

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER

PRODUCT NAME: HORTI-KLOR

OTHER MEANS OF IDENTIFICATION: High Foaming Alkaline Detergent

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

PRODUCT USE STATEMENT: Industrial Cleaning Agent

USES ADVISED AGAINST: Use only as stated on label.

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Pace 49 Inc.

1597 Derwent Way, Delta B.C., V3M 6K8 CANADA

Phone (800) 799-6211 | www.pace49.com

EMERGENCY TELEPHONE NUMBER

24 Hour Emergency Phone Number (800) 228-5635x059

2. HAZARDS IDENTIFICATION

CLASSIFICATION

Acute toxicity - Oral	Category 5
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

LABEL ELEMENTS

EMERGENCY OVERVIEW

DANGER

May be harmful if swallowed

Causes severe skin burns and eye damage

Harmful to aquatic life with long lasting effects

Precautionary Statements - Prevention

- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid release to the environment

Precautionary Statements - Response

- Specific Treatment (See Section 4 on the SDS)
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

Precautionary Statements - Storage

- Store locked up

Precautionary Statements - Disposal

- Dispose of contents/container to an approved waste disposal plant

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

OTHER INFORMATION

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Sodium Hydroxide	1310-73-2	3-7	*
Sodium Dodecylbenzene Sulfonate	25155-30-0	3-7	*
Tetrasodium EDTA	64-02-8	1-5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret. See sections 8 and 11 for additional information.

4. FIRST AID MEASURES

FIRST AID MEASURES

GENERAL ADVICE: Immediate medical attention is required.

SKIN CONTACT: Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. For minor skin contact, avoid spreading material on unaffected skin. For severe burns, immediate medical attention is required.

EYE CONTACT: Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

INHALATION: Remove to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

INGESTION: Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

SELF-PROTECTION OF THE FIRST AIDER: Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

SYMPTOMS: Any additional important symptoms and effects are described in Section 11: Toxicology Information.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

NOTE TO PHYSICIANS: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

PERSONAL PRECAUTIONS: Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

ENVIRONMENTAL PRECAUTIONS

ENVIRONMENTAL PRECAUTIONS: Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

METHODS FOR CONTAINMENT: Prevent further leakage or spillage if safe to do so.

METHODS FOR CLEANING UP: Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

ADVICE ON SAFE HANDLING: Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

STORAGE CONDITIONS: Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

INCOMPATIBLE MATERIALS

Incompatible with strong acids and bases. Incompatible with oxidizing agents. Strong acids. Aluminum.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

EXPOSURE GUIDELINES: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide 1310-73-2	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³ (vacated) Ceiling: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

NIOSH IDLH Immediately Dangerous to Life or Health

OTHER INFORMATION: Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

APPROPRIATE ENGINEERING CONTROLS

ENGINEERING CONTROLS: Showers, Eyewash stations & Ventilation systems

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: Tight sealing safety goggles. Face protection shield.

SKIN AND BODY PROTECTION: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

RESPIRATORY PROTECTION: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

GENERAL HYGIENE: When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

APPEARANCE: Clear

COLOR: Amber

ODOR: Slight

ODOR THRESHOLD: No Information available

PROPERTY	VALUES
pH	13.0 +
Specific Gravity	1.14
Viscosity	Water Thin
Melting point/freezing point	No Information available
Flash point	None
Boiling point / boiling range	No Information available
Evaporation rate	Same as water
Flammability (solid, gas)	
Flammability Limits in Air	
Upper flammability limit	No Information available
Lower flammability limit	No Information available

Vapor pressure No Information available
 Vapor density No Information available
 Water solubility Soluble in water
 Partition coefficient No Information available
 Autoignition temperature No Information available
 Decomposition temperature No Information available

OTHER INFORMATION

Density Lbs/Gal 9.32
 VOC Content (%) NO VOC

10. STABILITY AND REACTIVITY

REACTIVITY: No data available

STABILITY: Stable under recommended storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:
 None under normal processing.

CONDITIONS TO AVOID: Exposure to air or moisture over prolonged periods.

INCOMPATIBLE MATERIALS: Incompatible with strong acids and bases. Incompatible with oxidizing agents. Strong acids. Aluminum.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

INFORMATION ON LIKELY ROUTES OF EXPOSURE

PRODUCT INFORMATION: The primary effects and toxicity of this material are due to its corrosive nature.

INHALATION: Causes burns.

EYE CONTACT: Corrosive to the eyes and may cause severe damage including blindness.

SKIN CONTACT: The product causes burns of eyes, skin and mucous membranes.

INGESTION: Causes burns. May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide 1310-73-2	-	= 1350 mg/kg (Rabbit)	-
Sodium Dodecylbenzene Sulfonate 25155-30-0	= 500 mg/kg (Rat) = 438 mg/kg (Rat)	-	-
Sodium Chlorite 7758-19-2	= 165 mg/kg (Rat)	= 1072 mg/kg (Rabbit)	= 230 mg/m ³ (Rat) 4 h

INFORMATION ON TOXICOLOGICAL EFFECTS

SYMPTOMS: No Information available.

DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE

CORROSIVITY: Causes burns. Extremely corrosive and destructive to tissue. Risk of serious damage to eyes.

SENSITIZATION: No Information available.

GERM CELL MUTAGENICITY: No Information available.

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

IARC (International Agency for Research on Cancer)
 Group 3 -Not classifiable as a human carcinogen

REPRODUCTIVE TOXICITY: No Information available.

STOT - SINGLE EXPOSURE: No Information available.

STOT - REPEATED EXPOSURE: No Information available.

CHRONIC TOXICITY: Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects.

TARGET ORGAN EFFECTS: EYES, Respiratory system, Skin.

ASPIRATION HAZARD: No Information available.

NUMERICAL MEASURES OF TOXICITY - PRODUCT INFORMATION

UNKNOWN ACUTE TOXICITY: 0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

12. ECOLOGICAL INFORMATION

ECOTOXICITY

6.42% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-
Sodium Dodecylbenzene Sulfonate 25155-30-0	-	10.8: 96 h Oncorhynchus mykiss mg/L LC50 static	-
Tetrasodium EDTA 64-02-8	1.01: 72 h Desmodemus subspicatus mg/L EC50	59.8: 96 h Pimephales promelas mg/L LC50 static 41: 96 h Lepomis macrochirus mg/L LC50 static	610: 24 h Daphnia magna mg/L EC50

PERSISTENCE AND DEGRADABILITY: No Information available.

BIOACCUMULATION: No Information available.

OTHER ADVERSE EFFECTS: No Information available.

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

DISPOSAL OF WASTES: Disposal should be in accordance with applicable regional, national and local laws and regulations.

CONTAMINATED PACKAGING: Do not reuse container.

US EPA WASTE NUMBER: D002

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	Chemical Name California Hazardous Waste Status
Sodium Hydroxide 1310-73-2	Toxic, Corrosive

14. TRANSPORT INFORMATION

Note: The basic description below is specific to the container size. This information is provided for at a glance DOT information. Please refer to the container and/or shipping papers for the appropriate shipping description before tendering this material for shipment. For additional information, please contact the distributor listed in section 1 of this SDS.

LAND TRANSPORT: (USDOT)
Inner Packaging Not Over 1.0 L: LTD QTY (LTDY)



Hazard Class: 8
 Packing Group: II
 ID Number: UN1824
 Hazard Label: 8
 Proper Shipping Name: UN1824, SODIUM HYDROXIDE SOLUTION, 8, II (HM-CS21)

AIR TRANSPORT: (IATA/ICAO)
5 x 0.1 L Per Package: LTD QTY (LTDY)



For packages greater than 5 x 0.1 L refer to IATA shipping guidelines and above hazard class information.

15. REGULATORY INFORMATION

INTERNATIONAL INVENTORIES

TSCA: Complies
 TSCA: United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL: Complies
 Substances Control

DSL/NDSL: Canadian Domestic Substances List/ Non-Domestic Substances List

US FEDERAL REGULATIONS

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Sulfuric Acid - 7664-93-9	1.0

SARA 311/312 HAZARD CATEGORIES

Acute health hazard Yes
 Chronic Health Hazard Yes
 Fire hazard No
 Reactive Hazard No
 Sudden release of pressure hazard No

CWA (CLEAN WATER ACT)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	Reportable Quantities	Toxic Pollutants	Priority Pollutants	Hazardous Substances
Sodium Hydroxide 1310-73-2	1000 lb	-	-	X
Sodium Dodecylbenzene Sulfonate 25155-30-0	1000 lb	-	-	X

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	CERCLA/ SARA RQ	Reportable Quantity (RQ)
Sodium Hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Sodium Dodecylbenzene Sulfonate 25155-30-0	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

CALIFORNIA PROPOSITION 65

This product does not contain any Proposition 65 chemicals.

U.S. STATE RIGHT-TO-KNOW REGULATIONS

Chemical Name	NJ	MA	PA
Sodium Hydroxide 1310-73-2	X	X	X
Sodium Dodecylbenzene Sulfonate 25155-30-0	X	X	X
Sodium Chlorite 7758-19-2	X	X	X

16. OTHER INFORMATION

HMIS

Health hazards	Flammability	Physical hazards	Personal protection
3	0	0	B

PREPARED BY: Regulatory Department, Manufacturing and Shipping Facility

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.