



## MATERIAL SAFETY DATA SHEET

Revision Date: 10/19/2009

MSDSANSI/ANSI/EN/150000000075/Version 5.2

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	FutureChem OABH
<b>Product Identification Number(s)</b>	12572-00, P1257201, P1257202, P125720S
<b>Manufacturer/Supplier</b>	FutureFuel Chemical Company Gap Road 2800 Batesville, AR 72503 US
<b>MSDS Prepared by</b>	Product Safety and Health
<b>Chemical Name</b>	ethanedioic acid, bis((phenylmethylene)hydrazide)
<b>Synonym(s)</b>	072986
<b>Molecular Formula</b>	C16H14N4O2
<b>Molecular Weight</b>	294.31
<b>Product Use</b>	inhibitor
<b>OSHA Status</b>	nonhazardous

For product information telephone FutureFuel Chemical Company 870-698-3000, 8:00 am - 4:00 pm, Central.

Emergency telephone CHEMTREC: US 800-424-9300, international 703-527-3887

### 2. COMPOSITION INFORMATION ON INGREDIENTS

(Typical composition is given, and it may vary. A certificate of analysis can be provided, if available.)

<u>Weight %</u>	<u>Component</u>	<u>CAS Registry No.</u>
100%	oxalyl bis(benzylidenehydrazide)	6629-10-3

### 3. HAZARDS IDENTIFICATION

WARNING!  
CAN DECOMPOSE AT ELEVATED TEMPERATURES

**HMIS® Hazard Ratings:** Health - 1, Flammability -1, Chemical Reactivity - 0

*HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.*

### 4. FIRST-AID MEASURES

**Inhalation:** If symptomatic, move to fresh air. Get medical attention if symptoms persist.

**Eyes:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

**Skin:** Wash with soap and water. Get medical attention if symptoms occur.

**Ingestion:** Seek medical advice.

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### 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** water spray, dry chemical

**Special Fire-Fighting Procedures:** Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool.

**Hazardous Combustion Products:** carbon dioxide, carbon monoxide, oxides of nitrogen

**Unusual Fire and Explosion Hazards:** Elevated temperatures can cause decomposition. Powdered material may form explosive dust-air mixtures.

### 6. ACCIDENTAL RELEASE MEASURES

Sweep up and place in a clearly labeled container for chemical waste.

### 7. HANDLING AND STORAGE

**Personal Precautionary Measures:** No special precautionary health measures should be needed under anticipated conditions of use.

**Prevention of Fire and Explosion:** Keep away from heat. Keep from contact with oxidizing materials. Minimize dust generation and accumulation. In the United States of America, refer to NFPA® Pamphlet No. 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries."

**Storage:** Keep container closed. Store in a cool place.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

*Country specific exposure limits have not been established or are not applicable unless listed below.*

**Ventilation:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances; such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: dust

**Eye Protection:** It is a good industrial hygiene practice to minimize eye contact.

**Skin Protection:** It is a good industrial hygiene practice to minimize skin contact.

**Recommended Decontamination Facilities:** eye bath, washing facilities

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical Form:** solid (powder)

**Color:** white

**Odor:** odorless

**Melting Point:** 328 °C

**Solubility in Water:** negligible

**Flash Point:** not applicable, combustible solid

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Autoignition Temperature: 380 °C (ASTM D2155)

Thermal Decomposition Temperature: 310 °C (DTA)

### 10. STABILITY AND REACTIVITY

**Stability:** Stable. Material can decompose at elevated temperatures. Use caution when storing or processing material above 142 °C.

**Incompatibility:** Material reacts with strong oxidizing agents.

**Hazardous Polymerization:** Will not occur.

### 11. TOXICOLOGICAL INFORMATION

*Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.*

Oral LD-50:(rat)	> 3,200 mg/kg(highest dose tested)
Inhalation LC-50: (rat)	6 h: > 0.33 mg/l
Dermal LD-50: ( guinea pig)	> 1,000 mg/kg (highest dose tested)
Skin Irritation (guinea pig)	slight
Skin Sensitization: (guinea pig)	slight

### 12. ECOLOGICAL INFORMATION

*Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.*

This material has not been tested for environmental effects.

### 13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

### 14. TRANSPORT INFORMATION

**Important Note:** *Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.*

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### DOT (USA)

Class not regulated

### Sea - IMDG (International Maritime Dangerous Goods)

Class not regulated

### Air - ICAO (International Civil Aviation Organization)

Class not regulated

## 15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: noncontrolled

SARA 313: none, unless listed below

Carcinogenicity Classification (components present at 0.1% or more): none, unless listed below

**TSCA (US Toxic Substances Control Act):** This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

**DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):** This product is listed on the DSL or otherwise complies with CEPA new substance notification requirements.

**EINECS (European Inventory of Existing Commercial Chemical Substances):** This product is listed on EINECS or otherwise complies with EINECS requirements. **EINECS Number:** 229-617-5

**AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme):** This product is listed on AICS or otherwise complies with NICNAS.

**MITI (Japanese Handbook of Existing and New Chemical Substances):** This product is listed in the Handbook or has been approved in Japan by new substance notification.

**ECL (Korean Toxic Substances Control Act):** This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-03415

**Inventory of Existing Chemical Substances in China:** All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

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### 16. OTHER INFORMATION

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*The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment.*

*Highlighted areas indicate new or changed information.*