1. PRODUCT AND COMPANY IDENTIFICATION

Names: **1) Montana X-treme Copper Killer**
2) Montana X-treme Bore Solvent

Trade Names and Synonyms: **for Copper Killer: 50 B.M.G Special Formula, Copper Remover**
for Bore Solvent: Gun Bore Cleaner

Distributed By: **WESTERN POWDERS, INC.**
P.O. Box 158
Miles City, Montana 59301
Telephone: (406) 234-0422
Toll Free: (800) 497-1007
Manufactured By: Refer to Supplier

TRANSPORTATION EMERGENCIES – CHEMTREC – 1-800-424-9300

Product Description/Uses - Consumer Products, Proprietary liquid mixtures of ammoniated hydrocarbon oils and specialized active cleaning solvents. Packaged only in 4oz and 16 oz glass bottles, these specialized gun cleaning product are intended solely for use by adult persons experienced in the cleaning and maintenance of firearms.

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: Copper Killer: clear, pale red liquid Bore Solvent: clear, pale yellow liquid
May be fatal if swallowed or inhaled. Mist and vapor may cause burns to every area of contact.
Vapor highly irritating. May cause severe burns of respiratory and digestive tracts, eyes and skin.
Ingestion hazard. If material is swallowed, call physician immediately. Do not induce vomiting. If liquid material enters lungs, it can cause severe damage. Inhalation or ingestion may affect the central nervous system, causing dizziness, headache or nausea. Contact of liquid with eyes may result in severe damage.
Warning! Combustible liquid and vapor.
Contains ammonia. Be aware that ammonia vapor can be evolved from ammonia containing solutions.
Do not heat these products to temperatures above room temperature.
Spills may create a slipping hazard.

OSHA REGULATORY STATUS - These products may be considered to be hazardous chemicals under OSHA Hazard Communication Standard 29 CFR 1910.1200
Applicable OSHA Classifications – Warning! Toxic Combustible Corrosive Carcinogenic Irritant
POISON! DANGER! CORROSIVE!

POTENTIAL HEALTH EFFECTS –

Inhalation - Breathing of vapor or mist is possible. Breathing these materials may be harmful or fatal. Symptoms may include severe irritation and burns to the nose, throat, and respiratory tract. Symptoms usually occur at air concentrations higher than the recommended exposure limits.

Eyes - Can cause permanent eye injury. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure the cornea and cause blindness. Additional symptoms of eye exposure may include: blurred vision

Skin - Can cause permanent skin damage. Symptoms may include redness, burning, and swelling of skin, burns, and other skin damage. Prolonged or repeated contact may dry the skin. Passage of these materials into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

Section 2 - continued

Ingestion - Toxic! Swallowing these materials may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation (nausea, vomiting, diarrhea), abdominal pain, and vomiting of blood. Swallowing these materials may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result of severe tissue injury. These materials can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Symptoms of Exposure - Signs and symptoms of exposure to these materials through breathing, swallowing, and/or passage of the material through the skin may include:, sweating, fever, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), lung irritation, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), pain in the abdomen, frequent or painful urination, confusion, blood abnormalities (breakage of red blood cells), kidney damage, lung damage, respiratory failure.

Carcinogenic Potential – A minor component of these mixtures, Naphthalene, is listed as carcinogenic by IARC (International Agency for Research on Cancer) and the National Toxicology Program (NTP) 11th Report..

Routes of Exposure - Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

POTENTIAL ENVIRONMENTAL EFFECTS – Components of these mixtures are toxic or harmful to aquatic organisms.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	wt. %
Mineral Oil	8042-47-5	10 - 15
Glycol Ether (Generic Name)		10 - 15
Proprietary Ammonia Oil Mix containing Aromatic Petroleum Distillate and NH_4OH**		60 -70
Oleic Acid	112-80-1	<15
Naphthalene	91-20-3	2 - 4
Pseudocumene	95-63-6	1 - 2

**** Ammonia content of mixture: Copper Killer - <10 wt. %; Bore Solvent - <4 wt. %**

4. FIRST AID MEASURES

Eyes - If material gets into the eyes, check for contact lenses and, if present and readily possible, carefully remove. Immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing eyes as recommended above. Seek immediate medical attention.

Skin – Wipe off excess material. Wash exposed skin with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists. Thoroughly clean contaminated clothing before reuse.
If material is injected under the skin, seek medical attention immediately..

Ingestion - Seek medical attention immediately. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Do not induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. Do not leave victim unattended.

Inhalation - If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Section 4 – continued.

Notes to Physician- (drawn from component MSDS documents)

1. Ingestion: These materials are an aspiration and chemical pneumonitis hazard. Potential danger from aspiration must be weighed against possible oral and internal toxicity (from ammonia, glycol ether, petroleum distillates components) content of mixture when deciding whether to induce vomiting. Inhalation or ingestion of high levels of these materials (or a component) may cause a hemolytic reaction. Complications of acute intravascular hemolysis include anemia, leukocytosis, fever, hemoglobinuria, jaundice, renal insufficiency, and sometimes disturbances in liver function.

2. Pre-existing disorders of the following organs (or organ systems) may be aggravated by exposure to these materials: lung (for example, asthma-like conditions), liver and kidney.

3. Skin Injection: In the event of injection in underlying tissue, immediate treatment should include extensive incision, debridement and saline irrigation. Inadequate treatment can result in ischemia and gangrene. Early symptoms may be minimal.

5. FIRE FIGHTING MEASURES

NFPA RATING Combustible Material, estimated (based on components ratings) mixture NFPA rating 3 -2 -0
FLASH POINT: Copper Killer - >200° F Bore Solvent - >200° F Method: P-M Closed Cup
EXPLOSIVE LIMITS: Not determined for mixture. Glycol ether has flammable limits of 1.1 - 10.6%
AUTOIGNITION TEMPERATURE: Not determined for mixture.
EXTINGUISHING MEDIA: Foam, dry chemical, Carbon dioxide
PERSONAL PROTECTION FOR FIREFIGHTING
Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).
UNUSUAL FIRE AND EXPLOSION HAZARDS:. As product is heated, hazardous ammonia vapors will be emitted, followed by likely flammable hydrocarbon and glycol ether vapors. The latter are heavier than air. Glycol ether component can form explosive peroxides under oxidation conditions.
HAZARDOUS PRODUCTS OF COMBUSTION. Combustion products vary depending on fire conditions and other combustibles present in the fire. Products may be mixture components, carbon dioxide, carbon monoxide, ammonia, hydrogen, nitrogen oxides and various hydrocarbons.

6. ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES:
Because of small package size and typical limited quantity of material expected to be in places of use, spills will likely be small in size.

Small Spill - Neutralize and absorb liquid on vermiculite, floor absorbent or other absorbent material.
Large Spill - Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading-. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Transfer contaminated absorbent, soil and other wasted materials to tight-fitting containers for disposal under applicable local, state and federal hazardous waste disposal regulations..

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THESE MATERIALS. THE USER HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

7. HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS:

- Containers of these materials may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.
- Keep container tightly closed when not in use. Under oxidation conditions, peroxides may be formed in glycol ether component of these mixtures. If they become concentrated, these peroxides may present an explosion hazard. Do not use pressure or heating to empty container. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing.
- Keep away from heat, sparks, and flames. Store in a cool, dry, well ventilated place away from incompatible materials. Vent container frequently and more often in warm weather to relieve pressure. Avoid storing product in direct sunlight for extended periods of time. Store at temperature of 70^{o}F or lower if possible.
- **KEEP THESE PRODUCTS OUT OF THE REACH OF CHILDREN AT ALL TIMES**

ENGINEERING CONTROLS:

Adequate ventilation should be provided in work areas and in storage spaces to keep component vapor concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with applicable air pollution control regulations.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

ESTABLISHED EXPOSURE LIMITS

COMPONENT	OSHA (PEL)	ACGIH (TLV)	NIOSH IDHL
White Mineral Oil	5mg/m^3 – oil mist - TWA	5mg/m^3 – oil mist – TWA 10 mg/m^3 oil mist - STEL	2500 mg/m^{3-} Mineral oil mist
Glycol ether	50 ppm – TWA (skin) 25 ppm – VPEL – TWA (skin)	20 ppm - TWA	700 ppm
Aromatic Petroleum .Distillates	5mg/m^3 – oil mist – TWA	5mg/m^3 – oil mist – TWA	1100 ppm – pet. dist.
Ammonium Hydroxide	50 ppm – ammonia – TWA 35ppm – ammonia – STEL (VPEL)	25ppm – ammonia – TWA 35ppm – ammonia - STEL	300 ppm – ammonia
Oleic Acid	None established		
Naphthalene	10 ppm	10 ppm TWA 15 ppm - STEL	250 ppm
Pseudocumene	25 ppm - TWA	25 ppm - TWA	

PERSONAL PROTECTIVE EQUIPMENT

Safety glasses or goggles with side shields. To prevent repeated or prolonged skin contact, wear impervious clothing and boots. Provide respiratory protection if Section 8 Exposure Limits above are exceeded.

Eye Protection- Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses.

Hand Protection - Wear resistant gloves such as: natural rubber, neoprene, nitrile rubber.

Section 8 - continued

Respiratory Protection - If workplace exposure limit(s) of products or any component are exceeded (see exposure guidelines above), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

ENGINEERING CONTROLS - Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	**Copper Killer** – clear, red liquid; **Bore Solvent** - clear, pale yellow liquid
Odor	Pungent, ammonia odor
Odor threshold	Not available.
Physical state	liquid
pH 25 Deg. C	Not determined for mixture. Ammonia content makes the product highly basic.
Boiling Point	Not determined for mixture. Ammonia content boils at 80 – 85^{o}F. Other components have BP_n >300^{o}F
Freezing Point	<32^{o}F
Initial boiling point	Not available.
Boiling Range	Not available
Flash Point	>200F, P-M CC
Evaporation rate	Not available
Flammability/Explosive Limits	Not determined for mixture. Glycol ether component has Explosive limits of 1.1%(V) – 10.6%(V)
Vapor Pressure	Ammonia content 755 mm Hg @80 – 85^{o}F, all other components have vapor pressure of <5mm Hg @ 68^{o}F
Vapor Density	NH_3 vapor density 0.6 relative to air (1.0). Other components have vapor densities greater than air
Density – g/cc - @65^{o}F	**Copper Killer** – 0.89, Bore **Solvent** – 0.88
Bulk Density #/gal	**Copper Killer** – 7.5, **Bore Solvent** – 7.4
Solubility in Water	Low for oil content; ammonia content soluble, glycol ether miscible with water
Partition coefficient Oil/water distribution	Not available
Autoignition/Decomposition Temperature	Not determined for mixture.
Volatiles, Percent By Volume	~ 90%

10. STABILITY AND REACTIVITY

INSTABILITY: Stable
INCOMPATIBILITY: Heat, salts of strong bases, strong acids, strong alkalis, strong oxidizing agents, aluminum,..

Section 10 - continued

DECOMPOSITION PRODUCTS: Hazardous byproducts of burning or thermal decomposition may include mixture components, carbon dioxide, carbon monoxide, ammonia, hydrogen, nitrogen oxides.and various hydrocarbons
HAZARDOUS POLYMERIZATION: Will not occur.
OTHER CONDITIONS TO AVOID: Direct sunlight, open containers, temperatures of use or storage above moderate (circa 70°F) room temperature.

11. TOXICOLOGICAL INFORMATION

ROUTES OF ABSORPTION: Inhalation Skin Ingestion Eye Contact

TOXICITY DATA: Calculated for Mixtures from following component toxicological data.

Component	LD_{50} – Acute Oral	LD_{50} – Acute Dermal	LC_{50} – Acute Inhalation
WhiteMineral Oil	: >5000 mg/kg [Rat].	: >2000 mg/kg [Rabbit].	
Aromatic Petroleum Distillates	3000mg/kg [Rat]	3000 mg/kg – (Rabbit)	3800mg/m^3 – 4hr - (Rat)
Glycol ether	1746 mg/kg BWT	680 mg/kg BWT (Rabbit)	450ppm (Rat-female) -4 hrs - 486 mg/kg (male) - 4 hrs (Rat)
Naphthalene	490 mg/kg – (Rat)	20,000mg/kg – (Rabbit)	
Pseudocumene	6g/kg – (Rat)		18g/m^3-4 hr
Ammonium Hydroxide	350 mg/kg - (Rat)	Eye, rabbit – standard Draize 250µg, severe	2000ppm – 4hr
Oleic acid	25000 mg/kg [Rat].		
Mixture - calculated Per 49CFR173.133	**Copper Killer** – 1861 mg/kg **Bore Solvent** – 2288 mg/kg	Not determined,	**Copper Killer** – 4856 ml/cu. m. **Bore Solvent** – 4157 ml/cu m.

Note – LC50 inhalation calculation for the mixture used wt. % rather than mol fraction – since all mol. weights not available.

Carcinogenicity: These product mixtures have not been tested for carcinogenicity. Mixture minor component naphthalene is listed as carcinogenic by IARC and by NTP (11th Report). Glycol ether has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY - Components of these products known to be toxic or harmful to aquatic organisms:
glycol ether, **ammonia, mineral oil (coating action), petroleum distillates**
GENERAL - Due care should be taken to avoid accidental releases of these products to aquatic or terrestrial systems.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
Review state, local, and federal regulations for proper disposal mechanisms. Used material is a regulated waste. Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full.

14. TRANSPORT INFORMATION

MONTANA X-TREME COPPER KILLER: This product, as supplied, is not regulated as a hazardous material for transportation by any mode, under U.S. DOT, IATA and IMDG codes

MONTANA X-TREME BORE SOLVENT: This product, as supplied, is not regulated as a hazardous material for transportation by any mode, under U.S. DOT, IATA and IMDG codes

Transportation Classifications above supplied by ICC The Compliance Center, Inc. , Niagara Falls NY

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) : all components of these products are listed in the TSCA Inventory.

SARA Title III, Sections 311/312 : Hazard Categories per 40 CFR 370.21 :
Acute (health) - Yes
Chronic (health) – Yes
Fire - Yes
Reactive (physical) - No
Sudden Release (physical) – No

CERCLA Sections 102a/103 – Hazardous Substances – RQ: Ammonium Hydroxide**,** 100#
Naphthalene, 100#

SARA Title III, Section 313 covered components: glycol ether, ammonia, naphthalene, pseudocumene

California Proposition 65 - These products contains a chemical(s) known in the State of California to cause cancer, birth defects, or other reproductive harm.

16. OTHER INFORMATION

Revised: **3/18/2009** by Western Powders, Inc.. Compiled from component MSDS documents dated 10/18/2007, 1/24/2008, 1/24/2008, 1/24/2008, 1/25/2008; and from NIOSH International Safety Cards. Transportation Classification by ICC The Compliance Center, Inc.

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