

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

1 Identification

- **Product identifier**

- **Trade name:** **GEOGREEN™**
REGIONAL AND SPECIALTY FERTILIZER BLENDS

- **Other product identifiers:**

CALIFORNIA 20-
5-10-12S

CENTRAL 28-8-
10-6S

EAST 28-8-
8

EAST: PHOSPHORUS FREE
28-0-8

EVERGREEN BLEND
27-7-10-6S

FALL BLEND
10-22-22

FLORIDA 14-0-
14

NORTHWEST
24-6-12

PALM BLEND
7-2-16-12S

SOUTHWEST
20-4-10-15S

- **Recommended use and restriction on use**

- **Recommended use:** Slow Release Tree Fertilizer
- **Restrictions on use:** No relevant information available.

- **Details of the supplier of the Safety Data Sheet**

- **Distributed By:**

Rainbow Treecare
Scientific Advancements
11571 K-Tel Drive

- **Minnetonka, MN 55343**

www.treecarescience.com

- **Emergency telephone number:** (800)-424-9300 (CHEMTREC)

(Cont'd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

Trade name: GEOGREEN™
REGIONAL FERTILIZER BLENDS

(Cont'd. of page 1)

2 Hazard(s) identification

- **Classification of the substance or mixture**

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. Route of exposure: Inhalation.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms:**



GHS08

- **Signal word:** Warning

- **Hazard statements:**

H373 May cause damage to organs through prolonged or repeated exposure. Route of exposure: Inhalation.

- **Precautionary statements:**

P260 Do not breathe dusts or mists.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Components:**

57-13-6	urea		5-40%
7704-34-9	sulfur	⚠ Skin Irrit. 2, H315	<10%
10043-35-3	boric acid	⚠ Repr. 1B, H360	<5%
10034-96-5	manganese (II) sulfate monohydrate	⚠ STOT RE 2, H373 ⚠ Eye Irrit. 2A, H319	<5%

- **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

- **Description of first aid measures**

- **After inhalation:**

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

(Cont'd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

Trade name: GEOGREEN™
REGIONAL FERTILIZER BLENDS

(Cont'd. of page 2)

- **After skin contact:**
 Brush off loose particles from skin.
 Clean with water and soap.
 If skin irritation is experienced, consult a doctor.
- **After eye contact:**
 Remove contact lenses if worn.
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
 Rinse out mouth and then drink plenty of water.
 Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
 Gastric or intestinal disorders when ingested.
 Nausea in case of ingestion.
 Slight irritant effect on skin and mucous membranes.
 Slight irritant effect on eyes.
- **Danger:**
 May cause damage to organs through prolonged or repeated exposure. Route of exposure: Inhalation.
 Danger of disturbed cardiac rhythm.
- **Indication of any immediate medical attention and special treatment needed:** Treat symptomatically.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 The product is not flammable.
 Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
 Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
 Wear self-contained respiratory protective device.
 Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 Use respiratory protective device against the effects of fumes/dust/aerosol.
 Ensure adequate ventilation.
 Use personal protective equipment as required.
- **Environmental precautions**
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up**
 Pick up mechanically.
 Dispose of the collected material according to regulations.

(Cont'd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

Trade name: GEOGREEN™
REGIONAL FERTILIZER BLENDS

(Cont'd. of page 3)

- **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.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Prevent formation of dust.
Do not breathe dust.
Use only in well ventilated areas.
- **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:**
Storage area should be dry and well-ventilated.
Protect from humidity and water.
Containers should be tightly sealed.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**

57-13-6 urea

WEEL (USA)	Long-term value: 10 mg/m ³
------------	---------------------------------------

10043-35-3 boric acid

TLV (USA)	Short-term value: 6* mg/m ³ Long-term value: 2* mg/m ³ *as inhalable fraction
EL (Canada)	Short-term value: 6 mg/m ³ Long-term value: 2 mg/m ³
EV (Canada)	Short-term value: 6 mg/m ³ Long-term value: 2 mg/m ³ inorganic, inhalable
LMPE (Mexico)	Short-term value: 6* mg/m ³ Long-term value: 2* mg/m ³ A4;*fracción inhalable

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

Trade name: GEOGREEN™
REGIONAL FERTILIZER BLENDS

(Cont'd. of page 4)

10034-96-5 manganese (II) sulfate monohydrate

PEL (USA)	Ceiling limit value: 5 mg/m ³ as Mn
REL (USA)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³ as Mn
TLV (USA)	Long-term value: 0.02* 0.1* mg/m ³ as Mn; *respirable **inhalable fraction Long-
EL (Canada)	term value: 0.2 mg/m ³ as Mn; R
LMPE (Mexico)	Long-term value: 0.2 mg/m ³ como Mn

- **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.
 Wash hands before breaks and at the end of work.
 Do not inhale dust / smoke / mist.
 Avoid contact with the eyes.
 Avoid close or long term contact with the skin.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:**
 Avoid inhalation of the chemical/ the product/ the preparation by organizational measures.
 NIOSH or EU approved dust respirator should be used for operations generating dust.
 Use suitable respiratory protective device when aerosol or mist is formed.
 For spills, respiratory protection may be advisable.
- **Protection of hands:**
 Gloves not required under normal conditions of use.
 Gloves are advised for repeated or prolonged contact.
 Wear protective gloves to handle contents of damaged or leaking units.
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- **Eye protection:** Follow relevant national guidelines concerning the use of protective eyewear.
- **Body protection:** Not required under normal conditions of use.
- **Limitation and supervision of exposure into the environment** No special requirements.
- **Risk management measures** No special requirements.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **Appearance:**
 - Form: Solid
 - Color: According to product specification
- **Odor:** Characteristic

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

Trade name: GEOGREEN™
REGIONAL FERTILIZER BLENDS

(Cont'd. of page 5)

· Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	Not determined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not determined.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	0.76 - 0.92
Bulk density	47.67 - 57.19 lb/ft ³
Vapor density:	Not applicable.
Evaporation rate:	Not applicable.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Toxic fumes may be released if heated above the decomposition point.
Reacts with strong alkali.
Reacts with strong acids.
- **Conditions to avoid** Moisture.
- **Incompatible materials** No relevant information available.

(Cont'd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

Trade name: GEOGREEN™
REGIONAL FERTILIZER BLENDS

(Cont'd. of page 6)

- **Hazardous decomposition products**

Carbon monoxide and carbon dioxide
 Nitrogen oxides (NO_x)
 Phosphorus oxides (e.g. P₂O₅)
 Sulfur oxides (SO_x)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

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

10043-35-3 boric acid

Oral	LD50	2660 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**

- **On the skin:** Based on available data, the classification criteria are not met.

- **On the eye:** Based on available data, the classification criteria are not met.

- **Sensitization:** No sensitizing effects known.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

- **Probable route(s) of exposure:**

Inhalation.

Eye contact.

Skin contact.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

- **Carcinogenicity:** Based on available data, the classification criteria are not met.

- **Reproductive toxicity:** Based on available data, the classification criteria are not met.

- **STOT-single exposure:** Based on available data, the classification criteria are not met.

- **STOT-repeated exposure:**

May cause damage to organs through prolonged or repeated exposure. Route of exposure: Inhalation.

- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity** Harmful to aquatic life with long lasting effects.

- **Persistence and degradability** No relevant information available.

(Cont'd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

Trade name: GEOGREEN™
REGIONAL FERTILIZER BLENDS

(Cont'd. of page 7)

- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Smaller quantities can be disposed of with household waste.
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | Not regulated. |
| · UN proper shipping name | |
| · DOT, ADR, IMDG, IATA | Not regulated. |
| · Transport hazard class(es) | |
| · DOT, ADR, IMDG, IATA | |
| · Class | Not regulated. |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Not regulated. |
| · Environmental hazards | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

(Cont'd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

Trade name: GEOGREEN™
REGIONAL FERTILIZER BLENDS

(Cont'd. of page 8)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 304 (emergency release notification):**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

Substance / component not listed individually, but listed under family group as Zinc salts.

7783-20-2 ammonium sulphate

10034-96-5 manganese (II) sulfate monohydrate

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **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:**

None of the ingredients are listed.

· **Carcinogenic categories**

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

57-13-6 urea

II

10043-35-3 boric acid

I (oral)

10034-96-5 manganese (II) sulfate monohydrate

D

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

None of the ingredients are listed.

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

None of the ingredients are listed.

(Cont'd. on page 10)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 12/28/2016

Revision: 12/28/2016

Trade name: GEOGREEN™
REGIONAL FERTILIZER BLENDS

(Cont'd. of page 9)

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• **Date of preparation / last revision** 12/28/2016 / -

• **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

LDLo: Lowest Lethal Dose Observed

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

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

Repr. 1B: Reproductive toxicity – Category 1B

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

• **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com