

**Safety Data Sheet (SDS)**

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 12/07/2017

Reviewed on 12/07/2017

**1 Identification**

- **Product Identifier**
- **Trade name: NACCOSAN**
- **Relevant identified uses of the substance or mixture and uses advised against:** Fertilizer
- **Product Description** Fertilizer
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**  
Grow More  
15600 New Century Drive  
Gardena, CA 90248  
(310) 515-1700  
www.growmore.com
- **Emergency telephone number:** (310) 515-1700

**2 Hazard(s) Identification**

- **Classification of the substance or mixture:**



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **Label elements:**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS05 GHS07

- **Signal word:** Danger
- **Hazard-determining components of labeling:**  
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides  
Decyldimethyloctylammonium chloride  
Dimethyldioctylammonium chloride  
Didecyldimethylammonium chloride
- **Hazard statements:**  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.
- **Precautionary statements:**  
P260 Do not breathe dusts or mists.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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- P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.  
 P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a poison center/doctor.  
 P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).  
 P363 Wash contaminated clothing before reuse.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Unknown acute toxicity:**

This value refers to knowledge of known, established toxicological or ecotoxicological values.

9.5 % of the mixture consists of component(s) of unknown toxicity.

· **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme· **NFPA ratings (scale 0 - 4)**· **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = *3
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

· **Hazard(s) not otherwise classified (HNOC):** None known**3 Composition/Information on Ingredients**· **Non-hazardous components:**

7732-18-5	Water, distilled water, deionized water	70-90%
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· **Chemical characterization: Mixtures**· **Description:** Mixture of substances listed below with non-hazardous additions.· **Dangerous Components:**

CAS: 68424-85-1	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302	5-10%
CAS: 32426-11-2	Decyldimethyloctylammonium chloride ⚠ Acute Tox. 3, H301; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2B, H320	5-10%
CAS: 5538-94-3	Dimethyldioctylammonium chloride ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	2-12%
CAS: 7173-51-5	Didecyldimethylammonium chloride ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302	2-12%
CAS: 64-17-5 RTECS: KQ 6300000	Ethanol ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	≤ 2.5%

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**Trade name: NACCOSAN****· Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

**4 First-Aid Measures****· Description of first aid measures:**

**· General information:** Immediately remove any clothing soiled by the product.

**· After inhalation:**

Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.

**· After skin contact:**

Immediately wash with water and soap and rinse thoroughly.  
If skin irritation occurs, consult a doctor.

**· After eye contact:**

Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes.  
Seek immediate medical advice.

**· After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

**· Information for doctor:**

**· Most important symptoms and effects, both acute and delayed:** No further relevant information available.

**· Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

**5 Fire-Fighting Measures****· Extinguishing media:****· Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**· Special hazards arising from the substance or mixture:** No further relevant information available.

**· Advice for firefighters:****· Protective equipment:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

**6 Accidental Release Measures****· Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

**· Environmental precautions:** Do not allow to enter sewers/surface or ground water.

**· Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the collected material according to regulations.

**· Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**· Protective Action Criteria for Chemicals****· PAC-1:**

68424-85-1	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	1.3 mg/m <sup>3</sup>
7173-51-5	Didecyldimethylammonium chloride	0.82 mg/m <sup>3</sup>
64-17-5	Ethanol	1,800 ppm

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· <b>PAC-2:</b>		
68424-85-1	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	14 mg/m <sup>3</sup>
7173-51-5	Didecyldimethylammonium chloride	9 mg/m <sup>3</sup>
64-17-5	Ethanol	3300* ppm
· <b>PAC-3:</b>		
68424-85-1	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	84 mg/m <sup>3</sup>
7173-51-5	Didecyldimethylammonium chloride	17 mg/m <sup>3</sup>
64-17-5	Ethanol	15000* ppm

**7 Handling and Storage**

- **Handling**
- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities:**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool, dry place.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.
- **Specific end use(s):** No further relevant information available.

**8 Exposure Controls/Personal Protection**

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**  
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.  
At this time, the other constituents have no known exposure limits.

**64-17-5 Ethanol**

PEL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
TLV	Short-term value: 1880 mg/m <sup>3</sup> , 1000 ppm

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing and wash before reuse.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.

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**Trade name: NACCOSAN****· Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

**· Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

**· Penetration time of glove material:**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

**· Eye protection:**

Tightly sealed goggles

**9 Physical and Chemical Properties****· Information on basic physical and chemical properties****· General Information****· Appearance:****Form:**

Liquid

**Color:**

Clear

**· Odor:**

Slight

**· Odor threshold:**

Not determined.

**· pH-value:**

Not applicable.

**· Change in condition****Melting point/Melting range:**

Not determined.

**Boiling point/Boiling range:**

78-100 °C (172.4-212 °F)

**· Flash point:**

None

**· Flammability (solid, gaseous):**

Not applicable.

**· Ignition temperature:**

Not applicable

**· Decomposition temperature:**

Not determined.

**· Auto igniting:**

Product is not self-igniting.

**· Danger of explosion:**

Product does not present an explosion hazard.

**· Explosion limits:****Lower:**

Not determined.

**Upper:**

Not determined.

**· Vapor pressure @ 20 °C (68 °F):**

23 hPa (17.3 mm Hg)

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**Trade name: NACCOSAN**

- **Density:**
  - Relative density:** Not determined.
  - Vapor density:** Not determined.
  - Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
  - Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 2.0 %
  - Water:** 72.8 %
  - VOC content:** 2.0 %
- **Other information:** No further relevant information available.

**10 Stability and Reactivity**

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

**11 Toxicological Information**

- **Information on toxicological effects:**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**5538-94-3 Dimethyldioctylammonium chloride**

Oral LD50 1025 mg/kg (Rat)

**7173-51-5 Didecyldimethylammonium chloride**

Oral LD50 84 mg/kg (Rat)

**64-17-5 Ethanol**

Oral LD50 7060 mg/kg (Rat)

Remarks: Lungs, Thorax, or Respiration: Other changes.

Carcinogenicity - Mouse - Oral

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors.

Blood: Lymphomas including Hodgkin's disease.

Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Heart - Irregularities - Based on Human Evidence

Central nervous system - Breathing difficulties - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

Inhalative LC50/4 h 20000 mg/l (Rat)

LC50/96 hours 12900-15300 mg/l (Trout)

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**Trade name: NACCOSAN**· **Primary irritant effect:**· **On the skin:**

Corrosive effect on skin and mucous membranes.  
Corrosive to skin and mucous membranes.

· **On the eye:**

Corrosive effect.  
Causes serious eye irritation.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Corrosive  
Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories:**· **IARC (International Agency for Research on Cancer):**

The IARC (the International Agency for Research on Cancer) concluded that ethanol found alcoholic beverages to be Group 1 - Carcinogenic to humans. All other instances it is not consider carcinogenic.

Group 1 - Carcinogenic to humans

Group 2A - Probably carcinogenic to humans

Group 2B - Possibly carcinogenic to humans

Group 3 - Not classifiable as to its carcinogenicity to humans

Group 4 - Probably not carcinogenic to humans

64-17-5 Ethanol

1

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

**12 Ecological Information**· **Toxicity:**· **Aquatic toxicity:****64-17-5 Ethanol**

EC50 34900 mg/l (Daphnia)

· **Persistence and degradability:** No further relevant information available.· **Behavior in environmental systems:**· **Bioaccumulative potential:** No further relevant information available.· **Mobility in soil:** No further relevant information available.· **Additional ecological information:**· **General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

· **Results of PBT and vPvB assessment:**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects:** No further relevant information available.

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**Trade name: NACCOSAN****13 Disposal Considerations**

- **Waste treatment methods:**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

**\*14 Transport Information**

- **UN-Number:** UN2735
- **DOT, ADR/ADN, IMDG, IATA**
- **UN proper shipping name:** Polyamines, liquid, corrosive, n.o.s.
- **DOT** UN2735 Polyamines, liquid, corrosive, n.o.s.
- **ADR/ADN** POLYAMINES, LIQUID, CORROSIVE, N.O.S.
- **IMDG, IATA**
- **Transport hazard class(es):**

· **DOT**

- **Class:** 8 Corrosive substances
- **Label:** 8

· **ADR/ADN, IMDG, IATA**

- **Class:** 8 Corrosive substances
- **Label:** 8
- **Packing group:** III
- **DOT, ADR/ADN, IMDG, IATA** Not applicable.
- **Environmental hazards:** Warning: Corrosive substances
- **Special precautions for user:** F-A,S-B
- **EMS Number:** Alkalis
- **Segregation groups:** A
- **Stowage Category**
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **Transport/Additional information:**

· **ADR/ADN**

- **Excepted quantities (EQ):** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S., 8, III

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**Trade name: NACCOSAN****15 Regulatory Information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed or exempt from listing.

- **California Proposition 65:**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

64-17-5 Ethanol

- **New Jersey Right-to-Know List:**

64-17-5 Ethanol

- **New Jersey Special Hazardous Substance List:**

64-17-5 Ethanol

CA, MU, TE, F3

- **Pennsylvania Right-to-Know List:**

64-17-5 Ethanol

- **Pennsylvania Special Hazardous Substance List:**

None of the ingredients are listed.

- **Carcinogenic categories:**

- **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH):**

64-17-5 Ethanol

A3

- **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**



GHS05 GHS07

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- **Hazard-determining components of labeling:**  
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides  
Decyldimethyloctylammonium chloride  
Dimethyldioctylammonium chloride  
Didecyldimethylammonium chloride
- **Hazard statements:**  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.
- **Precautionary statements:**  
P260 Do not breathe dusts or mists.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.  
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a poison center/doctor.  
P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).  
P363 Wash contaminated clothing before reuse.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**National regulations:**

None of the ingredients are listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other Information**

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Date of preparation / last revision:** 12/07/2017 / 2

**Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety and Health

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OSHA: Occupational Safety &amp; Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· \* **Data compared to the previous version altered.**SDS created by MSDS Authoring Services [www.msdsauthoring.com](http://www.msdsauthoring.com) +1-877-204-9106