



Section 01 - Identification

Product Identifier	Clear
Other Means of Identification	None
Product Use and Restrictions on Use	Liquid detergent for commercial dishwashers with feed systems.
Initial Supplier Identifier	Advance Chemicals Ltd. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
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Section 02 - Hazard Identification

GHS-Classification

Acute Toxicity-Oral	Category 4
Skin Damage/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

H302 – Harmful if swallowed.
H314 – Causes severe skin burns and eye damage.
H290 – May be corrosive to metals.
H335 – May cause respiratory irritation.

Pictograms



Precautionary Statements

P405 – Store locked up.

P234 – Keep only in original container.

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

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.

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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P363 – Wash contaminated clothing before reuse.

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

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

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	5-20%	
Sodium Hydroxide	1310-73-2	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	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. Immediately rinse skin with lukewarm, gently flowing water for at least 60 minutes. Seek immediate medical attention. Completely decontaminate clothing, shoes and leather goods before re-use or discard.
Eye Contact	Immediate flush eye(s) with lukewarm, gently flowing water for at least 60 minutes, while 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 used 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 thoroughly with water. DO NOT INDUCE VOMITING. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Seek immediate medical attention.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Use extinguishing media suitable for surrounding fire. Use water to cool fire exposed containers to prevent vapour build-up and rupture. Water may also be used to flush spills away from dangerous exposures.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Hydrogen gas may be generated when product comes into contact with soft metals.

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 material from entering sewers or waterways.

Methods and Materials for Containment and Cleaning Up SMALL SPILLS: Liquid should be wiped up with absorbent material and disposed of in government approved waste containers for proper disposal. The spill area may then be flushed with large quantities of water.
LARGE SPILLS: Contain spill by diking with sand, soil or other absorbent, non-combustible material, then transferred into approved waste containers for proper disposal. Do not allow spilled, or waste containers for proper disposal
Note: empty containers can have residues, gasses and mists, and are subject to proper waste disposal as mentioned above.

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 Keep container tightly closed when not in use. Store upright in a cool, dry, well-ventilated place away from incompatible materials. Do not use pressure to empty container.

Incompatibilities Acids, acrylonitrile, chlorinated hydrocarbons, chlorine dioxide, maleic anhydride, nitroethane, nitroparaffins, nitropropane, nitrophenol, phosphorus, potassium persulfate and tetrahydrofuran.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

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

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)	Completely soluble in water.
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available

Explosive Properties	Not Available
Specific Gravity (Water=1)	1.20 g/mL
% 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	Contact with soft metals. Product may absorb carbon dioxide gas from the atmosphere or other sources, and form sodium carbonate. May spatter upon contact with water.
Incompatible Materials	Acids, acrylonitrile, chlorinated hydrocarbons, chlorine dioxide, maleic anhydride, nitroethane, nitroparaffins, nitropropane, nitrophenol, phosphorus, potassium persulfate and tetrahydrofuran.
Hazardous Decomposition Products	Sodium carbonate, hydrogen gas.

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀
Clear	1498 mg/kg	8217 mg/kg	Not Available

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
Clear	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. May cause severe and deep skin burns. Painful tissue destruction may result and the sensation of pain may be delayed.
Ingestion	May cause pain and severe vomiting, burns of the throat and esophagus, and perforation of the esophagus. May be fatal.
Inhalation	Severe irritation of the throat and nasal passages may result from inhaling dust or mists of the product.
Serious Eye Damage/Irritation	Corrosive. Causes corneal scarring and clouding. Glaucoma, cataracts and permanent blindness may occur. Damage may be delayed and not immediately apparent.
Respiratory or Skin Sensitization	Not Available
Germ Cell Mutagenicity	Not Available

Reproductive Toxicity	Not Available
STOT-Single Exposure	May cause respiratory irritation.
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	Not Available	LC ₅₀ (Gambusia affinis, 96hr): 80mg/L	Not Available
Sodium Hydroxide	Not Available	LC ₅₀ (Gambusia affinis, 96hr): 125mg/L	EC ₅₀ (Ceriodaphnia dubia, 48hr): 40.38mg/L
Sodium Silicate	EbC ₅₀ (Green Algae, 72hr): 207mg/L	LC ₅₀ (Gambusia affinis, 96hr): 1800mg/L	EC ₅₀ (Ceriodaphnia dubia, 48hr): 0.4mg/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	<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 February 23, 2016

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

Advance Chemicals Ltd. - Locations

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