

KleenGrow™

1. Product & Company Identification

Product Name: KleenGrow
Other means of identification: DDAC, Quaternary Ammonium

Recommended use of the chemical and restrictions on use
Recommended Use: Disinfectant
Uses advised against: Use only as stated on label.

Safety Data Sheet Supplier

Pace 49 Inc.
1597 Derwent Way
Delta B.C., V3M 6K8 Canada
Phone: (800) 799-6211 Website: pace49.com

EMERGENCY TELEPHONE NUMBER

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

2. Hazards Identification

Classification Label Elements

Emergency Overview

Danger

Hazard statements:

Flammable liquid and vapor

Causes severe skin burns and eye damage



Skin corrosion/irritation Category 1

Serious eye damage/eye irritation Category 1

Flammable liquids Category 3

Precautionary Statements - Prevention

- Wash hands and any affected area thoroughly after handling.
- Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Precautionary Statements - Response

- IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help.
- IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
- Wash contaminated clothing before reuse.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF exposed or concerned: Get emergency medical help immediately.

Precautionary Statements - Storage

- Store locked up.
- Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

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

Note: Flammable liquid and vapour for open containers per GHS. This material is not classified as flammable for transportation and warehousing as it does not sustain combustion according to ASTM D4206.

3. Composition/Information on Ingredients

Chemical Name	CAS No.	Weight (%)	Trade Secret
2-Propanol	67-63-0	7-13	*
N-decyl-N,Ndimethyl-yl-,Chloride	7173-51-5	7-13	*

*Exact percentage (concentration) of composition withheld as a trade secret.

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. 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), or 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.

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. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges.

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

ADVICE ON SAFE HANDLING: Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/ necessary action to avoid static electricity discharge (which might cause ignition of organic vapors.)

Conditions for safe storage, including any incompatibilities

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

Incompatible materials

None known based on information supplied.

8. Exposure Controls/Personal Protection

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Propanol 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m3 Vacated TWA: 400 ppm TWA: 980 mg/m3 STEL: 500 ppm STEL: 1225 mg/m3	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m3 STEL: 500 ppm STEL: 1225 mg/m3
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m3 Vacated TWA: 1000 ppm TWA: 1900 mg/m3	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m3

limits established by the region specific regulatory bodies. 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: No special technical protective measures are necessary.
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.

Do not enter or allow worker entry into treated areas during restricted entry interval (REI) of 48 hours. The REI when the product is applied by intermittent chemigation is 12 hours. An REI is not required when using the product for end of season irrigation line cleaning, continuous chemigation and microbial control. (Note: The REI does not apply to hard surface disinfection.)

9. Physical & Chemical Properties

Information on basic physical and chemical properties

PHYSICAL STATE: Liquid
APPEARANCE: Clear
COLOR: Colorless
ODOR: Slight
ODOR THRESHOLD: No Information available

PROPERTY

PROPERTY	VALUES
pH	6.5 - 8.5
Specific Gravity	0.98 @ 20°C
Viscosity	Water Thin
Melting point/freezing point	No Information available
Flash point	39 °C* 102 °F*

*Flammable liquid and vapour for open containers per GHS.

This material is not classified as flammable for transportation and warehousing as it does not sustain combustion according to ASTM D4206

Boiling point / boiling range	No Information available
Evaporation rate	Same as water
Flammability	Flammable
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	7.9
VOC Content (%)	10.94 % VOC

10. Stability & Reactivity

REACTIVITY: No data available
 STABILITY: Stable under recommended storage conditions.
 POSSIBILITY OF HAZARDOUS REACTIONS:
 None under normal processing.
 CONDITIONS TO AVOID: Heat, flames and sparks.
 INCOMPATIBLE MATERIALS: None known based on information supplied.
 HAZARDOUS DECOMPOSITION PRODUCTS: None known based on information supplied.

11. Toxicological Information

Information on likely routes of exposure

INHALATION: May cause mild irritation.
 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
2-Propanol 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4h
Ethanol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4h

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. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
2-Propanol 67-63-0	-	Group 3	-	X

ACGIH (American Conference of Governmental Industrial Hygienists), A3 - Animal Carcinogen, IARC (International Agency for Research on Cancer), Group 1 - Carcinogenic to Humans, Not classifiable as a human carcinogen, NTP (National Toxicology Program), Known - Known Carcinogen, OSHA (Occupational Safety and Health Administration of the US Department of Labor), X - Present
 REPRODUCTIVE TOXICITY: No Information available.
 STOT - SINGLE EXPOSURE: No Information available.
 STOT - REPEATED EXPOSURE: No Information available.
 CHRONIC TOXICITY: Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage. Avoid repeated exposure.
 TARGET ORGAN EFFECTS: EYES, Respiratory system, Skin.
 ASPIRATION HAZARD: No Information available.

Numerical measures of toxicity - Product Information

UNKNOWN ACUTE TOXICITY: 0.28% 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

PERSISTENCE AND DEGRADABILITY: No Information available.
 BIOACCUMULATION: No Information available.

Chemical Name	Partition Coefficient
2-Propanol 67-63-0	0.05

OTHER ADVERSE EFFECTS: This product is toxic to fish and aquatic invertebrates.

Do not discharge effluent containing this product into the environment without control.

13. Disposal Considerations

Waste treatment methods

DISPOSAL OF WASTES: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes can not be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
 Container Disposal: Non-refillable container. Do Not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local, by burning. If burned, stay out of smoke.
 CONTAMINATED PACKAGING: Do not reuse container.
 US EPA WASTE NUMBER: D001
 This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
2-Propanol 67-63-0	Toxic Ignitable

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.

Flammable liquid and vapour for open containers per GHS. This material is not classified as flammable for transportation and warehousing as it does not sustain combustion according to ASTM D4206

U.S. Department of Transportation (USDOT)

LAND TRANSPORT: 4X1 GALLON CASE: LTD QTY (LTDY)
 Hazard Class: 8
 Packing Group: III
 UN1760 CORROSIVE LIQUID, N.O.S. (Contains Isopropanol and Quaternary Ammonium compounds)
 AIR TRANSPORT: (IATA/ ICAO) 2X0.5L
 Per Package: LTD QTY (LTDY)
 For packages greater than 2x0.5L refer to IATA shipping guidelines and above hazard class information.

15. Regulatory Information

International Inventories

TSCA: Complies DSL/NDSL: Complies
 TSCA: United States Toxic Substances Control Act Section 8(b) Inventory
 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 (%)
2-Propanol 67-63-0	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
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)

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

California Proposition 65

This product has been evaluated and does not require warning labeling under California Proposition 65.

Chemical Name	California Proposition 65
Ethanol 64-17-5	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical Name	NJ	MA	PA
2-Propanol 67-63-0	X	X	X
Ethanol 64-17-5	X	X	X

16. Other Information

PREPARED BY: Regulatory Department, Manufacturing and Shipping Facility

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.