



# Material Safety Data Sheet

## 4-Methylpyrazol, (Fomepizole)

Effective Date: 12/06/2007 Review Date: .

### Section 1: Chemical Product and Company Identification

**Product Name:** Fomepizole (4-Methylpyrazole) **Emergency, call CHEMTREC:** 800-424-9300

**Chemical Name:** 4-methyl-1H-pyrazole **CAS Number:** 7554-65-6

**Formula:** C<sub>4</sub>H<sub>6</sub>N<sub>2</sub> **mw:** 82.11 **EINECS Number:** 231-445-0

**Distributor:** X-GEN Pharmaceuticals Inc.

**PO Box 445**

**Big Flats, NY 14845**

**Indication:** Antidote for Methanol or

Ethylene glycol poisoning

**Technical Assistance:** 607-562-2700

### Section 2: Composition, Information

| <u>Principle Components</u> | <u>Composition</u> | <u>OSHA PEL</u> |
|-----------------------------|--------------------|-----------------|
| 4-Methylprazole             | 1mg/mL             | n/f             |

### Section 3: Hazards Identification

Harmful if swallowed. Irritating to the eyes, respiratory system and skin.

**Carcinogenicity:** There have been no long term studies performed in animals to evaluate carcinogenic potential.

**Adverse Reactions:** Adverse effects may include headache, nausea, dizziness and increased drowsiness.

**Target Organs:** Skin, upper respiratory tract.

**Overdose Effects:** Nausea, dizziness, and vertigo were noted in healthy volunteers receiving 50 and 100 mg/kg doses of Fomepizole (at plasma concentrations of 290 to 520 µmol/L, 23.8 to 42.6 mg/L). These doses are 3 to 6 times the recommended dose. This dose dependent CNS effect was short-lived in most subjects and lasted 30 hours in 1 subject.

Fomepizole is dialyzable, and hemodialysis may be useful in treating cases of overdosage.

#### Acute Effects

**Eye:** Vapor or mist irritating to eyes and mucous membranes.

**Skin:** May be harmful if absorbed through skin. Irritating to skin.

**Inhalation:** Vapor or mist irritating to upper respiratory tract.

**Ingestion:** Moderately toxic.

**Medical Conditions Aggravated by Exposure:** To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**Pregnancy Comments:** Animal reproductive studies have not been conducted with Fomepizole. It is not known whether Fomepizole can cause fetal harm when administered to pregnant women or can affect reproductive capacity.

### Section 4: First Aid Measures

**Eye:** May cause irritation. Do not rub eyes. Flush with copious quantities of water for at least 15 minutes occasionally lifting the upper and lower eyelids. Contact physician immediately.

**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and clothes. Wash exposed area with soap and water. Contact a physician immediately.

**Ingestion:** Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of water. Contact a poison control center.

**Inhalation:** Remove from exposure and move to fresh air immediately. If victim is not breathing, give rescue breathing. If breathing is difficult, give supplemental oxygen as needed.

### **Section 5: Fire Fighting Measures**

**Flash Point:** 96°C (204.8°F)

**Upper Flammable Limit:** n/f

**Auto-Ignition Temperature:** n/f

**Lower Flammable Limit:** n/f

**Extinguisher Media:** In case of fire, use water, dry chemical, chemical foam.

**Fire and Explosion Hazards:** Product has slight fire hazard  
Emits Toxic vapors in fire conditions.

**Firefighting Procedures:** As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and full protective clothing to prevent contact with skin and eyes.

### **Section 6: Accidental Release Measures**

**Spill Response:** Notify safety personnel. Evacuate unnecessary personnel; wear self-contained breathing apparatus, heavy boots and heavy rubber gloves; wear disposable overalls and discard after use. Cover spilled material with sand vermiculite, or other absorbing media. Store in closed container and remove to a safe location for disposal by approved methods. Ventilate and wash area with water after completing clean up.

### **Section 7: Handling and Storage**

**Handling:** Use in chemical hood, do not breathe aerosol, or vapor. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage:** Store cool, dry place. Keep container tightly closed when not in use.

### **Section 8: Exposure Controls / Personal Protection**

**Engineering Controls:** Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne equipment. Exhaust hood should have a minimum velocity of 100 LFM.

**Respiratory Protection:** When working with small quantities in a well-ventilated area, respiratory protection may not be required. Appropriate OSHA/MSHA-approved chemical resistant respirator.

**PPE/Clothing:** Safety glasses face shield, or safety goggles. Lab Coat, PVC-coated gloves. Wash before eating, drinking, and at the end of shift.

**Contaminated Items:** Separate contaminated work clothes. Launder before re-use. Remove material from your shoes, and clean PPE.

**Exposure Limits:** n/f

### Section 9: Physical and Chemical Properties

**Physical State:** liquid  
**Color:** after melting, clear colorless - yellow  
**Melting Point:** 20-23°C  
**Vapor Density:** n/f  
**Boiling Point:** 99.0 – 100.0°C @ 6.0mm Hg  
**Reactivity in Water:** n/f  
**Vapor Pressure:** n/f  
**PH:** n/f

**Appearance:** clear  
**Odor:** slight  
**Solubility in Water:** soluble  
**Evaporation Rate:** n/f  
**Specific Gravity:** 0.9930g/cm<sup>3</sup>  
**Molecular Weight:** 82.12  
**% Volatile by Volume:** n/f

### Section 10: Stability and Reactivity

**Conditions to Avoid:** Avoid all contact, wear gloves, safety glasses (as a minimum), and face shield, lab coat.

**Incompatibilities:** Strong oxidizers, strong acids, acid chlorides.

**Decomposition Products:** When heated to decomposition, material emits oxides of nitrogen and oxides of carbon. (CO, CO<sub>2</sub>, NO<sub>x</sub>)

**Stable?** Yes, under normal temperatures and pressures. **Hazardous Polymerization?** No

### Section 11: Toxicological Information

**Oral Rat:** LD50: 534mg/kg

**IVN Rat:** LD50: 310mg/kg

**Oral Mouse:** LD50: 640mg/kg

**IVN Mouse:** LD50: 310mg/kg

**Target Organs:** Skin, Upper Respiratory tract.

**Irritancy Data:** n/f

**Listed as a Carcinogen? NTP:** No

**IARC:** No

**OSHA:** No

### Section 12: Ecological Information

Information is currently not available on the environmental impact of 4-Methylpyrazole. Handle in a manner that prevents spills or releases to the environment.

### Section 13: Disposal Considerations

Dispose of waste in accordance with all applicable Federal, State and local laws.

### Section 14: Transport Information

CAS # 7554-65-6 is not listed in the TSCA inventory

### Section 15: Regulatory Information

**SARA 313 listed?:** NO

**CERCLA listed?:** NO

**RCRA listed?:** NO

### Section 16: Other Information

Use of this product should be through or under the direction of a physician. This MSDS does not address therapeutic use of this material.

The information herein is believed to be accurate and represents the best information currently available to us. X-GEN Pharmaceuticals, Inc makes no warranties, express or implied with respect to such information, and we assume no liability resulting from it's use.