



Section 01 - Identification

Product Identifier	Advance CAP 4
Other Means of Identification	None
Product Use and Restrictions on Use	Powdered, non-chlorinated dishwashing concentrate. Formulated for economical use in water of varying hardness and is recommended for use in institutions such as schools, nursing homes, hospitals and restaurants.
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
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Section 02 - Hazard Identification

GHS-Classification

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

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

Pictograms



Precautionary Statements

P405 – Store locked up.

P234 – Keep only in original container.

P260 – Do not breathe dust.

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 + P553 – 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
Sodium Carbonate	497-19-8	25-40%	
Sodium Hydroxide	1310-73-2	40-55%	
Sodium Tripolyphosphate	7758-29-4	1-15%	
Sodium Metasilicate	6834-92-0	1-15%	
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 at least 60 minutes. DO NOT INTERRUPT FLUSHING. Seek immediate medical attention. Completely decontaminated 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 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 repeat water administration. Seek medical attention.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media Use extinguishing media suitable for surrounding fire.

Unsuitable Extinguishing Media Carbon dioxide.

Specific Hazards Arising From the Chemical Solid sodium hydroxide in contact with moisture or water may generate sufficient heat to ignite nearby combustible materials. When moist, sodium hydroxide can react with metals, such as aluminum, tin and zinc, to form flammable and explosive hydrogen gas. Sodium hydroxide can react with a number of commonly encountered materials, such as acids, releasing enough heat to ignite nearby combustible materials. When heated to temperatures greater than 318-323°C, solid sodium hydroxide will flow to low ground.

When hot or in the molten state, it can react violently with water causing spattering and releasing an irritating mist. Corrosive fumes of sodium oxide, carbon monoxide and carbon dioxide are formed in a fire. Sodium carbonate slowly begins to decompose into corrosive sodium oxide and carbon dioxide at 400°C. Closed containers may rupture violently 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 and waterways.

Methods and Materials for Containment and Cleaning Up Shovel or sweep up dry product for recycling or disposal. Neutralize the final traces and flush area with water. Solutions should be contained by diking with inert material, such as sand or earth. Solutions can be recovered or carefully diluted with water and cautiously neutralized with acids such as acetic acid or hydrochloric acid.
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 and HIGHLY REACTIVE. 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. Store away from incompatible materials.

Incompatibilities Strong acids, nitroaromatic, nitroparaffinic or organohalogen compounds

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
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	<p>Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.</p> <p>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.</p>
Respiratory Protection	<p>NIOSH RECOMMENDATIONS FOR SODIUM HYDROXIDE CONCENTRATIONS IN AIR:</p> <p>Up to 10mg/m³: (APF=25) Any supplied-air respirator operated in a continuous-flow mode. Any powered air-purifying respirator with a high-efficiency particulate filter. (APF=50) Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter. Any self-contained breathing apparatus with a full facepiece. Any supplied-air respirator with a full facepiece.</p> <p>Emergency or planned entry into unknown concentrations or IDLH conditions: (APF=10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus.</p> <p>Escape: (APF=50) Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter. Any appropriate escape-type, self-contained breathing apparatus.</p> <p>NOTE: The IDLH concentration for sodium hydroxide is 10mg/m³.</p>
Thermal Hazards	Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Solid, powder
Colour	Off white
Odour	Odourless
Odour Threshold	Not Applicable

Property

pH	13-14 (1% solution)
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 Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	None
Specific Gravity (Water=1)	1.654
% Volatiles by Volume	Not Available
Formula	Mixture
Molecular Weight	Not Available

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Normally stable. Sodium hydroxide can rapidly absorb carbon dioxide and water from the air forming sodium carbonate.
Possibility of Hazardous Reactions	None known.
Conditions to Avoid	Water, generation of dust.
Incompatible Materials	Strong acids, nitroaromatic, nitroparaffinic or organohalogen compounds
Hazardous Decomposition Products	Fumes of sodium oxide, carbon monoxide and carbon dioxide may be generated by thermal decomposition at high temperatures.

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀
Advance CAP 4	597 mg/kg	1,357 mg/kg	0.432 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

Advance CAP 4

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, blister, ulcers and permanent scarring.
Ingestion	Ingestion can result in burns to the lips, tongue, throat, esophagus and stomach; abdominal pain; nausea; vomiting; diarrhea and death.
Inhalation	Dust may cause severe irritation of the respiratory tract.
Serious Eye Damage/Irritation	Corrosive. Capable of producing severe eye burns and permanent injury, including blindness.
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
Sodium Metasilicate	Not Available	Not Available	EC ₅₀ (Ceriodaphnia dubai, 48hr): 33.53mg/L
Sodium Hydroxide	Not Available	LC ₅₀ (Gambusia affinis, 96hr): 125mg/L	EC ₅₀ (Ceriodaphnia dubai, 48hr): 40.38mg/L
Sodium Carbonate	EC ₅₀ (Diatom, 96hr): 242 mg/L	LC ₅₀ (Lepomis macrochirus, 24hr): 167mg/L	LC ₅₀ (Daphnia magna, 24hr): 196mg/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	UN1823
UN Proper Shipping Name	SODIUM HYDROXIDE, SOLID
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>
	II	1 Kg

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 November 23, 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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