

Safety Data Sheet (SDS)

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

Issue date 10/22/2015

Reviewed on 10/22/2015

1 Identification

- **Product Identifier**
- **Trade name:** 19-4-7-270
- **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 1-800-424-9300 or outside USA 1-703-527-3887
Chemtrec (US): (800) 424-9300
Chemtrec (Outside US): (703) 527-3887 (Collect calls accepted)

www.Florikan.com

2 Hazard(s) Identification

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



GHS08 Health Hazard



Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS07



Skin Sens. 1 H317 May cause an allergic skin reaction.

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



GHS08

- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Diphenylmethanediisocyanate, isomeres and homologues
- **Hazard statements:**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.

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· **Precautionary statements:**

[In case of inadequate ventilation] wear respiratory protection.
 Avoid breathing dust/fume/gas/mist/vapors/spray.
 Wear protective gloves.
 Contaminated work clothing must not be allowed out of the workplace.
 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
 Wash contaminated clothing before reuse.
 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 If skin irritation or rash occurs: Get medical advice/attention.
 IF ON SKIN: Wash with plenty of water.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Unknown acute toxicity:**

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
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 of substances listed below with non-hazardous additions.

· **Dangerous Components:**

CAS: 57-13-6 RTECS: YR 6250000	Urea	15-35%
CAS: 7720-78-7 RTECS: NO 8510000	iron(II) sulfate ☞ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	≤ 2,5%
CAS: 1309-48-4	Magnesium Oxide ☞ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	≤ 2,5%
CAS: 9016-87-9 RTECS: TR 0320000	Diphenylmethanediisocyanate, isomeres and homologues ☞ Resp. Sens. 1, H334; STOT RE 2, H373; ☞ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	≤ 2,5%
CAS: 1314-13-2 RTECS: ZH 4810000	Zinc Oxide ☞ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≤ 2,5%

4 First-Aid Measures

· **Description of first aid measures:**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water.

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- If eye irritation occurs, 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:**
CO₂, 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:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to section 13.
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:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
- **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.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **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/m³

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7720-78-7 iron(II) sulfate

REL Long-term value: 1 mg/m³
as Fe

TLV Long-term value: 1 mg/m³
as Fe

1309-48-4 Magnesium Oxide

PEL Long-term value: 15* mg/m³
fume; *total particulate

TLV Long-term value: 10* mg/m³
*as inhalable fraction

· **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.

Wash hands before breaks and at the end of work.

· **Breathing equipment:** Not required.

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

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

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

· **Eye protection:** Not required.

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.

· **Change in condition**

Melting point/Melting range:

Not determined.

Boiling point/Boiling range:

1689 °C (3072 °F)

· **Flash point:**

None

· **Flammability (solid, gaseous):**

Not determined.

· **Ignition temperature:**

Not determined

· **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.

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- **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 %
 - Solids content:** 100.0 %
- **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)

7720-78-7 iron(II) sulfate

Oral LD50 1520 mg/kg (mouse)

1314-13-2 Zinc Oxide

Oral LD50 > 5000 mg/kg (rat)

- **Primary irritant effect:**

- **On the skin:** May cause an allergic skin reaction.

- **On the eye:** No irritating effect.

- **Sensitization:** Sensitization possible through inhalation.

- **Additional toxicological information:**

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

Harmful

- **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

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Group 3 - Not classifiable as to its carcinogenicity to humans

Group 4 - Probably not carcinogenic to humans

1309-37-1	Ferric oxide	3
9016-87-9	Diphenylmethanediisocyanate, isomeres and homologues	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:**

Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packagings:**

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

· **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.

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- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL 73/78 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):**

7720-78-7 iron(II) sulfate

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

7785-87-7 Manganese Sulphate

11129-60-5 Manganese oxide

9016-87-9 Diphenylmethanediisocyanate, isomeres and homologues

10034-96-5 Manganese(II) Sulfate Monohydrate

1314-13-2 Zinc Oxide

7758-99-8 Copper Sulfate Pentahydrate

7733-02-0 Zinc Sulphate (anhydrous)

1317-38-0 Cupric Oxide

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

7778-80-5 Potassium Sulfate

57-13-6 Urea

7720-78-7 iron(II) sulfate

1309-48-4 Magnesium Oxide

7487-88-9 Magnesium Sulphate

1317-61-9 Iron Oxide

1309-37-1 Ferric oxide

1332-58-7 Kaolin

7785-87-7 Manganese Sulphate

25791-96-2 Poly(oxypropylene) triol

1344-43-0 Manganese(II) oxide

9016-87-9 Diphenylmethanediisocyanate, isomeres and homologues

1314-13-2 Zinc Oxide

7758-99-8 Copper Sulfate Pentahydrate

7733-02-0 Zinc Sulphate (anhydrous)

- **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.

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

None of the ingredients are listed.

• **Carcinogenic categories:**

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

57-13-6	Urea	II
7785-87-7	Manganese Sulphate	D
11129-60-5	Manganese oxide	D
9016-87-9	Diphenylmethanediisocyanate, isomeres and homologues	CBD
10034-96-5	Manganese(II) Sulfate Monohydrate	D
1314-13-2	Zinc Oxide	D, I, II
7733-02-0	Zinc Sulphate (anhydrous)	D, I, II

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

1309-48-4	Magnesium Oxide	A4
1309-37-1	Ferric oxide	A4
1332-58-7	Kaolin	2 mg/m3

• **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:**



GHS08

• **Signal word:** Danger

• **Hazard-determining components of labeling:**

Diphenylmethanediisocyanate, isomeres and homologues

• **Hazard statements:**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

• **Precautionary statements:**

[In case of inadequate ventilation] wear respiratory protection.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves.

Contaminated work clothing must not be allowed out of the workplace.

Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Wash contaminated clothing before reuse.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If skin irritation or rash occurs: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

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

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• National regulations: The product is subject to be classified according with the latest version of the regulations on hazardous substances.		
• State Right to Know:		
CAS: 7778-80-5 RTECS: TT5900000	Potassium Sulfate	60-90%
CAS: 57-13-6 RTECS: YR 6250000	Urea	15-35%
	Polyurethane elastomer	5-10%
CAS: 7720-78-7 RTECS: NO 8510000	iron(II) sulfate ☞ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	≤ 2,5%
CAS: 1309-48-4	Magnesium Oxide ☞ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	≤ 2,5%
CAS: 7487-88-9 RTECS: OM 4500000	Magnesium Sulphate ☞ STOT SE 3, H335	≤ 2,5%
All 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:** 10/22/2015 / -

• **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)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

• *** Data compared to the previous version altered.**

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