

# SAFETY DATA SHEET

## 1. IDENTIFICATION

Product Name: **ELIMINATOR 212 – Exotics Plus**

Manufacturer: HE&M Inc.  
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 Mid America Industrial Park  
 Pryor, OK 74361

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Product Description ELIMINATOR 212 – Exotics Plus is a premium semi-synthetic, water miscible, metalworking fluid concentrate. See product data sheet for a detailed description of recommended use.

## 2. HAZARDS IDENTIFICATION

GHS Classification This material is classified in accordance with OSHA Hazard Communication Standard (29 CFR 1910.1200).  
 Classification SKIN CORROSION / IRRITATION – Category 2  
 EYE DAMAGE / IRRITATION – Category 2A

GHS Label  
 Hazard pictogram



Signal word Warning  
 Hazard Statement Causes skin irritation  
 Causes serious eye damage

Precautionary statements  
 Prevention Wash hands and any potentially exposed skin thoroughly after handling. Wear protective gloves. Wear proper eye or face protection.  
 Response IF ON SKIN: Wash with plenty of water and mild soap.  
 IF SKIN IRRITATION OCCURS: Get medical attention.  
 Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 IF EYE IRRITATION PERSISTS: Get medical attention.

Storage Not applicable  
 Disposal Not applicable  
 Hazards Not Otherwise Classified (HNOC) May be defatting to the skin.

# HEM<sup>®</sup> ELIMINATOR II METALWORKING FLUIDS

HMIS	Health 1	Flammability 1	Physical Hazard 0	PPE B
NFPA	Health 1	Flammability 1	Chemical Reactivity 0	Special Hazards None Known

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance / Mixture:** ELIMINATOR 212 – Exotics Plus is a semi-synthetic mixture, composed of; severely hydrotreated mineral oil, surfactants, lubricity and corrosion additives.

Components/Ingredients	CAS No.	% Range*
Heavy Hydrotreated Naphthenic Distillates (petroleum)	64742-52-5	<30
Polymer	Proprietary*	<30
Tall oil rosin and fatty acids	8002-26-4	<10
Oleylamine, ethoxylated	26635-93-8	<10
Polyol ester	Proprietary*	<10
Orthoboric acid, compound with 2-aminoethanol	26038-87-9	<5
2-methyl-2,4-pentanediol	107-41-5	<5
Tris(2-hydroxyethyl)amine	102-71-6	<2

\*Specific percentages of composition are being withheld as a trade secret.

\*Proprietary CAS numbers are being withheld as a trade secret.

Additional components, of which may or may not be present, in this mixture are not classified as hazardous to health or the environment and within the current knowledge of the manufacturer or supplier and current regulations, are required to be reported in this section.

Occupational exposure limits, if applicable and available, are listed in Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION.

### 4. FIRST AID MEASURES

Eye	Irrigate with flowing water immediately and continuously for a minimum of 15 minutes. If wearing contact lenses remove first, if capable. Seek medical assistance immediately if irritation occurs.
Skin	Thoroughly rinse contact areas with ample amounts of water and soap. If clothing or shoes are contaminated; remove immediately and wash before using again. Seek medical assistance immediately if irritation occurs.
Ingestion	DO NOT induce vomiting, unless directed to do so by appropriate medical personnel. Never give anything by mouth to an unconscious person. If a person vomits when lying on their back, immediately place them in the recovery position to prevent aspiration of vomit. If person is conscious, rinse out mouth with water. Seek medical attention immediately.
Inhalation	If inhaled, move to fresh air. The exposed person may need to be kept under medical attention to monitor for delayed symptoms. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be required. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Seek medical attention immediately. In case of fire and combustion products are inhaled, keep exposed personnel under medical surveillance as symptoms may be delayed.

Notes to Physician                      In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Treatment should in general be symptomatic and directed to relieving any effects.

Most important symptoms or effects, acute and delayed  
 For more detailed information on health effects and symptoms see Section 11 – TOXICOLOGICAL INFORMATION

Description of necessary first aid measures or specific treatments  
 Treatment should in general be symptomatic and directed to relieving any effects.

## 5. FIRE FIGHTING MEASURES

Extinguishing Media	Alcohol-resistant foam, dry chemical, and carbon dioxide are appropriate extinguishing media.
Unsuitable Extinguishing Media	Avoid using water jet.
Specific Hazards from Chemical	In fire or under extreme heat, closed containers may pressurize causing the container to burst.
Hazardous Combustion Products	Combustion products may include the following: oxides of carbon (CO, CO <sub>2</sub> ), oxides of nitrogen, and other undetermined byproducts of combustion.
Special Fire Fighting Instructions	Keep people away and evacuate the area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self – contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.
Unusual Fire or Explosion Hazards	None known.
Flash Point (COC)	>100°C
Auto Ignition Temperature	Not determined
Explosion Limits	LEL: Not determined                      UEL: Not determined

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	Spilled material may make surfaces slippery. Wear suitable protective gear, such as: chemically protective gloves, eye protection, chemically protective boots, and chemically protective clothing.
Environmental Precautions	Dike spilled material to prevent spreading and any releases of this material to the environment. DO NOT allow material to enter waterways or water systems. In the case of a spill or accidental release, notify proper authorities in accordance to regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway. The National Response Center can be contacted at (800)424-8802.
Methods and Materials for Containment and Cleaning Up	Dike spilled material and soak up with inert absorbent material, such as: mops, sand, oil-dri, or fiber media. Dispose of material in accordance with all Federal, State and Local regulations. Do not touch or walk through spill material. Avoid breathing vapor or mist. Provide adequate ventilation.

## 7. HANDLING AND STORAGE

Handling	Ensure adequate ventilation. Keep out of reach of children or individuals not educated and familiar with the potential hazards of this material. Avoid contact with eyes. Do not ingest. Avoid prolonged or repeated contact with skin. Do not mix or contaminate with other chemicals. Do not eat, drink or smoke while using this product. Avoid high heat, flames, ignition sources, or UV light. Wear appropriate PPE, avoid breathing vapor or mist. Empty containers retain product residue and can be hazardous. Keep in the original container or an alternative made from a compatible material; keep closed when not in use. Do not reuse original container.
Storage	Store in a closed, properly labeled container, in accordance with all regulations. Store in the original container, away from direct sunlight, and incompatible materials. Store at temperatures below 100°F. Keep container tightly sealed when not in use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Showers, eyewash stations, and ventilation systems are appropriate.
Environmental Controls	Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.
Exposure Limit Values	<p>Metalworking Fluids – Particulates Not Otherwise Classified</p> <p><b>OSHA – TWA</b>  15 mg/m<sup>3</sup> (8 hour)</p> <p><b>NIOSH – TWA REL (Recommended Exposure Limit)</b>  0.5 mg/m<sup>3</sup> total particulate (10 hour / day; 40 hour work week)</p> <p>Boric acid – Inhalable Fraction</p> <p><b>ACGIH TLV</b>  6 mg/m<sup>3</sup> STEL (15 minutes); 2 mg/m<sup>3</sup> TWA (8 hours)</p> <p>Heavy Hydrotreated Naphthenic Distillates (petroleum) – Oil Mist</p> <p><b>OSHA – PEL</b>  5 mg/m<sup>3</sup> (8 hours) TWA</p> <p><b>ACGIH – TLV</b>  5 mg/m<sup>3</sup> (8 hours) TWA</p> <p>Tris(2-hydroxyethyl)amine</p> <p><b>ACGIH – TLV</b>  5 mg/m<sup>3</sup> (8 hours) TWA</p> <p>2-methyl-2,4-pentanediol</p> <p><b>ACGIH – TLV</b>  121 mg/m<sup>3</sup> Ceiling</p> <p><b>NIOSH – REL</b>  25 ppm Ceiling</p>

Personal Protective Equipment	Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.
Eye / Face Protection	If contact from spray or splashing, safety glasses with side-shields are recommended.
Skin Protection	Wear suitable chemical resistant gloves while handling concentrate and water extended product. Use of chemically resistant gloves is recommended when in contact for prolonged periods or by individuals whom are dermally sensitive. When the risk of skin exposure is high, chemical resistant aprons and/or impervious chemical suits and boots may be required. PPE for the body should be selected based on the potential for contact with the product and the potential risks involved if contact may occur.
Respiratory Protection	The choice of respiratory protections is dependent upon the environment the product is being used and the environment of the product is used in. Safety procedures should be developed for all intended conditions of handling and use of this product.
Special Instructions for Protection and Hygiene	Provide readily accessible eye wash stations and safety showers. Wash hands at the end of each work shift and before eating, smoking or using the toilet.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Amber, Clear, Liquid
Odor	Mild Odor
Odor Threshold	Not Determined
pH	9.0 – 9.3 @ 5.0% in water
Melting Point / Freezing Point	<32°F (0°C)
Initial Boiling Point and Boiling Range	Decomposition expected before boiling point
Flash Point	>100°C (Open Cup)
Evaporation Rate (Butyl Acetate @ 25°C = 1)	<1
Flammability (solid, gas)	Not Applicable
Upper Explosive Limit / Lower Explosive Limit	Not Applicable
Vapor Pressure (Water @ 20°C = 17.5 mmHg)	Not Determined
Vapor Density	Not Determined
Specific Gravity (20°C)	0.95 – 1.10
Solubility	Miscible in Water
Partition Coefficient (n-octanol / water)	Not Determined
Auto-ignition Temperature	Not Determined
Decomposition Temperature	Not Determined
Viscosity	60 - 80 cSt @ 20°C

## 10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended handling and storage conditions.
Conditions to Avoid	Avoid high heat, flames, and ignition sources, UV light, and incompatible materials. Flammable vapors may form from atomizing or holding material at temperatures above flash point.
Incompatible Materials	Oxidizers, acid, alkali, and water.
Hazardous decomposition materials	Carbon dioxide, carbon monoxide, oxides of nitrogen, and other unknown incomplete products of combustion.
Reactivity	Not expected.

## 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Skin Contact, Eye Contact
Potential Acute Health Effects	
Eye Contact	May cause serious eye irritation.
Skin Contact	May cause skin irritation.
Inhalation	Inhalation of products of decomposition may cause health hazard. Serious effects may be delayed after exposure.
Ingestion	May cause gastrointestinal irritation.
Symptoms related to; physical, chemical and toxicological characteristics	
Eye Contact	Irritation, dryness, stinging, tearing.
Skin Contact	Irritation, redness, defatting, drying, and cracking. Sensitive individuals or persons with open wounds may experience higher degrees of irritation.
Inhalation	Not determined
Ingestion	Not determined
Delayed / Chronic Health Effects	
Eye Contact	Not determined
Skin Contact	Not determined
Inhalation	Not determined
Ingestion	Not determined
Skin Corrosion / Irritation	Category 2
Eye Damage / Irritation	Category 2A
Germ Cell Mutagenicity	Mixture not determined
Teratogenicity	Mixture not determined
Developmental	Mixture not determined
Fertility	Mixture not determined
Carcinogenicity	Mixture not determined
Reproductive Toxicity	Mixture not determined
Aspiration Toxicity	Mixture not determined
Specific Target Organ Toxicity – Single Exposure	Mixture not determined
Specific Target Organ Toxicity – Repeated Exposure	Mixture not determined
Additional information	This mixture contains alkanolamines. Nitrites or other nitrosation compounds may react with components in this material to form potentially carcinogenic nitrosamines.
The hazard classifications of this substance / mixture were made congruent to the Occupational Safety and Health Standards, established in OSHA Regulation Standards 29 CFR 1910.1200.	

## 12. ECOLOGICAL INFORMATION

Aquatic Toxicity	Do not release into waterways, water systems, or land. Not determined for classification under 1910.1200.
Terrestrial Toxicity	Not determined.
Persistence and Degradability	Expected to be biodegradable.
Bioaccumulative Potential	Not expected to accumulate in organisms.
Mobility in Soil	Not determined.
Other Adverse Ecological Effects	Complete ecological effects of this mixture are not known. Do not release into waterways, water systems, or environment.

### 13. DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with all current applicable federal, state, and local laws and regulations, and material characteristics at time of disposal. Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty containers should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste, nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, toxicity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

### 14. TRANSPORT INFORMATION

UN Number	Not Applicable
UN Proper Shipping Name	Not Applicable
Transport Hazard Class	Not Applicable
Packing Group	Not Applicable
Environmental Hazards	Marine Pollutant – Not determined
Transportation in Bulk (Annex II of MARPOL 73/78 and IBC Code)	
Special Precautions	Spilled material may be a slip hazard.
U.S. DOT / Canadian TDG	Not Regulated for shipping
IMO / IDMG	Not determined
ICAO / IATA	Not determined
ADR / RID	Not determined
NMFC Number	
Freight Class	55

### 15. REGULATORY INFORMATION

**OSHA HAZARD COMMUNICATION STANDARD:** The hazard classifications of this substance / mixture were made congruent to the Occupational Safety and Health Standards, established in OSHA Regulation Standards 29 CFR 1910.1200.

**Complies with the following national/regional chemical inventory requirements:** TSCA, DSL

**EPCRA SECTION 302:** This material contains no extremely hazardous substances.

**EPA SARA Title III Section 311/312 (40 CFR 370) Hazard Classification:** Immediate acute health hazard.

**EPA SARA Title III Section 313 (40 CFR 372):** Not Applicable

**CLEAN AIR ACT (CAA):** Not Applicable

**CLEAN WATER ACT (CWA):** Not Applicable

**California Proposition 65:** This product may contain; 1,4-dioxane, propylene oxide, ethylene oxide, chemicals known to the State of California to cause cancer, birth defects or other harm.

## 16. ADDITIONAL INFORMATION

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Revision Date: July 12, 2017  
Revision #: HEM-3

This SDS prepared for this substance / mixture was made congruent to the Occupational Safety and Health Standards, established in OSHA Regulation Standards 29 CFR 1910.1200.

**Disclaimer:** The information presented herein has been compiled from sources considered to be dependable and is accurate as of the date issued. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use are beyond our control, we make no warranty regarding the accuracy of such data or its suitability for any use or for any consequence of its use. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. Safe handling and use remains the responsibility of the purchaser and the purchaser has the sole responsibility to determine the suitability of the materials for any use and the manner of user contemplated. We assume no responsibility for injury to the recipient or to third persons or for any damage to any property and the recipient assumes all such risks.