Safety Data Sheet according to OSHA-GHS
(29 CFR part 1910.1200 HCS 2012)

PRODUCT NAME: Maxxon® Set Modifier
Product Code: 13020
Date of Issue: May 2018  Supersedes: May 2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Maxxon® Set Modifier
Recommended uses: Industrial use of the product for formulation of preparations or mixtures of fertilizers and other agricultural chemicals. Consumer end-use of fertilizers, plant protection products.
Restrictions on uses: None identified
Supplier: Maxxon Corporation
920 Hamel Road  PO box 253
Hamel, MN 55340
Company Telephone/Fax: (763) 478-9600  /  (763) 478-2431
Emergency Telephone Number: (800) 424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:
Classification of the chemical in accordance with 29CFR §1910.1200
Not classified as hazardous.
Label elements
Hazard pictograms: None applicable
Signal word: None applicable
Hazard Statements: None applicable
Precautionary Statements: None applicable
Other Hazards: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>EC No</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium sulfate</td>
<td>7778-80-5</td>
<td>231-915-5</td>
<td>&gt;94%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of first aid measures
General information: In case of persisting adverse effects, consult a physician. Never give anything by mouth to an unconscious person or a person with cramps.
Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact: Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.
Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation continues, get medical advice/attention.
Ingestion: Rinse mouth and drink plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell.
4. **FIRST AID MEASURES (CONTINUED)**

**Most important symptoms and effects, both acute and delayed**

The following symptoms may occur:

- **In case of inhalation:** May be irritant to the respiratory tract
- **In case of skin contact:** May cause skin irritation
- **In case of eye contact:** May cause eye irritation
- **In case of ingestion:** Ingestion of large amounts may cause gastrointestinal disturbances

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

Treat symptomatically

5. **FIRE FIGHTING MEASURES**

- **Suitable extinguishing media:** Use any suitable means for extinguishing surrounding fire
- **Unsuitable extinguishing material:** None, but attention should be paid to compatibility with surrounding chemicals.

**Specific hazards arising from the chemical:** Thermal decomposition can lead to the escape of toxic/irritating gasses and vapors. Thermal decomposition products include sulfur oxide fumes by extreme heating.

- **Protective equipment and precautions for firefighters:** Wear a self-contained breathing apparatus and chemical protective clothing.

6. **ACCIDENTAL RELEASE MEASURES**

- **Personal precautions:** Provide adequate ventilation to reduce dust concentrations. Wear PPE.
- **Environmental precautions:** Do not allow to enter into surface water or drains. Ensure waste is collected and contained.
- **Methods for containment and cleaning up:** Take up mechanically, placing in appropriate containers for disposal or recovery.
- **Unsuitable material for taking up:** None specified

7. **HANDLING AND STORAGE**

- **Precautions for Safe Handling:** Avoid generation of dust. Provide adequate ventilation. Wear personal protective equipment, when required. Do not breathe dust. Wash hands before breaks and at the end of workday. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuff. Good hygiene practices and housekeeping measures.
- **Conditions for safe storage, including any incompatibilities:** Reseal carefully any opened container and set upright to avoid leakages. Keep/store only in original container. Keep the product tightly closed in a dry, well-ventilated and cool place.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Occupational exposure limits
Potassium sulfate:
OSHA    PEL: Not established
        STEL/ceiling: Not established
ACGIH   TWA: Not established  (2012 TLVs® and BEIs®)
        STEL/ceiling: Not established  (2012 TLVs® and BEIs®)

Derived No-Effect Level (DNEL) suggested by the manufacturer

<table>
<thead>
<tr>
<th>Workers (industrial/professional):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL Human, dermal, long term:</td>
<td>21.3 mg/kg bw/day (systemic)</td>
</tr>
<tr>
<td>DNEL Human, inhalation long term:</td>
<td>37.6 mg/m³/day (systemic)</td>
</tr>
</tbody>
</table>

Derived No-Effect Level (DNEL) is the level of exposure to the substance above which humans should not be exposed to.

Engineering controls
Containment as appropriate. Good standard of general ventilation. Effective contaminant extraction.

Personal Protective Equipment
Eye/face protection: Chemical goggles
Hand protection: Nitrile rubber gloves, suggested but not required to control risk
Respiratory protection: Dust mask required in dusty environments or exceeding total dust limits

Environmental exposure controls
Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: Solid granular or crystalline
Color: White (crystalline); tan (granular)
Odor: Odorless
Odor Threshold: Not Applicable
Physical state: Solid
pH value: 4.5-8.5 (5% aqueous solution)
Melting point / freezing point: 1067°C / 1953°F at 1013 hPa  (Literature information)
Boiling temperature / boiling range: 1689°C / 3072°F at 1013 hPa  (Literature information)
Flash point: Not Applicable
Vaporization rate / evaporation rate: Non volatile
Flammability: Nonflammable  (Based on chemical structure)
Explosion limits (LEL, UEL): Not applicable
Vapor pressure: Not applicable
Vapor density: No data available
Density (bulk): 1.2-1.5 ton (metric)/m³
Solubility: >100 g/L at 20°C / 68°F (water)
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9. PHYSICAL AND CHEMICAL PROPERTIES (CONTINUED)

Partition coefficient n-octanol / water: Not applicable
(Based on chemical structure)

Auto Ignition Temperature (AIT): Not applicable

Decomposition temperature: Not applicable

Viscosity: Not applicable

Explosive properties: Non explosive
(Based on chemical structure)

Oxidizing properties: Non oxidizing
(Based on chemical structure)

10. STABILITY AND REACTIVITY

Reactivity: No hazardous reaction when handled and stored according to provisions

Chemical stability: Stable under normal storage and temperature conditions.

Possibility of hazardous reactions: None identified

Conditions to avoid: None specific identified.

Incompatible materials: None identified

Hazardous decomposition products: Sulfur oxide fumes by extreme heating.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure (inhalation, ingestion, skin and eye contact): Eye contact, skin contact and inhalation. Exposure by ingestion is not expected to occur through normal industrial or professional use.

Symptoms related to the physical, chemical and toxicological characteristics
May be irritant to the skin, eyes, and the respiratory tract. Ingestion of large amounts may cause gastrointestinal disturbances.

Information on toxicological effects from short and long term exposure

Acute toxicity
Acute oral toxicity LD50: >2000 mg/kg bw Species: Rat Method: OECD Guideline 423

Acute dermal toxicity LD50: >2000 mg/kg bw Species: Rat Method: OECD Guideline 405/EU B.3

Assessment / classification: Based on available data, the classification criteria are not met

Irritant and corrosive effects
Primary irritation to the skin EU Method B.46 (In-vitro skin irritation) Result: Not irritating Species: Not applicable

Irritation to eyes OECD guideline 405 Result: Not irritating Species: Rabbit (New Zealand White)

Assessment / classification: Based on available data, the classification criteria are not met

Germ cell mutagenicity / Genotoxicity
In-vitro genotoxicity Method: OECD Guideline 471 Result: negative
### Germ cell mutagenicity / Genotoxicity (Cont.)

<table>
<thead>
<tr>
<th>Gene-mutations mammalian cells</th>
<th>OECD Guideline 476</th>
<th>negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromosome aberrat. mammalian cells</td>
<td>OECD Guideline 473</td>
<td>negative</td>
</tr>
</tbody>
</table>

Assessment / classification: Based on available data, the classification criteria are not met

### Reproductive toxicity

**Adverse effects on reproduction**

OECD guideline 422  NOAEL: ≥ 1500 mg/kg bw/day

No effects were found on reproduction parameters, neither embryotoxic or developmental effects at the highest dose tested. In 90-d and one generation studies with chemically related substances, no effects on fertility were observed.

### Developmental toxicity / teratogenicity

OECD guideline 422  NOAEL: ≥ 1500 mg/kg bw/day

No effects were found on reproduction parameters, neither embryotoxic or developmental effects at the highest dose tested. In 90-d and one generation studies with chemically related substances, no effects were observed.

Assessment / classification: Based on available data, the classification criteria are not met

### Specific target organ toxicity (single exposure)

Practical experience / human evidence

No relevant effects have been described after single exposure to the substance.

Assessment / classification: Based on available data, the classification criteria are not met

### Specific target organ toxicity (repeated exposure)

OECD guideline 422  NOAEL(C): ≥ 1500 mg/kg bw/day

Equivalent or similar to OECD guideline 453  NOAEL(C): 256 mg/kg bw/day (male, rat)

Data obtained by analogy conclusion (ammonium sulphate)

Absolute spleen weights were decreased and relative liver weights were increased in high dose males.

Assessment / classification: Based on available data, the classification criteria are not met

### Aspiration hazard

Physicochemical and toxicological data does not indicate a potential aspiration hazard.

Assessment / classification: Based on available data, the classification criteria are not met

### Carcinogenicity

There is no evidence of carcinogenicity or genotoxicity with potassium sulphate. No evidence of a carcinogenic potential was observed in a study equivalent or similar to OECD guideline 453 with ammonium sulphate.

International Agency for Research on Cancer (IARC)  Not listed

National Toxicology Program (NTP)  Not listed

29 CFR part 1910, subpart Z  Not listed

Assessment / classification: Based on available data, the classification criteria are not met
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12. ECOLOGICAL INFORMATION

Ecotoxicity
Aquatic toxicity
96-h LC50 680 mg/L  Fish (Pimephales promelas) (US EPA Guideline EPA/600/4-90/027)
48-h EC50 720 mg/L  Daphnia magna (Big water flea) (US EPA Guideline EPA/600/4-90/027)
18-d EC50 > 100 mg/L Chlorella vulgaris (literature information)
3-h EC50 >100 mg/L Aquatic micro-organisms Conclusion obtained by structural analysis and intended use

Assessment / classification: Based on available data, the classification criteria are not met

Persistence and degradability: In aqueous solution, potassium sulfate is completely dissociated into the potassium ion (K⁺) and the sulfate anion (SO₄²⁻). Hydrolysis of potassium sulfate does not occur. Due to the inorganic nature of the substance standard testing systems are not applicable.

Bioaccumulative potential: Potassium sulfate completely dissociates in water forming potassium ions and sulfate anions. Potassium sulfate has a low potential for bioaccumulation based on physicochemical properties.

Mobility in soil: Based on the high water solubility and the ionic nature, potassium sulfate is not expected to adsorb, however, due to ion exchange process, sulfates can be retained in soil, both by incorporation into organic matter (e.g. as sulfate esters of humic acids) and adsorbed to soil particles such as hydrous iron and aluminum sesquioxides.

Other adverse effects: None specified.

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable federal and state laws.
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal method in compliance with applicable regulations.
Potassium sulfate is not listed as a dangerous waste in Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

14. TRANSPORTATION INFORMATION

US DOT (ground)
UN-No. Non dangerous good
UN Proper Shipping Name Not applicable
Hazard class Not applicable
Packing group Not applicable
Marine pollutant No
Hazard label Not applicable
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14. TRANSPORATION INFORMATION (CONTINUED)

International Maritime Organization (IMDG Code)
UN-No. Non dangerous good
UN Proper Shipping Name Not applicable
Hazard class Not applicable
Packing group Not applicable
Marine pollutant No
Hazard label Not applicable

International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA)
UN-No. Non dangerous good
UN Proper Shipping Name Not applicable
Hazard class Not applicable
Packing group Not applicable
Hazard label Not applicable

Special handling procedure
None

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

Other special precautions
None

15. REGULATORY INFORMATION

US Federal
SARA Title III Rules
Section 311/312 Hazard Classes
Acute Health Hazard No
Chronic Health Hazard No
Fire Hazard No
Release of Pressure No
Reactive Hazard No

Section 313 Toxic Chemicals
No components listed

Section 302 Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances
No components listed

NFPA 704/2012: National Fire Protection Associates
Health 1
Fire 0
Instability 0
Special None

US State Regulations
California Proposition 65 No components listed

Canada
Ingredient Disclosure List: No components listed
WHMIS Classification: Not classified
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15. REGULATORY INFORMATION (CONTINUED)

Canada (Cont.)
This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

European Union
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Not classified as hazardous.

16. OTHER INFORMATION

Product List: Maxxon Set Modifier
Issue Date: May 2015
Version: 02
Revision Date: May 2018
Prepared by: Maxxon Corporation

Indication of changes: All sections were reviewed and modified to comply with 29CFR part 1910 subpart Z (2012).


Disclaimer: This SDS is intended to quickly provide useful information to the user(s) of this material or product. It is not intended to serve as a comprehensive discussion of all possible risks or hazards, and it assumes a reasonable use of the product. The information contained in this SDS is believed to be accurate as the date of preparation of this SDS and has been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. The user or handler (or their employer) should consider the specific conditions in which this material will be used, handled or stored and determine what specific safety or other precautions are required. Employers should ensure that their employees, agents, contractors and customers who will use the product receive adequate warnings and safe handling procedures, including a current SDS. Product users or handlers (or their employer) who are unsure of what specific precautions are required should consult their employer, product supplier, or safety or health professionals before handling or working with this product. Please notify us immediately if you believe this SDS or other safety and health information about this product is inaccurate or incomplete.