Material Safety Data Sheet	**Hi-Yield® Mole and Gopher Bait**

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Name: Voluntary Purchasing Groups, Inc.	Box 460, Bonham, TX 75418
Emergency Telephone: (903) 583-5501 or (800) 424-9300 (Chemtrec)	
For Additional Information Contact: Product Manager or Chemtrec	Date Prepared: January 6, 2004
Common Name (Used on Label): Hi-Yield® Mole and Gopher Bait	Chemical Family: Mixture
Chemical Name: Mixture	Formula: Zinc Phosphide mixture
Trade Name & Synonyms: Hi-Yield® Mole and Gopher Bait EPA # 12455-30-7401	

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS NUMBER	% (TYPICAL)	TLV (UNITS)	PEL (UNITS)
Zinc Phosphide [1]	1314-84-7	2.0	Not established	Not established

[1]NOTE: This is a toxic chemical and is subject to the reporting requirements of section 313 of Title II of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

PEL: Permissible Exposure Limit established by the Occupational Safety and Health Administration.
TLV: Threshold Limit Value recommended by the American Conference of Governmental Industrial Hygienists.

SECTION 3 - PHYSICAL DATA

BOILING POINT (°F) 1100 degrees C	SPECIFIC GRAVITY (H_2O=1) Not determined	VAPOR PRESSURE (mm Hg) Not determined
PERCENT VOLATILE BY VOLUME (%) Not determined	VAPOR DENSITY (AIR=1) Not determined	EVAPORATION RATE (ethyl ether=1) Does not apply
SOLUBILITY IN WATER Insoluble	REACTIVITY IN WATER Will react with water to produce highly toxic phosphine	
APPEARANCE AND ODOR Gray crystalline powder; garlic odor		

SECTION 4 - FIRE AND EXPLOSION DATA

FLASH POINT (°F) Does not apply	FLAMMABLE LIMITS IN AIR (% by volume) Lower: Not determined Upper: Not determined
EXTINGUISHING MEDIA Dry chemical, soda ash, lime, or sand.	AUTO IGNITION TEMPERATURE Not determined
UNUSUAL FIRE AND EXPLOSION HAZARDS Will react slowly with water, and more rapidly with dilute acids to release highly toxic and spontaneously flammable phosphine.	
SPECIAL FIRE FIGHTING PROCEDURES	

Move container from fire area if possible. Do not use water or foam. Avoid breathing toxic vapors. Keep upwind. Utilize self-contained breathing apparatus with full-face piece operated in pressure demand or other positive pressure mode.

SECTION 5 - HEALTH INFORMATION

PRIMARY ROUTES OF EXPOSURE AND TARGET ORGANS
Inhalation, ingestion, eye or skin contact.

SIGNS AND SYMPTOMS OF EXPOSURE

(1) ACUTE OVEREXPOSURE
Zinc phosphide is a highly toxic hepatoxin. Poisoning affects the liver, kidneys, nervous system, and lungs. Inhalation or ingestion may result in symptoms of headache, dizziness, nausea, vomiting, fatigue, coughing, jaundice, paresthesias, ataxia, tremor, hypertension, dyspnea, pulmonary edema, cyanosis, shock, cardiac arrythmias, convulsions, and coma. Contact with moist skin or the eyes may result in burns.

(2) CHRONIC OVEREXPOSURE
Prolonged inhalation or ingestion may cause toothache, followed by swelling of the jaw, and later necrosis of the jaw, anemia, and bone fractures.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
Disorders of the kidneys, nervous system, and lungs.

CHEMICAL/COMPONENT LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN
None

NTP	IARC	OSHA
☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO

OTHER EXPOSURE LIMITS
ACGIH TLV for nuisance dusts=10mg/m3; OSHA PEL for nuisance dusts=15mg/m3

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician. INGESTION: Induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician. EYE OR SKIN CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. Flush skin with water. Wash clothing before reuse.

SECTION 6 - REACTIVITY DATA

STABILITY	CONDITIONS TO AVOID
☐ Unstable ☒ Stable	Keep dry and away from acids.

INCOMPATIBILITY (Materials to Avoid)
Water, acids, oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS
Reaction will produce phosphine. Thermal decomposition releases irritating oxides of phosphorous and toxic fumes of zinc oxide.

HAZARDOUS POLYMERIZATION	CONDITIONS TO AVOID
☐ May Occur ☒ Will Not occur	Does not apply

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS LEAKED OR SPILLED
Eliminate ignition sources. Do not touch spilled material. Do not get water on spilled material or inside container. Using a shovel place material into clean, dry, labeled container and seal. Neutralize spill residue with agricultural lime, slaked lime, crushed limestone, or sodium bicarbonate. Comply with all applicable governmental regulations concerning spill reporting, handling, and disposal of waste. Run-off to sewer may create fire or explosion hazard.

WASTE DISPOSAL METHOD
Dispose of in accordance with Federal, State, and local regulations.

SECTION 8 - PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION NIOSH/MSHA approved respiratory devices to protect against particulate matter.
VENTILATION General or local exhaust to maintain employee exposure below the TLV/PEL.
PROTECTIVE GLOVES Impervious material to prevent skin contact.
EYE PROTECTION Splash proof or dust resistant safety goggles to prevent eye contact with this substance. Contact lenses should not be worn.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT When necessary utilize impervious clothing and other equipment to prevent contact with this substance.

SECTION 9 - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING Store in a cool, dry, well ventilated area, away from acids and water. Contact with water produces toxic and flammable gas.
OTHER PRECAUTIONS Eye wash fountain and quick drench shower should be available.

SECTION 10 - OTHER INFORMATION

The information contained within was obtained from authoritative sources and is believed to be accurate for the manner in which the product is intended to be used. Other uses could result in ramifications, which are not included within this document.