Density at 25°C: 1.43g/cm<sup>3</sup>

Boiling Point/Boiling Range : 76 °C

Flash Point : none

Melting Point : -138 °C

Surface Tension : 13.6 dynes/cm

Vapor Pressure: 109 mmHg @ 25°C

Ozone Depletion Potential : 0

Global Warming Potential : 55 (CO<sub>2</sub> = 1; 100 yrs)

Solubility in Water : insoluble in water, <20ppm

Molecular Weight : 264

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## 10. STABILITY AND REACTIVITY

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### **Stability**

Stable: stable under recommended storage conditions.

Materials to avoid: strong oxidizing agents, finely divided active metals, alkali and alkaline earth metals. Dry alkoxides may decompose violently.

Conditions to avoid: heat, flames and sparks, extremes of temperature, moisture and direct sunlight.

### **Hazardous decomposition products**

Hazardous decomposition products: carbon oxides, hydrogen fluoride.

### **Hazardous polymerization**

Hazardous polymerization: will not occur.

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## **11. TOXICOLOGICAL INFORMATION**

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### **Toxicological Data**

Oral Rat LD50: > 2000 mg/kg

Inhalation Rat LC50: > 989mg/l 4 H

### **Acute Toxicity**

No effects known

### **Route of exposure**

Inhalation: may be harmful if inhaled. Irritating to the respiratory tract.

Ingestion: may be harmful if swallowed.

Skin: may be harmful if absorbed through skin. Cause skin irritation.

Eyes: causes eye irritation.

### **Signs and symptoms of exposure**

To the best of our knowledge, The toxicological properties of this product have not been fully determined.

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## **12. ECOLOGICAL INFORMATION**

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### **Ecotoxicological Data**

EC50 Water flea (*Daphnia magna*): > 2.55 mg/L 48 H

LC50 Fathead minnow (*Pimephales promelas*): > 2.75 mg/L 96 H

IC50 Green algae (*Selenastrum capricornutum*): > 2.32 mg/L 96 H

### **Toxicity**

No data available.

### **Persistence and degradability**

No data available.

**Bioaccumulative potential**

No data available.

**Mobility in soil**

No data available.

**Other adverse effects**

No data available.

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**13. DISPOSAL CONSIDERATIONS**

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**Disposal operations**

Material should be disposed of in accordance with local, state and federal regulations.

**Disposal of packaging**

Dispose of as special waste in compliance with local and national regulations  
Observe all federal, state and local environmental regulations.

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**14. TRANSPORTATION INFORMATION**

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**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Packing group : None**

**Environmental hazards : None**

**Marine pollutant : None**

**NOT classified as dangerous in the meaning of transport regulations**

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**15. REGULATORY INFORMATION**

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**EPCRA:** Emergency Planning and Community Right-to-Know

**SARA 304** Extremely Hazardous Substances Reportable Quantity

This material does NOT contain any components with a section 304 EHS RQ

**SARA 302** Extremely Hazardous Substances Threshold Planning Quantity

This material does NOT contain any components with a section 302 EHS TPQ

**SARA 311/312 Hazards:** NO SARA Hazards

**SARA 313:** This material does NOT contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

**CERCLA Reportable Quantity :** This material does NOT contain any components with a CERCLA RQ

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## 16. OTHER INFORMATION

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Personal Protection rating to be supplied by user depending on use conditions.  
The data in this Material Safety Data Sheet relates only to the specific material designated here in and does not relate to use in combination with any other material or in any process.



Updated: September 16th, 2017