

SECTION 1: IDENTIFICATION**Product Identifier****Product Form:** Mixture**Product Name:** HDL-125**Product Code:** 77500**Intended Use of the Product****Use of the Substance/Mixture:** Low foaming metal cleaner. For professional use only.**Name, Address, and Telephone of the Responsible Party****Company**

Better Engineering Mfg., Inc.

1802 Fashion Court

Joppa, Maryland 21085 USA

T: 800-229-3380

www.betterengineering.com**Emergency Telephone Number****Emergency number** : 1-800-535-5053 (INFOTRAC)**SECTION 2: HAZARDS IDENTIFICATION****Classification of the Substance or Mixture****Classification (GHS-US)**

Skin Irrit. 2 H315

Eye Dam. 1 H318

Label Elements**GHS-US Labeling****Hazard Pictograms (GHS-US)** :

GHS05

Signal Word (GHS-US) :

: Danger

Hazard Statements (GHS-US) :: H315 - Causes skin irritation
H318 - Causes serious eye damage**Precautionary Statements (GHS-US)** :: P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician.
P321 - Specific treatment (see section 4).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing.**Other Hazards****Other Hazards Not Contributing to the Classification:****Other Hazards:** Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes.**Unknown Acute Toxicity (GHS-US)** Not available**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****Substances**

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	80 - 90	Not classified

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Alcohols, C10-16, ethoxylated propoxylated	(CAS No) 69227-22-1	1-5	Not classified
N,N -Didecyl-N,N-dimethylammonium bicarbonate and N,N -Didecyl-N,N-dimethylammonium carbonate	(CAS No. 148812-65-1 and 148788-55-0)	1-5	Skin Corr. 1B, H314 Eye Dam. 1, H318
Alcohol ethoxylate	(CAS No) 58229-81-5	1-5	Acute Toxicity 5 (Oral),H303 Skin Irrit. 2, H315 Eye Irrit 2A, H319 STOT SE 3, H335
Sodium metasilicate	(CAS No) 6834-92-0	0.1-1	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335
Tetrasodium EDTA	(CAS No. 64-02-8	0.1-1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Dam. 1, H318 Aquatic Acute 2, H401
Sodium citrate dihydrate	(CAS No) 6132-04-3	0.1-1	Not classified

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention.

Skin Contact: Immediately flush skin with plenty of water for several minutes. Get immediate medical advice/attention. Wash contaminated clothing before reuse.

Eye Contact: Seek medical attention immediately. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye damage. Causes skin irritation.

Inhalation: Not classified

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects. Contact may cause immediate severe irritation progressing quickly to chemical burns.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide, foam, dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Thermal decomposition generates: Corrosive vapors, toxic fumes, sodium oxides, nitrogen oxides, silicon oxides, carbon oxides.

Advice for Firefighters

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

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

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Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Corrosive vapors, toxic fumes, sodium oxides, nitrogen oxides, silicon oxides, carbon oxides..

Other information: Do not allow run-off from firefighting to enter drains or water courses.

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: Do not allow product to spread into the environment. Do not get in eyes, on skin, or on clothing.

For Non-Emergency Personnel

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

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: None

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

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. Cautiously neutralize spilled liquid.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Cautiously neutralize spilled liquid. 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: When heated to decomposition, emits toxic fumes. Corrosive vapors are released.

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 and forearms thoroughly after handling.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from extremely high or low temperatures, incompatible materials. **Incompatible Materials:** Strong acids. Strong oxidizers. **Special Rules on**

Packaging: Keep only in original container. **Specific End Use(s)**

Low foaming metal cleaner. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

None

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Gloves.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles.

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Skin and Body Protection: None usually needed.

Respiratory Protection: None usually needed.

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 colorless liquid
Odor	: Characteristic
Odor Threshold	: Not available
pH	: 11.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 105 °C (221 °F)
Flash Point	: None
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not flammable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific Gravity	: 1.02
Solubility	: Complete.
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Thermal decomposition generates: Corrosive vapors, toxic fumes, sodium oxides, nitrogen oxides, silicon oxides, carbon oxides.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Extremely high or low temperatures. Incompatible materials.

Incompatible Materials: Strong acids, strong oxidizers.

Hazardous Decomposition Products: Sodium oxides, nitrogen oxides, silicon oxides, carbon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes skin irritation. pH: 11.5

Serious Eye Damage/Irritation: Causes serious eye damage. pH: 11.5

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

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Aspiration Hazard: Not classified **Symptoms/Injuries After**

Inhalation: Not classified **Symptoms/Injuries After Skin Contact:**

Causes skin irritation. **Symptoms/Injuries After Eye Contact:**

Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects. 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)	
LD50 Oral Rat	> 90000 mg/kg
Alcohols, C10-16, ethoxylated propoxylated (69227-22-1)	
LD50 Oral	>2000 mg/kg
Tetrasodium EDTA (64-02-8)	
LD50 Oral Rat	1780 mg/kg
ATE US (dust, mist)	1.50 mg/l/4h
N,N -Didecyl-N,N-dimethylammonium carbonate (148788-55-0)	
LD50 Oral Rat	245 mg/kg
Sodium metasilicate (6834-92-0)	
LD50 Oral Rat	1153 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not classified

Alcohols, C10-16, ethoxylated propoxylated (69227-22-1)	
LC50 Fish 1	>1-10 mg/l
EC50 Aquatic Invertebrates	>1-10 mg/l
EC50 Aquatic Plants	>1-10 mg/l
Tetrasodium EDTA (64-02-8)	
LC50 Fish 1	41 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC 50 Fish 2	59.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
ErC50 (algae)	2.77 mg/l (72 h - Species: Desmodesmus subspicatus)
N,N -Didecyl-N,N-dimethylammonium carbonate (148788-55-0)	
LC50 Fish 1	0.28 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus (bluegill sunfish))
EC 50 Invertebrates	0.066 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Sodium metasilicate (6834-92-0)	
LC50 Fish 1	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
LC 50 Fish 2	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)

Persistence and Degradability Not available

Bioaccumulative Potential

Tetrasodium EDTA (64-02-8)	
Log Pow	5.01 (calculated)
Bioaccumulative Potential	Not established.

Mobility in Soil Not available

Other Adverse Effects

Other Information: Not available

SECTION 13: DISPOSAL CONSIDERATIONS

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

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SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT: Not regulated for transport

14.2 In Accordance with IMDG: Not regulated for transport

14.3 In Accordance with IATA: Not regulated for transport

14.4 In Accordance with TDG: Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

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SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Alcohols, C10-16, ethoxylated propoxylated (69227-22-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Tetrasodium EDTA (64-02-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium metasilicate (6834-92-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Alcohol ethoxylate (58229-81-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium citrate dihydrate (6132-04-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

Tetrasodium EDTA (64-02-8)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Sodium citrate dihydrate (6132-04-3)

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

Sodium metasilicate (6834-92-0)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Alcohol ethoxylate (58229-81-5)

U.S. - New Jersey - Right to Know Hazardous Substance List

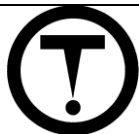
U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

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WHMIS Classification

Class D Division 2 Subdivision B - Toxic material causing other toxic effects



Water (7732-18-5)

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

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

Alcohols, C10-16, ethoxylated propoxylated (69227-22-1)

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

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WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Alcohol ethoxylate (58229-81-5)

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

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Sodium metasilicate (6834-92-0)

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

Listed on the Canadian Ingredient Disclosure List

IDL Concentration 1 %

WHMIS Classification	Class E - Corrosive Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Tetrasodium EDTA (64-02-8)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material
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N,N -Didecyl-N,N-dimethylammonium bicarbonate and N,N -Didecyl-N,N-dimethylammonium carbonate(148812-65-1 and 148788-55-0)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class E - Corrosive Material
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Sodium citrate dihydrate (6132-04-3)

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

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

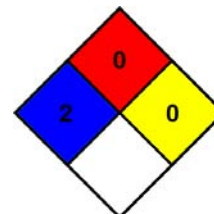
SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date	: 03/10/2021
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
H315	Causes skin irritation
H318	Causes serious eye damage

NFPA Health Hazard	: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA Fire Hazard	: 0 - Materials that will not burn.
NFPA Reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 0 Minimal Hazard
Physical	: 0 Minimal Hazard

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Party Responsible for the Preparation of This Document

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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