



Section 01 - Identification

Product Identifier	Advantage HD
Other Means of Identification	None
Product Use and Restrictions on Use	Specially formulated heavy duty cleaner for removal of grease, oils protein, blood, and fish processing residual.
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

Skin Corrosion/Irritation Category 1A

Serious Eye Damage/Irritation Category 1

Physical Hazards

Corrosive to Metals Category 1

Danger

Hazards Statements

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.

P260 – Do not breathe mist, vapours or spray.

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

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.

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

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

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
Sodium Hypochlorite	7681-52-9	1-15%	
Sodium Dodecyl Diphenyl Ether Disulfonate	119345-04-9	1-15%	
Sodium Hydroxide	1310-73-2	20-35%	
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 immediate 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 decontaminate clothing, shoes and leather goods before re-use or discard.
Eye Contact	Immediately flush eye(s) with lukewarm, gently flowing water for at least 60 minutes, while holding the eyelid(s) open. 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	Provide general supportive measures (comfort, warmth, rest). Consult a doctor and/or the nearest Poison Control Centre for all exposure except minor instances of inhalation.

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Use extinguishing media suitable for surrounding fire and compatible with sodium hydroxide and sodium hypochlorite.
Unsuitable Extinguishing Media	Carbon dioxide or dry chemical fire extinguishing agents containing ammonium compounds.
Specific Hazards Arising From the Chemical	This product decomposes thermally above 40°C. Hazardous and toxic decomposition products may include chlorine gas, oxygen and sodium chlorate. Unvented containers will build-up internal pressure and may rupture causing a product leak. Vigorous reaction with oxidizable and organic materials may result in fire.
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective gear.

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.
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. Paper towels may become extremely hot when saturated with this product and cause a secondary fire hazard. Rinse out absorbent materials used in small spill recovery with plenty of water. LARGE SPILLS: Liquid should be contained by diking with sand, soil or other absorbent, non-combustible material, then transferred into approved waste containers for proper disposal.

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, well ventilated area. Keep away from heat, sparks and open flames. Store away from direct sunlight. Do not expose sealed containers to temperatures above 40°C.
Incompatibilities	Acids, ammonium salts, aqueous ammonium hydroxide solution, metals, oxidizers, nitrogen compounds, and methanol.

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
	OSHA	PEL-T-TWA	2mg/m ³
Sodium Hypochlorite	WEELs	WEEL-STEL	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 should 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	NIOSH RECOMMENDATIONS FOR SODIUM HYDROXIDE CONCENTRATIONS IN AIR (3): Up to 10 mg/m ³ : (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.
Thermal Hazards	Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Liquid
Colour	Clear, golden yellow
Odour	Chlorine-like
Odour Threshold	Not Available

Property

pH	12.5-13.5
Melting Point/Freezing Point	-26°C – 1°C
Initial Boiling Point and Boiling Range	Decomposes at 40°C
Flash Point	Not Applicable
Evaporation Rate	The only evaporation that occurs is water.
Flammability	Non-flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	~0
Vapour Density (Air=1)	Not Applicable
Relative Density	Not Available
Solubility(ies)	Completely soluble in water.
Partition Coefficient: n-octanol/water	Not Applicable
Auto-ignition Temperature	Not Applicable

Decomposition Temperature	40°C
Viscosity	4.62 – 13.52 cP
Explosive Properties	Not Available
Specific Gravity (Water=1)	1.16-1.17
% Volatiles by Volume	Not Available
Formula	Not Available
Molecular Weight	Not Available

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Under normal storage conditions and use, this product will slowly decompose over time. The long term decomposition products are not dangerous if the product is stored in a cool, dry, well ventilated area away from direct exposure to sunlight.
Possibility of Hazardous Reactions	Polymerization will not occur.
Conditions to Avoid	High temperatures, open flame, direct sunlight (UV radiation initiates decomposition). When heated, contacted with acids, oxidizers or organic materials, a vigorous reaction may release chlorine gas and heat, resulting in a fire hazard. Allow any paper towels or rags used to wipe up spills to dry, or rinse with water before discarding in an approved manner.
Incompatible Materials	All acids, ammonium salts, aqueous ammonium hydroxide solutions, metals, oxidizers, nitrogen compounds, and methanol.
Hazardous Decomposition Products	Chlorine gas, oxygen and sodium chlorate.

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀
Advantage HD	574 mg/kg	2045 mg/kg	5250 mg/m ³

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
Advantage HD	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 burns, blisters, ulcers and permanent scarring.
Ingestion	Causes severe burning and pain in the mouth, throat and abdomen. Vomiting, diarrhea and perforation of the esophagus and stomach lining may occur.
Inhalation	This product is irritating the nose, throat and respiratory tract.

Serious Eye Damage/Irritation	Corrosive. Can cause irritation, redness and pain. May cause corneal damage and conjunctivitis.
Respiratory or Skin Sensitization	May cause skin sensitization and other allergenic responses.
Germ Cell Mutagenicity	Not expected to be mutagenic.
Reproductive Toxicity	Not expected to cause reproductive toxicity.
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 Hydroxide	Not Available	LC ₅₀ (Gambusia affinis, 96hr): 125mg/L	EC ₅₀ (Ceriodaphnia dubia, 48hr): 40.38mg/L
Sodium Hypochlorite	EC ₅₀ (Red algae, 96hr): 46mg/L	LC ₅₀ (Salmo gairdneri, 48hr): 0.07mg/L	LC ₅₀ (Daphnia magna, 48hr): 0.032mg/L
Dowfax	EC ₅₀ (Green algae, 21d): 100 mg/L	LC ₅₀ (Oncorhynchus mykiss, 96hr): 6.2 mg/L	LC ₅₀ (Daphnia magna, 48hr): 1.64 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. (Sodium 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.
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