

## Safety Data Sheet (SDS)

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

Issue date 08/11/2015

Reviewed on 08/11/2015

### 1 Identification

- **Product identifier**
- **Trade name:** 27-0-9-090-LND
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product description** PC12 Fertilizers
- **Details of the supplier of the safety data sheet:**
- **Manufacturer/Supplier:**  
Florikan ESA, LLC  
6801 Energy Ct.  
Suite 100  
Sarasota, FL. 34240  
ph: 941-379-4048 ext 332  
Fax: 941-377-3633  
Email product info: Doug Cabe; dcabe@florikan.com
- **Emergency telephone number:** Chemtrec 800-424-9300

[www.Florikan.com](http://www.Florikan.com)

### 2 Hazard(s) identification

- **Classification of the substance or mixture:**  
Eye Irrit. 2B H320 Causes eye irritation.
- **Label elements:**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Warning
- **Hazard statements:**  
Causes eye irritation.
- **Precautionary statements:**  
Wash thoroughly after handling.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.
- **Unknown acute toxicity:**  
9.3 percent of the mixture consists of ingredient(s) of unknown toxicity.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

|            |   |                |
|------------|---|----------------|
| HEALTH     | 1 | Health = 1     |
| FIRE       | 0 | Fire = 0       |
| REACTIVITY | 0 | Reactivity = 0 |

- **Hazard(s) not otherwise classified (HNOC):** None known

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture: consisting of the following components.

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|                                     |                                                                                            |        |
|-------------------------------------|--------------------------------------------------------------------------------------------|--------|
| <b>· Dangerous Components:</b>      |                                                                                            |        |
| CAS: 57-13-6<br>RTECS: YR 6250000   | Urea                                                                                       | 25-50% |
| CAS: 7783-20-2<br>RTECS: BS 4500000 | Ammonium Sulfate<br>⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335            | 15-35% |
| CAS: 8047-67-4                      | Iron saccharate                                                                            | 2-12%  |
| CAS: 7704-34-9                      | Sulfur<br>⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320; Combustible<br>Dust | 2-12%  |

### 4 First-aid measures

- **Description of first aid measures:**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If swallowed and symptoms occur, consult 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:** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
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.

### 7 Handling and storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **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:** No special requirements.

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- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **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:**

#### 57-13-6 Urea

WEEL Long-term value: 10 mg/m<sup>3</sup>

#### 7783-20-2 Ammonium Sulfate

PEL Short-term value: 10 mg/m<sup>3</sup>  
Long-term value: 15 mg/m<sup>3</sup>

#### 8047-67-4 Iron saccharate

REL Long-term value: 1 mg/m<sup>3</sup>  
as Fe

TLV Long-term value: 1 mg/m<sup>3</sup>  
as Fe

- **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:**

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.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:** Not required.

· **Material of gloves:** Not required.

· **Penetration time of glove material:** Not applicable.

· **Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:

Granulate

Color:

Whitish

· **Odor:**

Slight

· **Odor threshold:**

Not determined.

· **pH-value:**

Not applicable.

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- **Change in condition**
  - Melting point/Melting range:** Not determined.
  - Boiling point/Boiling range:** 445 °C (833 °F)
- **Flash point:** None
- **Flammability (solid, gaseous):** Not determined.
- **Ignition temperature:**
  - 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:** Not applicable.
- **Density:**
  - Relative density:** Not determined.
  - Vapor density:** Not applicable.
  - Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with:**
  - Water:** Soluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not applicable.
  - Kinematic:** Not applicable.
- **Solvent content:**
  - Organic solvents:** 0.0 %
- **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:**

**57-13-6 Urea**

|      |      |                  |
|------|------|------------------|
| Oral | LD50 | 8471 mg/kg (rat) |
|------|------|------------------|

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### 7783-20-2 Ammonium Sulfate

Oral LD50 2840 mg/kg (rat)  
Inhalative LC50/96 hours 36.7 mg/l (Trout)  
433 mg/l (Water flea)

· **Primary irritant effect:**

· **On the skin:** No irritating effect.

· **On the eye:** Irritating effect.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

· **Carcinogenic categories:**

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

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

8047-67-4 Iron saccharate

3

· **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:**

### 57-13-6 Urea

EC50 >10000 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.

· **Results of PBT and vPvB assessment:**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No further relevant information available.

## 13 Disposal considerations

· **Waste treatment methods:**

· **Recommendation:** Recycle or dispose with household trash.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

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- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **UN-Number:**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

### 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):**

7783-20-2 Ammonium Sulfate

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

57-13-6 Urea

7783-20-2 Ammonium Sulfate

7447-40-7 Potassium Chloride

7704-34-9 Sulfur

25791-96-2 Poly(oxypropylene) triol

#### · **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:**

None of the ingredients are listed.

#### · **Carcinogenic categories:**

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

57-13-6 Urea

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|                                                                                                                       |                                                                                  |        |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------|
| · <b>TLV (Threshold Limit Value established by ACGIH):</b>                                                            |                                                                                  |        |
| None of the ingredients are listed.                                                                                   |                                                                                  |        |
| · <b>NIOSH-Ca (National Institute for Occupational Safety and Health):</b>                                            |                                                                                  |        |
| None of the ingredients are listed.                                                                                   |                                                                                  |        |
| · <b>GHS label elements</b>                                                                                           |                                                                                  |        |
| The product is classified and labeled according to the Globally Harmonized System (GHS).                              |                                                                                  |        |
| · <b>Hazard pictograms:</b> Non-Regulated Material                                                                    |                                                                                  |        |
| · <b>Signal word:</b> Warning                                                                                         |                                                                                  |        |
| · <b>Hazard statements:</b>                                                                                           |                                                                                  |        |
| Causes eye irritation.                                                                                                |                                                                                  |        |
| · <b>Precautionary statements:</b>                                                                                    |                                                                                  |        |
| Wash thoroughly after handling.                                                                                       |                                                                                  |        |
| If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.        |                                                                                  |        |
| Continue rinsing.                                                                                                     |                                                                                  |        |
| If eye irritation persists: Get medical advice/attention.                                                             |                                                                                  |        |
| · <b>National regulations:</b>                                                                                        |                                                                                  |        |
| The product is subject to be classified according with the latest version of the regulations on hazardous substances. |                                                                                  |        |
| · <b>State Right to Know:</b>                                                                                         |                                                                                  |        |
| CAS: 57-13-6<br>RTECS: YR 6250000                                                                                     | Urea                                                                             | 25-50% |
| CAS: 7783-20-2<br>RTECS: BS 4500000                                                                                   | Ammonium Sulfate                                                                 | 15-35% |
|                                                                                                                       | ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335                      |        |
| CAS: 7447-40-7                                                                                                        | Potassium Chloride                                                               | 5-10%  |
| CAS: 8047-67-4                                                                                                        | Iron saccharate                                                                  | 2-12%  |
| CAS: 7704-34-9                                                                                                        | Sulfur                                                                           | 2-12%  |
|                                                                                                                       | ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320; Combustible<br>Dust |        |
|                                                                                                                       | Polyurethane elastomer                                                           | ≤ 2.5% |
| All ingredients are listed.                                                                                           |                                                                                  |        |
| · <b>Chemical safety assessment:</b> 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:** 08/11/2015 / -

· **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)  
HMS: Hazardous Materials Identification System (USA)  
LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

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

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

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard 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