SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	**ELIMINATOR 112 - Biocide**
Other means of identification:	None
Supplier:	HE&M Inc. PO Box 1148 4065 South Main & Webb Mid America Industrial Park Pryor, OK 74361
Telephone:	(888) 729-7787 (918) 825-4821
Fax:	(918) 825-4824
In case of Emergency:	INFOTRAC US and Canada (800) 535-5053 Outside the US or Canada +01-352-323-3500
Recommended Use:	Metalworking Fluid Additive. See product data sheet for full description on use.

2. HAZARDS IDENTIFICATION

GHS Classification	This material is classified in accordance with OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification	ACUTE TOXICITY (oral) – Category 4 EYE IRRITATION – Category 2A SKIN SENSITIZATION – Category 1
GHS Label Hazard pictogram	
Signal word	Warning
Hazard Statement	H303 – Harmful if swallowed. H319 – Causes serious eye irritation. H317 – May cause an allergic skin reaction.
Precautionary statements Prevention	P262 – Do not get in eyes, on skin, or on clothing. P264 – Wash hands and any parts of exposure thoroughly after handling. P270 – Do not eat, drink or smoke when using this product. P273 – Avoid release to the environment. P280 – Wear protective gloves, protective clothing, face and eye protection.
Response	P302 + P352 + P362-2 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. P332 + P313 - If skin irritation occurs: Get medical attention.

	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
Storage	Not applicable
Disposal	P501 – Dispose of contents and container in accordance with all local, regional, national and international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture:

Components/Ingredients	CAS No.	% Range*
2,2',2'' (hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	4719-04-4	70-80%
2-aminoethanol	141-43-5	1 – 3

*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	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue rinsing for at least 10 minutes. Get medical attention.
Skin	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in position comfortable for breathing. 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	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangers to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severer. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation by decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
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

Causes serious eye irritation
May cause an allergic skin reaction
Harmful if swallowed

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	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable Extinguishing Media	None known.
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_2), 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	Excessive heat >147°C (>297°F) will result in decomposition to formaldehyde.

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 spilt 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 -5° to 30°C (23 to 86°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	**Metalworking Fluids – Particulates Not Otherwise Classified** OSHA – TWA 15 mg/m^3 (8 hour) NIOSH – TWA REL (Recommended Exposure Limit) 0.5 mg/m^3 total particulate (10 hour / day; 40 hour work week)
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	Clear, amber to brown liquid
Odor	Mild Characteristic Odor
Odor Threshold	Not Determined
pH	10.3 to 11.3 @ 5.0% w/w in water
Melting Point / Freezing Point	<32°F (0°C)
Initial Boiling Point and Boiling Range	110.5°C

Flash Point	Not applicable
Evaporation Rate (Butyl Acetate @ 25°C = 1)	<1
Flammability (solid, gas)	Excessive heat >147°C (>297°F) will result in decomposition to formaldehyde
Upper Explosive Limit / Lower Explosive Limit	Not Applicable
Vapor Pressure (Water @ 20°C = 17.5 mmHg)	1.3 to 2.4 kPa (10 to 18 mm Hg) [room temperature]
Vapor Density	>1 [Air=1]
Specific Gravity (20°C)	1.145 to 1.16
Solubility	Soluble
Partition Coefficient (n-octanol / water)	Not Determined
Auto-ignition Temperature	Not Determined
Decomposition Temperature	Not Determined
Viscosity	60 to 100 cSt @ 40°C

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended handling and storage conditions.
Conditions to Avoid	No specific data.
Incompatible Materials	No specific data.
Hazardous decomposition materials	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Reactivity	Not expected.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin Contact, Eye Contact

Potential Acute Health Effects

Eye Contact	Causes serious eye irritation.
Skin Contact	Causes skin irritation.
Inhalation	Not determined. Inhalation of products of decomposition may cause health hazard. Serious effects may be delayed after exposure. Repeated or prolonged exposure to mist may produce respiratory tract irritation.
Ingestion	Harmful if swallowed.

Component	Result	Species	Dose	Exposure
Substance	LD50 Dermal	Rat	>2,000 mg/kg	
	LD50 Oral	Rat	1009 - 3950 mg/kg	

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, may cause respiratory irritation.
Ingestion	Not determined

Component	Result	Species	Dose	Exposure
Substance	Eyes – Cornea opacity	Rabbit	59	21 days
	Skin – Mild irritant	Rabbit	-	-

Skin Corrosion / Irritation	Category 2
Eye Damage / Irritation	Category 2A
Skin Sensitizer	Category 1

Respiratory Sensitizer	Not determined
Germ Cell Mutagenicity	Not determined
Teratogenicity	Not determined
Developmental	Not determined
Fertility	Not determined
Carcinogenicity	Not determined
Reproductive Toxicity	Not determined
Aspiration Toxicity	Not determined
Specific Target Organ Toxicity – Single Exposure	Substance – Category 3, respiratory tract irritation
Specific Target Organ Toxicity – Repeated Exposure	Not determined
Additional information	None known.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: Do not release into waterways, water systems, or land. Material has low water solubility. May cause adverse physical affects to aquatic organisms. Not expected to be toxic to aquatic organisms. Not determined for classification under 1910.1200.

Component	Result	Species	Exposure
Substance	LC50 10 to 100 mg/l	Daphnia	48 hours
	LC50 10 to 100 mg/l	Fish	96 hours

Terrestrial Toxicity	Not determined.
Persistence and Degradability	>90% - Readily – 21 days.
Bioaccumulative Potential	-1.3 LogPow.
Mobility in Soil	Not expected to be mobile in soil.
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 Regulated for shipping
ICAO / IATA	Not Regulated for shipping
ADR / RID	Not Regulated for shipping

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, EINECS
TSCA 4(a) final test rules; TSCA 12(b) one-time export.

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

State Regulations:

Product: Listed or not	Massachusetts	New York	New Jersey	Pennsylvania
Ethanolamine	Yes	No	Yes	No
2-aminoethanol	No	No	Yes	Yes

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects or other harm.

16. ADDITIONAL INFORMATION

Revision Date: July 25, 2019
Revision #: 3.0
Prepared or Revised By: HE&M Inc.

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.

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