



Gunslick Copper Klenz

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 4/27/2016

Version: 1.1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier

Product Form: Mixture

Product Name: Gunslick Copper Klenz

Synonyms: None

Intended Use of the Product: Firearm bore cleaner

Name, Address, and Telephone of the Responsible Party

Company

Federal Cartridge Company
900 Ehlen Drive
Anoka, MN 55303
T 1-800-635-7656

Emergency Telephone Number

Emergency number : 1-800-424-9300 (Inside US), 01-703-527-3887 (Outside US) - (CHEMTREC, Day or Night)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

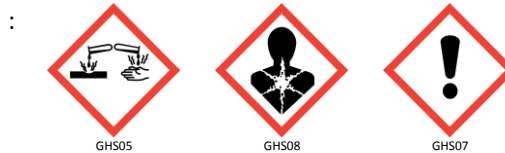
Classification (GHS-US)

Acute Tox. 5 (Oral) H303
Skin Corr./Irrit. 1B H314
Skin Irrit. 2 H315
Eye Irrit. 2A H319
STOT SE 2 H371
STOT SE 3 H335
Repr. 1B H360

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H302 – May be harmful if swallowed
H314 – Causes severe skin burns and eye damage
H315 - Causes skin irritation
H319 – Causes serious eye irritation
H335 – May cause respiratory irritation
H360 - May damage fertility or the unborn child
H371 - May cause damage to organs

Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P314 - Get medical advice and attention if you feel unwell.
P321 - Specific treatment (see section 4).
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to local, regional, national, and international regulations

Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	< 78	Not classified
2-Butoxyethanol	(CAS No) 111-76-2	4.5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
1-Methyl-2-pyrrolidone	(CAS No) 872-50-4	4.9	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 1B, H360 STOT SE 3, H335
Monoethanolamine	(CAS No) 141-43-5	10	Acute Tox. 5 (Oral), H303 Skin Corr./Irrit. 1B, H314 STOT SE 3, H335 STOT SE 2, H371

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Get immediate medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention immediately.

Most Important Symptoms and Effects Both Acute and Delayed

General: May damage fertility or the unborn child. Causes damage to organs. Causes serious eye damage. Causes skin irritation. May be fatal if swallowed and enters airways.

Inhalation: May be corrosive to the respiratory tract.

Skin Contact: Causes severe irritation which will progress to chemical burns. May be absorbed through the skin.

Eye Contact: Causes serious eye damage. Contact may cause immediate severe irritation progressing quickly to chemical burns.

Ingestion: Ingestion is likely to be harmful or have adverse effects. May be fatal if swallowed and enters airways. Contact may cause immediate severe irritation progressing quickly to chemical burns.

Chronic Symptoms: Lung, kidney and liver damage.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

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SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Non-flammable, use media suitable for surrounding materials.

Unsuitable Extinguishing Media: Non-flammable, use media suitable for surrounding materials.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Non-flammable

Explosion Hazard: Non-flammable

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Non-flammable

Firefighting Instructions: Non-flammable

Protection During Firefighting: Use standard firefighting gear.

Hazardous Combustion Products: Non-combustible.

Other information: Do not allow run-off from fire fighting to enter drains or water courses. Do not allow the product to be released into the environment.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Maintain adequate ventilation. Do NOT breathe (gas, vapors, mist, spray). Do not get in eyes, on skin, or on clothing.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: None.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with appropriate personal protective equipment (PPE).

Emergency Procedures: Respiratory protection must be worn if ventilation will not keep levels below recommend exposure limits.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Contact competent authorities after a spill.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: None

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands, forearms, and other exposed areas thoroughly after handling.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: None

Storage Conditions: Store in a dry, cool place. Keep container closed when not in use. Keep/Store away from incompatible materials.

Incompatible Materials: Acids, Copper or copper alloys, galvanizing metals, aluminum, zinc, halogenated organics, halogenated hydrocarbons, Oxidizers, Reducers, Chlorinated compounds.

Storage Temperature: < 48 °C (120°F)

Storage Area: Store locked up.

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Special Rules on Packaging: Keep only in the original container.

Specific End Use(s) Not available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Monoethanolamine (141-43-5)		
Mexico	OEL STEL (mg/m ³)	15 mg/m ³
Mexico	OEL STEL (ppm)	6 ppm
Mexico	OEL TWA (mg/m ³)	8 mg/m ³
Mexico	OEL TWA (ppm)	3 ppm
USA OSHA	OSHA TWA (mg/m ³)	6 mg/m ³
USA OSHA	OSHA TWA (ppm)	3 ppm
USA ACGIH	ACGIH STEL (ppm)	6 ppm
USA ACGIH	ACGIH TWA (ppm)	3 ppm
Alberta	OEL STEL (mg/m ³)	15 mg/m ³
Alberta	OEL STEL (ppm)	6 ppm
Alberta	OEL TWA (mg/m ³)	7.5 mg/m ³
Alberta	OEL TWA (ppm)	3 ppm
British Columbia	OEL STEL (ppm)	6 ppm
British Columbia	OEL TWA (ppm)	3 ppm
Ontario	OEL STEL (ppm)	6 ppm
Ontario	OEL TWA (ppm)	3 ppm
Québec	OEL STEL (ppm)	6 ppm
Québec	OEL TWA (ppm)	3 ppm
Québec	OEL STEL (mg/m ³)	15 mg/m ³
Québec	OEL TWA (mg/m ³)	7.5 mg/m ³
2-Butoxyethanol (111-76-2)		
USA OSHA	OSHA TWA (mg/m ³)	240 mg/m ³
USA OSHA	OSHA TWA (ppm)	50 ppm
USA NIOSH	NIOSH REL (mg/m ³)	24 mg/m ³
USA NIOSH	NIOSH REL (ppm)	5 ppm
USA ACGIH	ACGIH TLV (mg/m ³)	97 mg/m ³
USA ACGIH	ACGIH TLV (ppm)	20 ppm
USA California	TWA (mg/m ³)	97 mg/m ³
USA California	TWA (ppm)	20 ppm
Alberta	OEL TWA (mg/m ³)	97 mg/m ³
Alberta	OEL TWA (ppm)	20 ppm
British Columbia	OEL TWA (ppm)	20
Ontario	OEL TWA (ppm)	20 ppm
Québec	OEL TWA (mg/m ³)	97 mg/m ³
Québec	OEL TWA (ppm)	20 ppm
Saskatchewan	OEL STEL (ppm)	30 ppm
Saskatchewan	OEL TWA (ppm)	20 ppm

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1-Methyl-2-pyrrolidone (872-50-4)		
Ontario	OEL TWA (mg/m ³)	400 mg/m ³
Yukon	OEL STEL (mg/m ³)	500 mg/m ³
Yukon	OEL STEL (ppm)	125 ppm
Yukon	OEL TWA (mg/m ³)	400 mg/m ³
Yukon	OEL TWA (ppm)	100 ppm

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed. adequate ventilation, especially in confined areas.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles

Skin and Body Protection: Wear chemically resistant protective gloves.

Respiratory Protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear. Yellow.
Odor	: Glycol ether odor
Odor Threshold	: Not available
pH	: 11.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: ~1.1
Upper Flammable Limit	: ~17
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific Gravity	: 1.005 @ 25°C (77°F)
Solubility	: Complete.
Log Pow	: Not available
Log Kow	: Not available
Viscosity, Kinematic	: Not available
Viscosity, Dynamic	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not available

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Explosion Data – Sensitivity to Static Discharge : Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Incompatible materials.

Incompatible Materials: Acids, Copper or copper alloys, galvanizing metals, aluminum, zinc, halogenated organics, halogenated hydrocarbons, Oxidizers, Reducers, Chlorinated compounds.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Ammonia. Aldehydes. Ketones.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity : Not classified

Skin Corrosion/Irritation: Causes skin burns and damage.

Serious Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Suspected of causing cancer.

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: May damage fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Respiratory tract irritation. Corrosive to the respiratory tract.

Symptoms/Injuries After Skin Contact: Causes severe irritation which will progress to chemical burns.

Symptoms/Injuries After Eye Contact: Causes serious eye damage. Contact may cause immediate severe irritation progressing quickly to chemical burns.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects. May be fatal if swallowed and enters airways. Contact may cause immediate severe irritation progressing quickly to chemical burns.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data

Water (7732-18-5)	
LC50 Inhalation Rat (ppm)	100000 ppm
1-Methyl-2-pyrrolidone (872-50-4)	
LD50 Oral Rat	4150 mg/kg
LD50 Dermal Rabbit	> 5000 mg/kg
LC50 Inhalation Rat (mg/l)	5.1 mg/l/4h
ATE (dermal)	8000.000 mg/kg body weight
Monoethanolamine (141-43-5)	
LD50 Oral Rat (mg/kg)	1720 mg/kg
LD50 Dermal Rabbit (mg/kg)	1025 mg/kg
LD50 Dermal Rabbit (ml/kg)	1 ml/kg
2-Butoxyethanol (111-76-2)	
LD50 Oral Rat	470 mg/kg
LD50 Dermal Rabbit (mg/kg)	220 mg/kg
LD50 Dermal Rat (mg/kg)	2500 mg/kg
LC50 Inhalation Rat (ppm)	450 ppm/4h
LC50 Inhalation Rat (mg/L)	2.21 mg/L/4h

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SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not classified

1-Methyl-2-pyrrolidone (872-50-4)	
LC50 Fish 1	832 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	4897 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	> 500 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)
LC 50 Fish 2	1072 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Persistence and Degradability

Gunslick Copper Klenz	
Persistence and Degradability	Not established.

Bioaccumulative Potential

Gunslick Copper Klenz	
Bioaccumulative Potential	Not established.

1-Methyl-2-pyrrolidone (872-50-4)	
Log Pow	-0.46 (at 25 °C)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: None

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG

UN Number

UN-No.(DOT): UN3267

DOT NA no.: None

UN Proper Shipping Name

DOT Proper Shipping Name : Corrosive liquid, basic, organic, n.o.s. (contains Ethanolamine)

Hazard Labels (DOT) :



DOT Special Provisions (49 CFR 172.102) : None applicable to this size

DOT Packaging Exceptions (49 CFR 173.xxx) : 173.154 Limited Quantity

DOT Packaging Non Bulk (49 CFR 173.xxx) : 173.203

DOT Packaging Bulk (49 CFR 173.xxx) : None applicable to this size

Additional Information

Emergency Response Guide (ERG) Number : 153

Transport by sea

DOT Vessel Stowage Location : Not classified

DOT Vessel Stowage Other :

MFAG-No :

Air transport

DOT Quantity Limitations Passenger Aircraft/Rail (49 CFR 173.27) : 5 L

DOT Quantity Limitations Cargo Aircraft Only (49 CFR 175.75) : 60 L

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SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Gunslick Copper Klenz	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
Monoethanolamine (141-43-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
2-Butoxyethanol (111-76-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
1-Methyl-2-pyrrolidone (872-50-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 %

US State Regulations

Monoethanolamine (141-43-5)	
U.S. - California - Listed Substance U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
2-Butoxyethanol (111-76-2)	
U.S. - California - Proposition 65 - May contain traces of Ethylene Oxide U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
1-Methyl-2-pyrrolidone (872-50-4)	
U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL) U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities U.S. - Maine - Chemicals of High Concern U.S. - Massachusetts - Right To Know List U.S. - Massachusetts - Toxics Use Reduction Act U.S. - Minnesota - Chemicals of High Concern U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances U.S. - New Jersey - Environmental Hazardous Substances List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New Jersey - Special Health Hazards Substances List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term	

Canadian Regulations

Gunslick Copper Klenz	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

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Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Uncontrolled product according to WHMIS classification criteria

1-Methyl-2-pyrrolidone (872-50-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Class B Division 3 - Combustible Liquid
Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Monoethanolamine (141-43-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

2-Butoxyethanol (111-76-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification Class B Division 3 – Combustible Liquid
Class D Division 1 Subdivision A – Very toxic material causing immediate and serious effects
Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION

Revision date : 4/27/2016

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

Federal Cartridge Company
900 Ehlen Drive
Anoka, MN 55303
1-800-635-7656

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

North America GHS US 2012 & WHMIS