

MATERIAL SAFETY DATA SHEET

EMERGENCY TELEPHONE: 800-424-9300 (Chemtrec)

Health : 3
Flammability : 3
Reactivity : 0



PROGREEN INTERNATIONAL, LLC
18601 Hatteras St, #248
Tarzana, CA 91356, USA

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MATERIAL	DATE ISSUED	DOT HAZARD CLASSIFICATION
PROGREEN DEZ-8 (concentrate)	9/27/2020	8(3), PG II
		DOT SHIPPING NAME
		Disinfectant, Liquid, Corrosive, N.O.S.
		DOT LABEL Corrosive
CAS. NO. Mixture		IMO SHIPPING NAME
		Corrosive Liquid, Flammable, N.O.S.
FORMULA Mixture		Marine Pollutant
CHEMICAL NAME (Actives): N,N-Didecyl-N,N-dimethylammonium chloride and Alkyl(50%, C ₁₄ 40%, C ₁₂ ; 10%, C ₁₆)dimethylbenzylammonium chloride		

***** I - INGREDIENTS *****

	APPROXIMATE WEIGHT %	TWA/TLV
N,N-Didecyl-N,N-dimethylammonium chloride (CAS No. 7173-51-5)	48	None established
N-Alkyl(C ₁₂₋₁₆)-N,N-dimethylbenzylammonium chloride (CAS No. 68424-85-1)	32	None established
Isopropyl (CAS No. 67-63-0)	3.5	1000 ppm (OSHA-PEL} 1000 ppm (ACGIH-TWA)
Water (CAS No. 7732-18-5)	16.5	None established

***** II - PHYSICAL AND CHEMICAL PROPERTIES *****

APPEARANCE Colorless to pale yellow liquid	pH 6 to 8 (10% active solution)	ODOR
VISCOSITY Not known	Mild isopropyl-like	
BOILING POINT Not known	MELTING OR FREEZING POINT -20°C	
VAPOR DENSITY (Air=1) Not known	VAPOR PRESSURE (mm Hg) Not known	
PERCENT VOLATILE (by weight) 20	SPECIFIC GRAVITY (Water=1) 0.90-0.91 @ 25 °C	
EVAPORATION RATE (Butyl Acetate=1) Not known	SOLUBILITY IN WATER Soluble	

***** III - FIRE AND EXPLOSION INFORMATION *****

FLASH POINT 104°F (Tagliabue c.c)	AUTO IGNITION TEMPERATURE	Not known
LOWER EXPLOSION LIMIT (%) Not known	UPPER EXPLOSION LIMIT (%)	Not known
EXTINGUISHING MEDIA FOAM	ALCOHOL FOAM X CO ₂ X	
DRY CHEMICAL X	WATER X OTHER	

The information provided herein is compiled from internal reports and data from professional publications. IT IS FURNISHED WITHOUT WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. It is intended to assist in evaluating the suitability and proper use of the material in manufacturing and in the development and implementation of safety precautions and procedures.

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***** IV - HEALTH EFFECTS INFORMATION *****

If inhaled, remove from area to fresh air. Get immediate medical attention. If not breathing, clear airway and start artificial respiration. If victim is having trouble breathing, give supplemental oxygen, if available.

CHEMICALS LISTED AS CARCINOGEN BY:

NATIONAL TOXICOLOGY PROGRAM -	No
I.A.R.C. MONOGRAPHS -	No
OSHA -	No

NOTE TO PHYSICIAN:

Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, as well as oxygen and measures to support breathing manually or mechanically may be needed.

***** V - REACTIVITY INFORMATION *****

STABILITY:	STABLE	X	CONDITIONS TO AVOID
	UNSTABLE		None known

***** V - REACTIVITY INFORMATION (continued) *****

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition may produce toxic vapors/fumes of hydrogen chloride, amines and other organic materials, and oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION

MAY OCCUR	WILL NOT OCCUR	X	CONDITIONS TO AVOID
			None known

INCOMPATIBILITY (MATERIALS TO AVOID)

WATER	OTHER	X	Strong oxidizing or reducing agents.
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***** VI - SPILL AND DISPOSAL INFORMATION *****

STEPS TO BE TAKEN IN CASE OF MATERIAL SPILL OR RELEASE

DANGER! Corrosive and flammable material. Remove all sources of ignition and ground all equipment before beginning cleanup. Floors may become slippery. Wear appropriate protective equipment and NIOSH approved respirator where mists or vapors of unknown concentrations may be generated (self-contained breathing apparatus preferred).

Dike and contain spill with inert material (sand, earth, etc.) and transfer the liquid and solid separately to containers for recovery or disposal. Keep spill out of sewers and open bodies of water.

***** VI - SPILL AND DISPOSAL INFORMATION *****

WASTE DISPOSAL METHODS

Dispose of in compliance with all Federal, state and local laws and regulations. Incineration is the preferred method.

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CONTAINER DISPOSAL

Triple rinse (or equivalent). Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerate if allowed by state and local authorities. If burned, stay out of smoke.

***** VII - PERSONAL PROTECTION INFORMATION *****

ENGINEERING CONTROLS

In processes where mists or vapors may be generated, proper ventilation must be provided in accordance with good ventilation practices.

RESPIRATORY PROTECTION

In processes where mists or vapors may be generated, a NIOSH approved respirator is advised in the absence of proper environmental controls.

PROTECTIVE GLOVES

Rubber or neoprene, to prevent skin contact.

EYE PROTECTION

Wear chemical splash goggles where there is a potential for eye contact. Use safety glasses with side shields under normal use conditions.

OTHER PROTECTIVE EQUIPMENT

Eye wash; safety shower; protective clothing (long sleeves, coveralls or other, as appropriate), when needed, to prevent skin contact.

***** VIII - STORAGE AND HANDLING *****

PRECAUTIONS FOR STORAGE AND HANDLING :

Maximum storage temperature: 140 °F. Store containers in compliance with the most recent NFPA code (NFPA 30). Ground all containers prior to pouring. Keep containers closed until used. Do not contaminate drinking water, food or feed by storage or disposal.

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***** IX - TOXICOLOGY INFORMATION *****

TOXICITY

No toxicity or ecotoxicity information is available for this specific material. The toxicity information provided is for a closely related material(s) and components of this formulation.

ACUTE

For (80% active component formulation containing the C8-10 Dialkyl dimethylammonium chloride in place of the C10 Dialkyl dimethylammonium chloride)

- oral LD₅₀ (rat): 366 mg/kg
- dermal LD₅₀ (rat): 204 mg/kg; 645 mg/kg (2 tests)
- skin Irritation (rabbit): Severe irritation that did not clear by day 7, post dose.
- skin corrosivity (DOT - rabbit): Corrosive
- eye Irritation (rabbit): Severe irritation without washing that did not clear by day 7, post dose.
- skin sensitization (guinea pig - Buehler test): Not a sensitizer using a solution containing 0.2% active components.

For Alkyldimethylbenzylammonium chloride:

- Photoallergenicity (guinea pig): Not photoallergenic.

GENOTOXICITY/MUTAGENICITY

For Didecyldimethylammonium chloride:

- Ames test (Salmonella typhimurium): Not mutagenic with or without metabolic activation.
- sister chromatid exchange (in vitro - CHO cells): Not clastogenic with or without metabolic activation.
- bone marrow cytogenetic assay (in vivo - rat): No evidence of chromosomal damage in bone marrow following treatment at 600 mg/kg.

For Alkyldimethylbenzylammonium chloride:

- unscheduled DNA synthesis (in vitro - rat hepatocytes): Not mutagenic with or without metabolic activation.
- HGPRT (in vitro - CHO cells): Not mutagenic with or without metabolic activation.

REPRODUCTIVE/DEVELOPMENTAL

For Didecyldimethylammonium chloride:

- developmental (rat - oral): No evidence of developmental toxicity effects was observed at exposure doses ranging from 10-50 mg/kg/day administered from day 6 through 18 of gestation.

For Alkyldimethylbenzylammonium chloride:

- developmental (rat - feeding): NOAEL - 1000 ppm. Neonatal and maternal adverse effects observed in animals dosed at 2000 ppm.

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***** IX - TOXICOLOGY INFORMATION (continued) *****

REPRODUCTIVE/DEVELOPMENTAL

For mixture Didecyldimethylammonium chloride:

- developmental (rat - oral): No evidence of developmental toxicity effects was observed at exposure doses ranging from 10-50 mg/kg/day administered from day 6 through 18 of gestation.

For mixture Alkyldimethylbenzylammonium chloride:

- developmental (rat - feeding): NOAEL - 1000 ppm. Neonatal and maternal adverse effects observed in animals dosed at 2000 ppm.

SUBCHRONIC

For mixture

Alkyldimethylbenzylammonium chloride:

- oral toxicity (rat - 90-day): No systemic effects or target organ effects were observed at dosage level of approximately 500 ppm. Adverse effects were noted at higher dosage levels of 1000 and 4000 ppm.

- dermal toxicity (rat - 90-day): No systemic toxicity effects were noted in any of the exposure groups, however, slight irritation was observed in all treatment groups up to 20 mg/kg/day.

ECOTOXICITY

- LC₅₀ (bluegill sunfish - 96 hours): 0.52 mg/l

- LC₅₀ (rainbow trout - 96 hours): 0.93 mg/l

For Didecyldimethylammonium chloride:

- EC₅₀ (Daphnia magna - 48 hours): 0.058 mg/l

***** X - MISCELLANEOUS AND REGULATORY INFORMATION *****

CANADIAN WORKPLACE HAZARDOUS MATERIAL INFORMATION SYSTEM (WHMIS) CLASSIFICATION

Class E, B3

DOMESTIC SUBSTANCE LIST (DSL) STATUS

The components of this material are currently listed on the Canadian DSL.

TRANSPORT OF DANGEROUS GOODS (TDG)

Disinfectants Corrosive Liquid N.O.S.

Class 8(3)

UN 2920 PGII

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***** X - MISCELLANEOUS AND REGULATORY INFORMATION (continued) *****
FEDERAL LEVEL REGULATIONS:

TOXIC SUBSTANCES CONTROL ACT (TSCA INVENTORY) STATUS:

This product is currently listed on U.S. EPA TSCA 8(b) inventory list.

TSCA Section 12(b) Export Notification

Components present in this product which, if exported, could require either annual or one-time reporting under this regulation are as follows:

Chemical Name	Typical Maximum	CAS Number	Concentration
EXEMPT - FIFRA registered product			

EPA REGULATION ON PESTICIDES

This product is an EPA FIFRA registered pesticide, EPA registration number 47371-42-86541. This product can only be used commercially in the EPA FIFRA registered application(s) noted on the product label.

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of

1980 requires notification of the National Response Center (Telephone 800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQs) listed in 40 CFR 302.4:

Chemical Name	Typical Maximum	CAS Number	Concentration
None known			

SARA Title III, Sections 302/304 (Superfund Amendments and Reauthorization act of 1986) - This act requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and release Reportable Quantities (RQs) listed for the Components in 40 CFR 355:

Chemical Name	Typical Maximum	CAS Number	Concentration
None known			

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***** X - MISCELLANEOUS AND REGULATORY INFORMATION (continued) *****

SARA Title III Sections 311/312 - This act requires reporting under the Community Right-to-Know provisions due to the inclusion of the following components of this material in one or more of the five hazard categories listed in 40 CFR 370:

Chemical Name	Hazard *)	CAS Number	Categories
N,N-didecyl-N,N-dimethylammoniumchloride		(7173-51-1)	A
N-Alkyl(C ₁₂₋₁₆)-N,N-dimethylbenzylammonium chloride		(8001-54-5)	A
Isopropyl		(67-63-0)	F

*) The five hazard categories are as follows: F=FIRE HAZARD; S= SUDDEN RELEASE OF PRESSURE; R=REACTIVE; A=IMMEDIATE (ACUTE) HEALTH HAZARD; C=DELAYED (CHRONIC) HEALTH HAZARD

SARA Title III Section 313 - This act requires submission of annual reports of releases of the following components of this material if the threshold reporting quantities as listed in 40 CFR 372, are met or exceeded:

Chemical Name	Typical Maximum	CAS Number	Concentration
None known			

STATE RIGHT-TO-KNOW REGULATIONS:

CALIFORNIA PROPOSITION 65 - Components present in this material which the State of California has found to cause cancer, birth defects or other reproductive harm are as follows:

AS A CANCER HAZARD

Chemical Name	CAS Number	Typical Maximum Concentration
Acetaldehyde	75-07-0	1 ppm
Benzene	71-43-2	100 ppm
Benzyl chloride	100-44-7	100 ppm
N-Nitrosodimethylamine	62-75-9	500 ppb
Propylene oxide	75-56-9	10 ppm

AS A REPRODUCTIVE HAZARD

Chemical Name	CAS Number	Typical Maximum Concentration
Benzene	71-43-2	100 ppm
Toluene	108-88-3	100 ppm

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***** X - MISCELLANEOUS AND REGULATORY INFORMATION (continued) *****

MASSACHUSETTS Right-to-Know - The following components of this material are included in the Massachusetts Substance List and are present at or above reportable levels:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
Acetaldehyde	75-07-0	1 ppm
Benzene	71-43-2	100 ppm
Benzyl chloride	100-44-7	100 ppm
Propylene oxide	75-56-9	10 ppm
Isopropyl	67-63-0	3.5%

MICHIGAN Critical Materials - The following components of this material are included in the Michigan Critical Materials List:

<u>Chemical Name</u>	<u>CAS Number</u>
None known	

NEW JERSEY Right-to-Know - The following components of this material are included in the New Jersey Hazardous Substance List and are present at or above reportable levels:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
N-Alkyl (C ₁₂₋₁₆)-N,N-dimethylbenzylammonium chloride	8001-54-5	20%
Isopropyl	67-63-0	3.5%

PENNSYLVANIA Right-to-Know - The following components of this material are included in the Pennsylvania Hazardous Substance List and are present at or above reportable levels:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
Isopropyl	67-63-0	3.5%
Benzene	71-43-2	100 ppm