

HORTI-KLOR



1. Product & Company Identification

Product Name: HORTI-KLOR
Other means of identification: HORTI-KLOR

Recommended use of the chemical and restrictions on use

Recommended Use: Heavy-duty, chlorinated greenhouse cleaner

Restrictions on Use: For Food Plant, Industrial and Institutional use only

Safety Data Sheet Supplier

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Phone: (800) 799-6211 Website: pacesolutions.com
Email: info@pacesolutions.com

EMERGENCY TELEPHONE NUMBER

24 Hour Emergency Phone Number:
Transport Emergencies: Canutec 613-996-6666
Emergency Response Services: Chemtrec 800-424-9300

2. Hazards Identification



Classification	Hazard Category
Corrosive to Metals	Category 1
Skin corrosion/ irritation	Category 1
Eye damage/ irritation	Category 1
Specific target organ toxicity - repeated exposure	Category 2

Signal Word:

Danger

Hazard statements:

- + H290 May be corrosive to metals.
- + H314 Causes severe skin burns and eye damage.
- + H373 May cause damage to respiratory system and spleen through prolonged or repeated exposure.

Precautionary Statements - Prevention

- + P234 Keep only in original packaging.
- + P260 Do not breathe dusts or mists.
- + P264 Wash hands and any affected area thoroughly after handling.
- + P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Precautionary Statements - Response

- + P390 Absorb spillage to prevent material-damage.
- + P302 + P361 + P354 IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
- + P363 Wash contaminated clothing before reuse.
- + P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- + P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- + P301 + P304 + P302 + P316 IF SWALLOWED, INHALED OR ON SKIN: Get emergency medical help immediately.
- + P305 + P354 + P338 + P317 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help.

- + P319 Get medical help if you feel unwell.

Precautionary Statements - Storage

- + P405 Store locked up.

Precautionary Statements - Disposal

- + P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/Information on Ingredients

Chemical Name	CAS No.	Weight %
Sodium hydroxide	1310-73-2	5-10
Sodium dodecylbenzene sulfonate	25155-30-0	5-10
Lauramine oxide	1643-20-5	1-5
Tetrasodium ethylene-diaminetetraacetate	1964-02-08	1-5
.beta.-alanine, N-(2-carboxyethyl)-N-[3-(decyloxy)propyl]-, monosodium salt	64972-19-6	1-5
Sodium xylenesulfonate	1300-72-7	1-5
Sodium chlorite	7758-19-2	1-5

4. First Aid Measures

GENERAL ADVICE: If symptoms persist, call a physician.

SKIN CONTACT: Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

INHALATION: Remove to fresh air. If symptoms persist, call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors or decomposition products.

INGESTION: Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

SELF-PROTECTION OF THE FIRST AIDER: Use personal protective equipment as required.

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: Treat symptomatically.

5. Fire-Fighting Measures

SUITABLE EXTINGUISHING MEDIA: Use dry chemical. Carbon dioxide (CO₂). Water spray (fog). Alcohol resistant foam.

UNSUITABLE EXTINGUISHING MEDIA: Do not use a solid water stream as it may scatter and spread fire.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Keep product and empty container away from heat and sources of ignition. Risk of ignition.

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.

UNUSUAL FIRE/EXPLOSION HAZARDS: Contact with reactive metals may produce flammable/explosive hydrogen gas. Explosive and toxic chlorine dioxide gas will be generated on contact with acids or chlorine.

HAZARDOUS DECOMPOSITION PRODUCTS: Chlorine. Oxides of sodium.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

ENVIRONMENTAL PRECAUTIONS: Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. 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: Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Prevent product from entering drains. Dam up. Take precautionary measures against static discharges.

7. Handling & Storage

Precautions for safe handling

Use good industrial hygiene. Do not get in eyes, on skin or on clothing. Avoid breathing dust. Store in a cool, dry place away from incompatibles. Keep container closed when not in use. Keep out of reach of children. Store at temperatures below 30 °C and above 5 °C. Do not store in metal containers. Adding this product to water will result in exothermic reaction, where heat will be released. Add this product to water slowly with mixing, do not add water to this product.

8. Exposure Controls/Personal Protection

Sodium Hydroxide CAS#1310-73-2

Type of Listing	Exposure Limit
British Columbia	STEL/C: 2 mg/m ³
Alberta	
Manitoba	
Saskatchewan	8 hr C: 2 mg/m ³ , 15 min C: 2 mg/m ³
Ontario	STEL/C: 2 mg/m ³
ACGIH	TLV: 2 mg/m ³

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: Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

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. Regular cleaning of equipment, work area and clothing is recommended.

9. Physical & Chemical Properties

Properties	Values
Physical State	Liquid
Colour	Clear, colourless to pale yellow
Odour	Mild odour. No added fragrance.
Odour threshold	No information available
pH	>13
Specific gravity	1.12 @ 20 °C
Viscosity	Thin like water
Melting point/ freezing point	No information available
Flash point	>93.3 °C Closed Cup
Boiling point / boiling range	100 °C approximate
Evaporation rate	No information available
Flammability	Not flammable, not combustible.
Upper flammability limit in air	No information available
Lower flammability limit in air	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
VOC content (%)	No information available

10. Stability & Reactivity

REACTIVITY: No data available

STABILITY: Stable under recommended storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: None under normal processing.

CONDITIONS TO AVOID: Temperatures above 30 °C and below 5 °C. Direct sunlight.

INCOMPATIBLE MATERIALS: Strong acids, oxidizing agents, reducing agents. Metals.

HAZARDOUS DECOMPOSITION PRODUCTS: Chlorine. Oxides of sodium.

11. Toxicological Information

Acute Toxicity Estimates

Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
>2000 mg/kg	>7000 mg/kg	No data
7% of the mixture consists of ingredient(s) of unknown acute oral toxicity.	22% of the mixture consists of ingredient(s) of unknown acute dermal toxicity.	

Information on likely routes of exposure

INHALATION: Might cause serious irritation to respiratory track.

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 cause irritation and nausea.

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: Data available indicates no potential risk.

GERM CELL MUTAGENICITY: Data available indicates no potential risk.

CARCINOGENICITY: Data available indicates no potential risk.

REPRODUCTIVE TOXICITY: Data available indicates no potential risk.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE: Data available indicates no potential risk.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE: May cause damage to spleen through prolonged or repeated exposure.

ASPIRATION HAZARD: Data available indicates no potential risk.

12. Ecological Information

Ecotoxicity

7.78% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

PERSISTENCE AND DEGRADABILITY: Persistence.

BIOACCUMULATION: Not expected to be bioaccumulative.

13. Disposal Considerations

Waste treatment methods

Reuse if possible. Otherwise dispose recovered material in accordance with all local, Provincial or Federal regulations.

14. Transport Information

Canadian Transportation of Dangerous Goods:

UN1824 SODIUM HYDROXIDE SOLUTION, Class 8, Packing Group II

ENVIRONMENT HAZARDS: Not considered as marine pollutant.

ADDITIONAL INFORMATION: Explosive Limit and Limited Quantity Index: 1 L

Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index: 1 L

15. Regulatory Information

International Inventories

TSCA: Complies DSL/NDSL: Complies
NPRI: None of the components are listed.

16. Other Information

Acronym List

ACGIH	American Conference of Governmental Industrial Hygienists
C	Ceiling Limit - The maximum exposure limit
CAS	Chemical Abstracts Service
CFR	Code of Federal Regulations
DSL/NDSL	Domestic Substances List/ Non-domestic Substance List
EC50	Half maximal effective concentration
IARC	International Agency for Research on Cancer
IDLH	Immediately Dangerous to Life or Health
LC50	Lethal concentration, 50%
LD50	Lethal dose, 50%
NIOSH	The National Institute for Occupational Safety and Health
N.O.S.	Not Otherwise Specified
NPRI	National Pollutant Release Inventory
NTP	National Toxicology Program
OHSR	Occupational Health & Safety Regulation
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PNOC	Particulates not otherwise classified
PMCC	Pensky-Martens Closed Cup
POW	Partition Coefficient Octanol: Water
REL	Recommended Exposure Limit
SDS	Safety Data Sheets
STEL	Short-Term Exposure Limit
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act Chemical Substance
TWA	Time-Weighted Average

PREPARED BY: Regulatory Department

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