

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date 01/04/2016

Reviewed on 01/04/2016

1 Identification

- **Product identifier**
- **Trade name:** Lutz Citrus Spike
- **Product code:** 30196
- **Recommended use and restriction on use**
- **Recommended use:** Fertilizer
- **Restrictions on use:** Contact manufacturer
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Lutz Corporation
208 North Parkside Road
Normal, IL 61761
Tel.: 1-630-878-3746
- **Emergency telephone number:** 800-203-7740

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements:** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Precautionary statements:** Not regulated.
- **Other hazards**
There are no other hazards not otherwise classified that have been identified.
0 % of the mixture consists of component(s) of unknown toxicity.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures

· **Dangerous components:**

| | | |
|------------|--|-------|
| 10034-96-5 | manganese (II) sulfate monohydrate | 5-10% |
| 7758-98-7 | copper sulphate ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319 | <5% |
| 25322-68-3 | polyethylene glycol | <5% |
| 7720-78-7 | iron(II) sulfate ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319 | <5% |
| 1303-96-4 | disodium tetraborate, decahydrate ⚠ Repr. 1B, H360 | <1% |

· **SVHC**

| | | |
|-----------|-----------------------------------|--|
| 1303-96-4 | disodium tetraborate, decahydrate | |
|-----------|-----------------------------------|--|

· **Additional information:**

For the listed ingredient(s), the identity and exact percentage(s) are being withheld as a trade secret.

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For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information:** Avoid breathing dust.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Wash with soap and water.
- **After eye contact:**
Rinse opened eye for several minutes under running water.
Remove contact lenses if worn.
Seek medical treatment in case of complaints.
- **After swallowing:**
Unlikely route of exposure.
Rinse mouth with water. Do not induce vomiting. Get medical attention.
- **Most important symptoms and effects, both acute and delayed:** No relevant information available.
- **Danger:** No relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No relevant information available.

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** No relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:** No relevant information available.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
Ensure adequate ventilation.
Avoid formation of dust.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose unusable material as waste according to item 13.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Use only in well ventilated areas.
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:**
Store in a well-ventilated place. Keep cool.
Protect from humidity and water.
- **Information about storage in one common storage facility:**
Do not store together with oxidizing and acidic materials.
Store away from foodstuffs.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

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 |
| EL (Canada) | Long-term value: 0.2 mg/m ³ as Mn; R |
| LMPE (Mexico) | Long-term value: 0.2 mg/m ³ como Mn |

25322-68-3 polyethylene glycol

| | |
|------------|--|
| WEEL (USA) | Long-term value: 10 mg/m ³ (H); MW>200 |
|------------|--|

7720-78-7 iron(II) sulfate

| | |
|-----------|---|
| REL (USA) | Long-term value: 1 mg/m ³ as Fe |
|-----------|---|

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| | |
|---------------|--|
| TLV (USA) | Long-term value: 1 mg/m ³ as Fe |
| EL (Canada) | Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³ as Fe |
| LMPE (Mexico) | Long-term value: 1 mg/m ³ como Fe |

1303-96-4 disodium tetraborate, decahydrate

| | |
|---------------|--|
| REL (USA) | Long-term value: 5 mg/m ³ |
| 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 |

- **Exposure controls**
- **Engineering measures** Provide adequate ventilation.
- **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.
Avoid breathing dust.
Wash hands before breaks and at the end of work.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:**
Not required under normal conditions of use.
Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:** Rubber gloves
- **Eye protection:**
Follow relevant national guidelines concerning the use of protective eyewear.



Safety glasses

- **Body protection:** Not required under normal conditions of use.
- **Limitation and supervision of exposure into the environment** Avoid release to the environment.
- **Risk management measures**
Do not smoke, eat, or drink while using the product. Wash hands with soap and water before eating, drinking, smoking, or using toilet facilities.

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9 Physical and chemical properties

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

· **General information**

· **Appearance:**

Form: Solid
 Color: Light brown

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition:**

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.

· **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.

· **Oxidizing properties:** Not determined.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 2.8 g/cm³ (23.366 lbs/gal)

· **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.

· **Other information** No relevant information available.

10 Stability and reactivity

· **Reactivity:** No relevant information available.

· **Chemical stability:** Stable under normal temperatures and pressures.

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- **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 acids and alkali.
- **Conditions to avoid:** Prevent formation of dust.
- **Incompatible materials:** Oxidizing agents
- **Hazardous decomposition products:** Danger of toxic pyrolysis products.

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

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

7758-98-7 copper sulphate

| | | |
|------|------|-----------------|
| Oral | LD50 | 300 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.

· **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.

· **Acute effects (acute toxicity, irritation and corrosivity):** None.

· **Repeated dose toxicity:** None.

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

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** Toxic for aquatic organisms

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- **Persistence and degradability:** No relevant information available.
- **Behavior in environmental systems**
- **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.
Also poisonous for fish and plankton in water bodies.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
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.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|--|---|
| <ul style="list-style-type: none"> · UN-Number · DOT · ADR, IMDG, IATA | <p>Not regulated. UN3077</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG · IATA | <p>Not regulated. ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper sulphate, zinc sulphate) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper sulphate, zinc sulphate), MARINE POLLUTANT Environmentally hazardous substance, solid, n.o.s. (copper sulphate, zinc sulphate)</p> |

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· **Transport hazard class(es)**

· DOT

· **Class** Not regulated.

· **ADR**



· **Class** 9 (M7) Miscellaneous dangerous substances and articles

· **IMDG, IATA**



· **Class** 9 Miscellaneous dangerous substances and articles

· **Packing group**

· DOT

Not regulated.

· **ADR, IMDG, IATA**

III

· **Environmental hazards**

· **Marine pollutant:**

Yes

Symbol (fish and tree)

· **Special marking (ADR):**

Symbol (fish and tree)

· **Special marking (IATA):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles

· **Danger code (Kemler):**

90

· **EMS Number:**

F-A,S-F

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

Not regulated when carried in single or combination packaging containing a net quantity of 5L or less for liquids or 5 kg or less for solids per the following:

DOT: 171.4(2)

ADR: SP 375

IMDG: 2.10.2.7

IATA: special provision A197

· DOT

· **Remarks:**

Transport labeling is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.

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15 Regulatory information

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

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

| | |
|-----------|------------------|
| 7720-78-7 | iron(II) sulfate |
|-----------|------------------|

· **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 |
|------------|------------------------------------|

| | |
|-----------|-----------------|
| 7758-98-7 | copper sulphate |
|-----------|-----------------|

· **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):**

| | | |
|------------|------------------------------------|---|
| 10034-96-5 | manganese (II) sulfate monohydrate | D |
|------------|------------------------------------|---|

| | | |
|-----------|-----------------------------------|----------|
| 1303-96-4 | disodium tetraborate, decahydrate | I (oral) |
|-----------|-----------------------------------|----------|

| | | |
|-----------|---------------------------|----------|
| 7733-02-0 | zinc sulphate (anhydrous) | D, I, II |
|-----------|---------------------------|----------|

· **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.

· **Canada**

· **Canadian substance listings**

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%):**

None of the ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 1%):**

| | |
|-----------|-------------------|
| 7783-20-2 | ammonium sulphate |
|-----------|-------------------|

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| | |
|-----------|------------------|
| 7758-98-7 | copper sulphate |
| 7720-78-7 | iron(II) sulfate |

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

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** 01/04/2016 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

Acute Tox. 4: Acute toxicity, Hazard Category 4

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

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

Repr. 1B: Reproductive toxicity, Hazard Category 1B

· **Sources**

Website, European Chemicals Agency ([http://http://echa.europa.eu/](http://echa.europa.eu/))

Website, US EPA Substance Registry Services ([http://http://ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/home.do))

Website, Chemical Abstracts Registry, American Chemical Society (<https://www.cas.org>)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 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

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