SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	**SEMITECH GS**
Manufacturer:	Eberle Fluid Technology 8651 Highway N, Ste. 174 Lake St. Louis, MO 63367
Telephone:	1 (877) 632-3753
In case of Emergency:	DOMESTIC NORTH AMERICA 800-424-9300 INTERNATIONAL 703-527-3887 (collect calls accepted)
Product Description	Industrial Metalworking Fluid. 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 ACUTE TOXICITY – Category 4
GHS Label Hazard pictogram	
Signal word	Warning
Hazard Statement	H303 – Harmful if swallowed. H315 – Causes skin irritation. H319 – Causes serious eye irritation.
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 + 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.
Hazards Not Otherwise Classified (HNOC)	May be defatting to the skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: SEMITECH GS is a mixture.

Components/Ingredients	CAS No.	% Range*
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	5 – 15
2-amino-2-methylpropanol	124-68-5	1 – 5
2-aminoethanol	141-43-5	1 – 5
2,2,2-nitrilotriethanol	102-71-6	1 – 5

*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 able. Seek medical assistance immediately if irritation occurs.
Skin	Thoroughly rinse contact areas with water and soap. If clothing or shoes are contaminated; remove immediately and wash before using again. Seek medical attention 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 person is conscious, rinse out mouth with water. Seek medical attention immediately.
Inhalation	Contact a medical professional immediately. Effects of inhalation are not established. It is a good practice to remove victim to fresh air and from further exposure when inhalation occurs. If patient experiences irritation to the respiratory system, dizziness, nausea, or unconsciousness, seek medical attention immediately. If breathing has stopped, assist ventilation with a mechanical device or mouth-to-mouth resuscitation. If irritation persists, consult medical personnel.
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	Not known.
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	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).
Unusual Fire or Explosion Hazards	Contents in closed container, in a fire or if held at a high temperature for extended periods of time, may cause a pressure increase and cause the container to burst.

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.
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 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	
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)
Mineral Oil (component)	OSHA – PEL
	5 mg/m^3 TWA (8 hours)
	ACGIH – TLV
	5 mg/m^3 – TWA (8 hours) Inhalable fraction
	NIOSH – REL
	5 mg/m^3 – TWA (10 hours) Mist
	10 mg/m^3 – STEL (15 minutes) Mist
2-aminoethanol (component)	OSHA – PEL
	6 mg/m^3 TWA (8 hours)
	ACGIH – TLV
	1 mg/m^3 TWA (8 hours) – Inhalable fraction and vapor
	6 ppm STEL (15 minutes)
	NIOSH – REL
	15 mg/m^3 TWA (10 hours)
	8 mg/m^3 STEL (15 minutes)
2,2,2-nitrilotriethanol (component)	ACGIH – TLV
	5 mg/m^3 – TWA (8 hours)
Personal Protective Equipment	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	Golden to Amber Colored, Liquid
Odor	Mild Odor
Odor Threshold	Not Determined

pH	9.30 – 9.60 @ 5.0% w/w in water
Melting Point / Freezing Point	<32°F (0°C)
Initial Boiling Point and Boiling Range	Not Determined
Flash Point	>200°C
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)	0.99 – 1.03
Solubility	Miscible
Partition Coefficient (n-octanol / water)	Not Determined
Auto-ignition Temperature	Not Determined
Decomposition Temperature	Not Determined
Viscosity	Not Determined

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	Strong Oxidizers, acid, alkali.
Hazardous decomposition materials	Carbon dioxide, carbon monoxide, oxides of nitrogen and other unknown incomplete products of combustion.
Reactivity	Not expected.
Other Information	This mixture contains alkanolamines. Nitrites or other nitrosation compounds may react with components in this material to form potentially carcinogenic nitrosamines.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin Contact, Eye Contact

Potential Acute Health Effects

Eye Contact	Causes serious eye irritation. Category 2A
Skin Contact	Causes skin irritation. Category 2
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	May be harmful if swallowed.

Component	Result	Species	Dose	Exposure
Mineral oil	LD50 Dermal	Rabbit	>2,000 mg/kg	
	LD50 Oral	Rat	>5,000 mg/kg	
2,2,2-nitrilotriethanol	LD50 Dermal	Rabbit	>2,000 mg/kg	
	LD50 Oral	Rat	4,190 mg/kg	
2-aminoethanol	LD50 Dermal	Rabbit	1,025 mg/kg	
	LD50 Oral	Rat	10.2 g/kg	
	LD50 Oral	Mouse	700 mg/kg	
	LD50 Oral	Guinea pig	620 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
2,2,2-nitrilotriethanol	Eyes – Mild irritant	Rabbit	10 mg	
	Eyes – Severe irritant	Rabbit	20 mg	
	Skin – Mild irritant	Human	15 mg	72 hours
	Skin – Mild irritant	Rabbit	560 mg	24 hours

Delayed / Chronic Health Effects

Eye Contact	Irritation, dryness.
Skin Contact	Irritation, redness, defatting, drying, and cracking.
Inhalation	Preexisting respiratory conditions may be aggravated by exposure.
Ingestion	Information based on components of this mixture have may indicate that prolonged or repeated exposure may cause liver and kidney damage.

Skin Corrosion / Irritation	Category 2
Eye Damage / Irritation	Category 2A
Skin Sensitizer	Mixture not determined
Respiratory Sensitizer	Mixture not determined
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.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: Do not release into waterways, water systems, or land. Material is water soluble. 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**
2,2,2-nitrilotriethanol	EC50 216 mg/L	Algae – Desmodesmus subspicatus	72 hours
	EC50 169 mg/L	Algae – Desmodesmus subspicatus	96 hours
	LC50 10,600 mg/L (flow)	Fish – Pimephales promelas	96 hours
	LC50 >1000 mg/L (static)	Fish – Pimephales promelas	96 hours
	LC50 >450 mg/L (static)	Fish – Lepomis macrochirus	96 hours
	EC50 1,386 mg/L (static)	Water Flea – Daphnia magna	24 hours
2-aminoethanol	LC50 114 – 196 mg/L	Fish – Oncorhynchus mykiss	96 hours

Terrestrial Toxicity	Not determined.
Persistence and Degradability	Expected to be partially biodegradable.
Bioaccumulative Potential	Mixture not determined.
Mobility in Soil	Mixture 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

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

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, Skin corrosion or irritation, Serious eye damage or irritation

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

CLEAN WATER ACT (CWA): Not Applicable

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: October 2, 2018
Revision #: 3.0
Supersedes Revision #: DML-2

Prepared or Revised By: Eberle Fluid Technology

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.

HMIS	Health 2	Flammability 1	Physical Hazard 0	PPE B
NFPA	Health 2	Flammability 1	Chemical Reactivity 0	Special Hazards None Known

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