



LAVO
11900 Boul. Saint-Jean Baptiste
Montréal, QC, H1C 2J3
CANADA
1-800-361-6898

PRODUCT: ULTRAQUA Chlorinating Liquid, NSF mul 97 mg/L

CODE: LVUQF07-0165

SECTION 01: IDENTIFICATION

Product identification..... ULTRAQUA Chlorinating Liquid, NSF mul 97 mg/L
 Product code..... LVUQ F07-0165
 Recommended use..... Swimming pool, Shock & regular treatment. Chlorinating liquid for controlling bacteria and algae in swimming pool waters. Alkaline Hypochlorite Solution is used as an oxidizing and bleaching agent. .
 Manufacturer by..... LAVO
 11900 Boul. Saint-Jean-Baptiste
 Montréal, QC, H1C 2J3
 CANADA
 1-800-361-6898
 Business hours..... 8:00AM - 4:30PM.
 24 HOUR EMERGENCY NUMBER:..... CANUTEC 24-Hour Number: 613-996-6666.

SECTION 02: HAZARD IDENTIFICATION



Hazard classification..... Serious Eye Damage/ Eye Irritation Category 1. Skin corrosion Category 1. Specific Target Organ Toxicity Single Category 3. Respiratory tract irritation Category 1.
 LABEL ELEMENTS:
 Signal word..... DANGER.
 Hazard statements..... H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H411 Toxic to aquatic life with long lasting effects.
 Precautionary statements..... P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P304+P340 IF INHALED: Remove person 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. P501 Dispose of contents/container to an approved waste disposal plant.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Sodium Hypochlorite	7681-52-9	7.0-13.0
Sodium Hydroxide	1310-73-2	0.5-1.5

SECTION 04: FIRST-AID MEASURES

Inhalation..... Remove victim to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get immediate medical attention. Call a poison center or physician.
 Eye contact..... Immediately hold eyelids open and flush with water for at least 15 minutes. Check for and remove any contact lenses if easy to do. Consult a physician.
 Skin contact..... Immediately flush skin with plenty of water for 15 minutes. Remove contaminated clothing and wash before reuse. Consult a physician.
 Ingestion..... Call IMMEDIATELY a poison centre or a doctor. Do not induce vomiting or give anything by mouth to an unconscious person. Rinse out mouth with water.
 Acute symptoms/Effects
 Eyes:..... Causes eye burns. Causes eye irritation.
 Ingestion:..... May cause severe irritation damage in the mouth, throat and stomach. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding and eventually death.
 Skin:..... Causes severe burns. Causes skin irritation. Direct skin contact may cause skin burns, deep ulcerations and possibly permanent scarring.

PRODUCT: ULTRAQUA Chlorinating Liquid, NSF mul 97 mg/L**CODE: LVUQF07-0165****SECTION 04: FIRST-AID MEASURES**

Inhalation:..... Inhalation of high concentrations of fumes or mists may cause severe irritation and corrosive damage to the nose, throat and upper respiratory tract.
 Delayed symptoms/Effects..... Prolonged or repeated contact may cause drying, cracking and de-fatting of the skin.
 General advice..... Consult a physician. Show this safety data sheet to the doctor.

SECTION 05: FIRE-FIGHTING MEASURES

Suitable extinguishing media..... Use fire-extinguishing media appropriate for surrounding materials. Use Water spray, Alcohol-resistant foam, Dry chemical or Carbon dioxide.
 Unsuitable extinguishing media..... Do not use dry chemical extinguishing agents that contain ammonium compounds.
 Special protective actions for fire-fighters..... Firefighter should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Use water to cool fire exposed containers.
 Specific hazards arising from the chemical..... May include and are not limited to: Chlorine; Hydrogen chloride gas; Oxygen; Sodium dioxides.

EXPLOSION HAZARDS:

Sensitivity to static discharge:..... No data available.
 Sensitivity to mechanical impact:..... No data available.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal precautions..... All persons dealing with clean up should wear the appropriate protective equipment including self-contained breathing apparatus.
 Protective equipment..... Use personnel protective equipment.
 Emergency procedures..... Restrict access to area until completion of clean up. Evacuate personnel to safe areas. Ensure clean up is conducted by trained personnel only. Do not touch and walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation.
 Environmental precautions..... Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Prevent further leakage or spillage if safe to do.
 Methods and materials for containment and cleaning..... Stop leak if you can do so without risk. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal. Flush with water. Do not flush into surface water or sanitary sewer system. Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required. Small spills may be absorbed with non-reactive absorbent and placed in suitable covered, labeled containers. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

SECTION 07: HANDLING AND STORAGE

Precaution for safe handling..... Use good industrial hygiene practices in handling this material. Do not eat, drink or smoke when using this product. Use in well-ventilated areas. Do not get in eyes, on skin or on clothing. Avoid inhalation of mists/vapours/fumes. Wash thoroughly after handling. Keep container tightly closed.
 Condition for safe storage..... Keep out of reach of children. Protect from sunlight. Keep container tightly closed. Store in a cool, dry and well-ventilated area. Do not store near acids.
 Storage temperature..... <30°C.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL	NIOSH
Sodium Hypochlorite	Not available	Ceiling: 2mg/m3	2mg/m3	Not available	Not available	
Sodium Hydroxide	Not available	2mg/m3	2mg/m3	Not available	Not available	
ACGIH TLV:..... American Conference of Governmental Industrial Hygienists - Threshold Limit Value.						
OSHA PEL:..... Occupational Safety and Health Administration - Permissible Exposure Limits.						
NIOSH IDLH:..... Immediately Dangerous to Life or Health.						
Appropriate engineering controls..... Use under well-ventilated conditions or with respiratory protection.						
Personal protection equipment (PPE)..... As required by employer. Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workspace.						
Eye / Face protection:..... Wear safety glasses with side shields or goggles.						
Skin protection:..... Wear protective gloves. Gloves must be inspected prior to use.						

PRODUCT: ULTRAQUA Chlorinating Liquid, NSF mul 97 mg/L

CODE: LVUQF07-0165

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection:..... Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s). Use a full face respirator with multi-purpose combination or Wear self contained breathing apparatus.

General hygiene considerations:..... Avoid breathing vapor or mist. Avoid contact with skin, eyes and clothing. Remove soiled clothing and wash it thoroughly before reuse. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Do not eat, drink, smoke or use cosmetics while working with this product.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, physical state..... Clear, pale yellow liquid. Translucent.

Colour..... Yellow to greenish.

Odour..... Chlorine odor.

Melting point / Freezing point (°C)..... -30°C to -20°C.

Boiling point (°C)..... 96 to 120°C.

Flammability..... Not applicable.

Upper/Lower Flammability or explosive ... Not applicable.

limits

Flash point (°C)..... Not applicable. Product does not sustain combustion.

Auto ignition temperature (°C)..... Not applicable.

Decomposition temperature..... Not available.

pH..... >12.5.

Viscosity..... Not available.

Solubility in water (%w/w)..... Soluble in cold water.

Partage coefficient n-octanol/water (log)... Not available.

Vapour pressure (mmHg)..... < 2.3 kPa (17.5 mm Hg @ 20°C).

Evaporation rate..... Not available.

Density..... 1.10-1.25 g/mL.

Relative Vapour Density (AIR=1)..... Heavier than air.

Refractive Index..... 7.0-8.0.

VOC %..... Not available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity..... Reacts with other chemicals such as toilet bowl cleaners, rust removers, acids, or products containing ammonia to produce hazardous irritating gases, such as chlorine and other chlorinated compounds. Contact with some reactive metals may produce flammable hydrogen gas. Corrosive to metals.

Chemical stability..... Stable under the recommended storage and handling conditions prescribed.

Possibility of hazardous reactions..... Hazardous polymerization cannot occur.

Conditions to avoid..... Avoid heat and open flame. Exposure to sunlight. Do not mix with other chemicals.

Incompatible materials..... Toilet bowl cleaners, rust removers, acids, reducing agents, other oxidizing agents and products containing ammonia. Avoid contact with the following materials: Urea, Ammonia, Amides, Amines, Nitrogen containing compounds, Combustible materials, Organic materials, Metals, Reducing materials, Hydrocarbons materials, Alcohols, Ether. Contact with Magnesium, galvanized Zinc, Tin, Chromium, Brass and Bronze generates explosive Hydrogen.

Hazardous decomposition products..... May include and are not limited to: Hydrogen chloride, Chlorine gas, Sodium dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Sodium Hypochlorite	Inhalation Rat >10.5mg/kg;	Oral Rat: 8200mg/kg; Oral Mice: 5800mg/kg; Dermal Rat:>2000 mg/kg; Dermal Rabbit >10000mg/kg;
Sodium Hydroxide	Not available	Oral Rat 300-500mg/kg;Dermal Rabbit >2000mg/kg;
Skin corrosion/irritation.....	Causes skin burns.	
Serious eye damage/Irritation....	Causes eye burns. Causes severe eye damage.	
Respiratory or skin Sensitivation.	Harmful if inhaled. May cause respiratory tract irritation or chemical burns.	
Sensitization.....	Not available.	
Mutagenicity.....	Not available.	
Reproductive toxicity.....	Not available.	
Teratogenicity.....	Not available.	
Carcinogenicity.....	No evidence of carcinogenic effects.	
Target organs.....	Contains material which may cause damage to the following organs:upper respiratory tract, skin, eye, lens of cornea and stomach.	

PRODUCT: ULTRAQUA Chlorinating Liquid, NSF mul 97 mg/L**CODE: LVUQF07-0165****SECTION 11: TOXICOLOGICAL INFORMATION**

Specific target organs toxicity - Single Not available.
 exposure
 Specific target organs toxicity - Repeated Not available.
 exposure
 Aspiration hazard..... Not available.
 Symptoms related to the physical, chemical Symptoms may include stinging, tearing, redness, swelling and blurred vision. Permanent
 and toxicological characteristics eye damage including blindness could result. Burning sensation, Cough, Wheezing,
 Laryngitis, Shortness of breath, Spasm, Inflammation and Edema of the Larynx,
 Inflammation and Edema of the bronchi and Pneumony edema.
 Chronic effects on humans..... Safe handling of this material on a long term basis should emphasize the prevention of all
 contact with this material to avoid any effects from repetitive acute exposures.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity data, Sodium Hypochlorite:..... Acute 96Hrs LC50 Rainbow trout: 0.030 - 0.070 mg/L.
 Acute 48Hrs LC50 Daphnia magna:0.032 - 0.036 mg/L.
 Ecotoxicity data, Sodium Hydroxide:..... Acute 96Hrs LC50 fish Guppy Poecilia reticulata:196 mg/L
 Chronic 96Hrs NOEC fish Guppy Poecilia reticulata:56 mg/L.
 Mobility in soil..... Not available.
 Persistence and degradability..... Not available.
 Bioaccumulation potency..... Not available.
 Other adverse effects..... Very toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods..... Do not empty into drains, dispose of this material and its container at hazardous or special
 waste collection point. Observe all local, provincial/state and federal environmental
 regulations.

SECTION 14: TRANSPORT INFORMATION

TDG Classification..... Limited quantity exception per TDG Regulations Part 1.17(2) -Containers not more than 5L.
 UN1791 Class 8 PG III HYPOCHLORITE SOLUTION more than 7% available chlorine.
 DOT US: Department of Transport US..... Limited Quantity 5L. UN1791 Class 8 PG III HYPOCHLORITE SOLUTION more than 7%
 available chlorine.
 IMDG: International Maritime Dangerous . UN1791 Class 8 PG III HYPOCHLORITE SOLUTION more than 7% available chlorine.
 Goods
 IATA: International Air Transportation UN1791 Class 8 PG III HYPOCHLORITE SOLUTION more than 7% available chlorine.
 Association

SECTION 15: REGULATORY INFORMATION

WHMIS Classification..... This product has been classified in accordance with the hazard criteria of the Controlled
 Products Regulations and this document contains all the information required by the
 Controlled Products Regulations. Class E: Corrosive Material. Class C: Oxidizing Material.
 Class D1B: Materials Causing Immediate/Serious Effects - Toxic Material. Class D-2B:
 Toxic material Causing other toxic effects.

SECTION 16: OTHER INFORMATION

POOL..... F0007-0165.
 Disclaimer:..... The information in the Safety Data Sheet is offered for your consideration and guidance
 when exposed to this product. LAVO expressly disclaims all expressed or implied
 warranties for the accuracy or completeness of the data contained herein and assumes no
 responsibilities for any involved damages by above data. Products users have to do their
 own tests to establish the applicability of the information for a specific use of the product.
 SDS data does not apply to use with any other product or in any other process.
 Prepared by: Regulatory Affairs
 Preparation date..... 2021-03-11