



Section 01 - Identification

Product Identifier	Lightening Heavy Duty Degreaser
Other Means of Identification	None
Product Use and Restrictions on Use	Concentrated formula designed to attack and loosen moderate to heavy grease and oil build-up.
Initial Supplier Identifier	Advance Chemicals Ltd. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
24-Hour Emergency Phone	Phone: 1 (306) 664 – 2522

Section 02 - Hazard Identification

GHS-Classification

Acute Toxicity-Dermal	Category 4
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Irritation	Category 1
STOT-Single Exposure	Category 3

Physical Hazards

Corrosive to Metals	Category 1
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Danger

Hazards Statements

H312 – Harmful in contact with skin.
H314 – Causes severe skin burns and eye damage.
H335 – May cause respiratory irritation.
H290 – May be corrosive to metals.

Pictograms



Precautionary Statements

P234 – Keep only in original container.

P405 – Store locked up.

P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.

P271 – Use only outdoors or in a well-ventilated area.

P260 – Do not breathe mist, vapours or spray.

P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P280 – Wear protective gloves, protective clothing, eye protection, and face protection.

P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P363 – Wash contaminated clothing before reuse.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P310 – Immediately call a POISON CENTER or doctor/physician.

P390 – Absorb spillage to prevent material damage.

P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Potassium Hydroxide	1310-58-3	1-15%	
Sodium Metasilicate	6834-92-0	1-15%	
Glycol Ether EB	111-76-2	5-20%	
Water and/or ingredients not classified as hazardous under the Hazardous Products Regulations		Balance	

Section 04 - First Aid Measures

Inhalation	If symptoms are experienced, remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.
Skin Contact / Absorption	Remove contaminated clothing. Rinse skin with lukewarm, gently flowing water and non-abrasive soap for 60 minutes. Seek immediate medical attention. Completely decontaminate clothing, shoes and leather goods before re-use or discard.
Eye Contact	Immediately flush eye(s) with lukewarm, gently flowing water for 60 minutes, while forcibly holding the eyelid(s) open to ensure complete irrigation of the eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention.
Ingestion	Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth with water. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Have victim rinse mouth again. Seek immediate medical attention.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Use extinguishing media suitable for surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Carbon monoxide, carbon dioxide and other irritating fumes.

Special Protective Equipment and Precautions for Fire-Fighters Wear NIOSH-approved self-contained breathing apparatus and protective gear.

Further Information Not Available

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.

Environmental Precautions Prevent product from entering sewers or waterways.

Methods and Materials for Containment and Cleaning Up Clean up spill with non-reactive absorbent material and place in suitable, labelled containers for proper disposal.

Section 07 - Handling and Storage

Precautions for Safe Handling Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Conditions for Safe Storage Store in a cool, dry, well-ventilated area out of direct sunlight and away from open flames, sparks, heat and other ignition sources.

Incompatibilities Strong oxidizing agents, bases, acids, metals.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Potassium Hydroxide	ACGIH	TLV-C	2 mg/m ³
	OSHA	PEL-C	2 mg/m ³
Glycol Ether EB	ACGIH	TLV-TWA	20 ppm
	OSHA	PEL-TWA	25 ppm
	OSHA	PEL-T-TWA	50 ppm

Engineering Control(s)

Ventilation Requirements Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

Hand Protection Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Skin and Body Protection Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

Respiratory Protection Wear a NIOSH-approved respirator upon vapour or mist formation.

Thermal Hazards Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State Liquid

Colour Yellow

Odour Solvent-like

Odour Threshold Not Available

Property

pH 13.3

Melting Point/Freezing Point Not Available

Initial Boiling Point and Boiling Range Not Available

Flash Point Not Applicable

Evaporation Rate Not Available

Flammability Non-flammable

Upper Flammable Limit Not Applicable

Lower Flammable Limit Not Applicable

Vapour Pressure (mm Hg, 20°C) 18.5

Vapour Density (Air=1) Not Available

Relative Density Not Available

Solubility(ies) Soluble in water

Partition Coefficient: n-octanol/water Not Available

Auto-ignition Temperature Not Applicable

Decomposition Temperature Not Available

Viscosity Not Available

Explosive Properties None

Specific Gravity (Water=1) 1.025

% Volatiles by Volume	Not Available
Formula	Mixture
Molecular Weight	Not Available

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Normally stable.
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Heat, sparks, open flames and other ignitions sources.
Incompatible Materials	Strong oxidizing agents, bases, acids, metals.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide and other irritating fumes.

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀
Lightening Heavy Duty Degreaser	7.8 g/kg	1.9 g/kg	20 mg/L

This product has been classified in accordance with the Hazardous Products Regulations using ATE formula documented in the GHS standard.

Chronic Toxicity – Carcinogenicity

Component	IARC
Lightening Heavy Duty Degreaser	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

Skin Corrosion/Irritation	Capable of causing severe burns, blisters, ulcers and permanent scarring. Glycol EB can be absorbed through the skin and show symptoms of central nervous system depression.
Ingestion	Can cause burns to the lips, tongue, throat, esophagus and stomach; abdominal pains; nausea; vomiting; diarrhea and death.
Inhalation	Inhalation of vapours or mists may cause irritation to the respiratory tract.
Serious Eye Damage/Irritation	Corrosive. Capable of causing severe eye burns and permanent damage, including blindness.
Respiratory or Skin Sensitization	Not Available
Germ Cell Mutagenicity	Not Available
Reproductive Toxicity	Not Available
STOT-Single Exposure	May cause irritation to the respiratory tract.
STOT-Repeated Exposure	Not Available
Aspiration Hazard	Not Available
Synergistic Materials	Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Potassium Hydroxide	EC ₅₀ (Algae, 120hr): 1337mg/L	LC ₅₀ (Gambusia affinis, 96hr): 80mg/L	LC ₅₀ (Ceriodaphnia dubia, 48hr): 40mg/L
Sodium Metasilicate	Not Available	Not Available	EC ₅₀ (Ceriodaphnia dubia, 48hr): 33.53 mg/L
Glycol Ether EB	EC ₅₀ (Algae, 7d): >1,000 mg/L	LC ₅₀ (Leuciscus idus melanotus, 48hr): 186 mg/L	LC ₅₀ (Daphnia magna, 24hr): 1,720 mg/L

Biodegradability

Potassium hydroxide and glycol ether EB are expected to biodegrade.

Bioaccumulation

Potassium hydroxide is not expected to bioaccumulate.

Mobility

Glycol ether EB is expected to have high mobility in the soil.

Other Adverse Effects

Not Available

Section 13 – Disposal Considerations

Waste From Residues/Unused Products

Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Contaminated Packaging

Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number	UN3266								
UN Proper Shipping Name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide)								
Transport Hazard Class(es)	8								
Packaging Group	III								
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.								
Special Precautions	Not Available								
Transport in Bulk	Not Available								
Additional Information	<table><thead><tr><th><u>Packing Group</u></th><th><u>Limited Quantity Index</u></th></tr></thead><tbody><tr><td>I</td><td>0</td></tr><tr><td>II</td><td>1 L</td></tr><tr><td>III</td><td>5 L</td></tr></tbody></table>	<u>Packing Group</u>	<u>Limited Quantity Index</u>	I	0	II	1 L	III	5 L
<u>Packing Group</u>	<u>Limited Quantity Index</u>								
I	0								
II	1 L								
III	5 L								

TDG

Other Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date

December 30, 2015

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator

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If you have any questions or concerns please call our customer service center.

References:

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA
- 7) PAN

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