



Section 01 - Identification

Product Identifier	Clarity
Other Means of Identification	None
Product Use and Restrictions on Use	Liquid detergent for hard water conditions in commercial dishwashers.
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-Oral	Category 4
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Irritation	Category 1

Physical Hazards

Corrosive to Metals	Category 1
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Danger

Hazards Statements

H302 – Harmful if swallowed.
H314 – Causes severe skin burns and eye damage.
H290 – May be corrosive to metals.

Pictograms



Precautionary Statements

P234 – Keep only in original container.

P405 – Store locked up.

P201 – Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

P308 + P313 – IF exposed or concerned: Get medical advice/attention.

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.

P270 – Do not eat, drink or smoke when using this product.

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

P303 + P361 + P353 – IF ON SKIN (or hair): 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.

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%	
Tetrapotassium Pyrophosphate	7320-34-5	1-15%	
Sodium Silicate	1344-09-8	1-15%	
Water and/or ingredients not classified as hazardous under the Hazardous Products Regulations		Balance	

Section 04 - First Aid Measures

Inhalation	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 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. Neutral saline solution may be given as soon as it is available. 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 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 agent suitable for surrounding fire.
Unsuitable Extinguishing Media	Carbon dioxide.
Specific Hazards Arising From the Chemical	Sodium oxide and phosphorus oxides fumes can be generated by thermal decomposition at elevated temperatures. Closed containers may rupture when heated.

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 Solution can be carefully neutralized with acids such as acetic and hydrochloric acid. Clean up spill with non-reactive absorbent and place in suitable, labelled containers for proper disposal.
LARGE SPILLS: Contact fire and emergency services and supplier for advice.

Section 07 - Handling and Storage

Precautions for Safe Handling This material is EXTREMELY CORROSIVE. 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. Keep quantity stored as small as possible. Storage area should be clearly identified, clear of obstruction and accessibly by trained and authorized personnel. Post warning signs.

Incompatibilities Acids, nitro compounds, flammable liquids and organic compounds. Contact with soft metals may produce flammable hydrogen gas..

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Sodium Hydroxide	ACGIH	TLV-C	2 mg/m ³
	OSHA	PEL-C	2 mg/m ³
	OSHA	PEL-T-TWA	2 mg/m ³

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 suite, 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	Not needed under normal conditions.
Thermal Hazards	Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Liquid
Colour	Deep red
Odour	Caustic-like odour
Odour Threshold	Not Available

Property

pH	14.5
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)	Not Available
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 Available
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	None

Specific Gravity (Water=1)	1.215
% Volatiles by Volume	Not Available
Formula	Mixture
Molecular Weight	Not Available

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Stable.
Possibility of Hazardous Reactions	Polymerization will not occur.
Conditions to Avoid	Heat.
Incompatible Materials	Water, acids, nitro compounds, flammable liquids and organic compounds. Contact with soft metals may produce flammable hydrogen gas.
Hazardous Decomposition Products	Sodium oxide fumes may be generated by thermal decomposition at high temperatures.

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀
Clarity	1197 mg/kg	8820 mg/kg	5673 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

Clarity

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	Corrosive. Capable of producing severe burns, blisters, ulcers and permanent scarring.
Ingestion	Harmful if swallowed. Can cause burns to the mouth, throat, esophagus and stomach; abdominal pain; nausea; vomiting; diarrhea and death.
Inhalation	Vapours and mists may cause irritation to the upper respiratory tract.
Serious Eye Damage/Irritation	Corrosive. Capable of causing burns to the eyes and permanent injury, including blindness.
Respiratory or Skin Sensitization	Not Available
Germ Cell Mutagenicity	Not Available
Reproductive Toxicity	Not Available
STOT-Single Exposure	Not Available
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	EC ₅₀ (Ceriodaphnia dubia, 48hr): 40 mg/L
Biodegradability	Not Available		
Bioaccumulation	Not Available		
Mobility	Not Available		
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	II								
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

April 8, 2016

Revision Date

2017 April 28

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

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution[®] initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

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

Advance Chemicals Ltd. - Locations

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