# SAFETY DATA SHEET

This SDS complies with REACH 1907/2006 and 2001/58/EC, GHS REVISION 5, OSHA 29CFR 1910.1200

## Section 1: Chemical Product and Company Identification

MANUFACTURER'S NAME
HydroGro
7881 East Gray Road
Scottsdale, AZ 85260 USA

Safety Data Sheet Competent Person: Customer Service

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Chemtrec U.S.-Canada: 800-424-9300
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DATE PREPARED: December 15, 2016

**REVISION DATE: December 15, 2016**

PRODUCT NAME: **tenK**
FORMULA: Preparation/Mixture
PRODUCT USE: A foliar feed to maintain or correct nitrogen levels in plants.

## Section 2: Hazards Identification

**GHS Hazard Class**

| | | |
|---|---|---|
| Physical Hazards: | Corrosive to metals | Category 1 |
| Health Hazards: | Skin Corrosion/Irritation | Category 1A, B, C |
| | Acute toxicity oral | Category 4 |
| | Serious eye damage/eye irritation | Category 1 |
| | Hazardous to the aquatic environment Acute hazard | Category 1 |

Signal word: Danger

Hazard Statement:
H290: May be corrosive to metals
H302: Harmful if swallowed
H312: Harmful in contact with skin
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H400: Very toxic to aquatic life

Precautionary Statements:

Prevention
P234: Keep only in original container.
P260: Wash thoroughly after handling
P264: Wear protective gloves/protective clothing/eye protection/face protection
P270: Do not eat, drink or smoke, when using this product
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response
P301 + P312: IF SWALLOWED: call a POISON CENTER/doctor/IF you feel unwell.
P302 + P352: IF ON SKIN: wash with plenty of water.
P303 + P361 + P353: IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P321:
P322:
P330 + P332 + P313:
P337 + P313: IF eye irritation persists: Get medical advice/attention.
P362: Take off contaminated clothing.
P363: Wash contaminated clothing before reuse.
P390: Absorb spillage to prevent material damage.

| | |
|---|---|
| Storage | P404: Store in a closed container.<br>P405: Store locked up |
| Disposal | P501: Dispose of contents/container in accordance with the waste disposal requirements of your country, state, or local authorities. |
| | Hazards not otherwise classified (HNOC) or not covered by GHS - None |
| HAZARD CLASSIFICATION: | DOT: Not dangerous goods, IMDG & IATA: Environmentally hazardous substance |
| FIRE AND EXPLOSION: | Considered flammable or combustible. Product emits toxic fumes when burned. |
| POTENTIAL HEALTH EFFECTS: | <1 % of mixture consists of ingredients of unknown acute toxicity |
| APPEARANCE: | Clear Green Liquid |

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| Component | Health (Blue) | Flammability (Red) | Reactivity (Yellow) | Special (White) |
|---|---|---|---|---|
| tenK | 3 | 0 | 1 | ----- |

# Section 3: Composition, Information on Ingredients

| PRODUCT COMPOSITION | APPROX % | CAS NO. | EC NUMBER | CANADA DSL |
|---|---|---|---|---|
| Urea | < 30 | 57-13-6 | 200-315-5 | Y |
| Potassium Hydroxide | <20 | 1310-58-3 | 215-181-3 | Y |
| Water | < 40 | 7732-18-5 | 231-791-2 | Y |
| Magnesium Glycinate | <10 | 14783-68-7 | 238-852-2 | N |
| Iron Glycinate | <10 | 20150-34-9 | 606-444-7 | N |
| Zinc Glycinate | <5 | 14281-83-5 | 238-173-1 | N |
| Copper Glycinate | <5 | 13479-54-4 | 236-783-2 | N |

Some items on this SDS may be designated as trade secrets (TS). Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 I 1-13.

# Section 4: First Aid Measures

### Description of First Aid Measures

| | |
|---|---|
| Inhalation | Remove to fresh air. If not breathing, provide CPR (cardio pulmonary resuscitation). Call a poison center or doctor/physician if you feel unwell. |
| Skin Contact | Take off immediately all contaminated cloth Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse. |
| Eye Contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses is present and easy to do. Continue rinsing. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately Rinse mouth. DO NOT induce Vomiting. If vomiting occurs keep head low so that stomach content doesn't get into the lungs. |

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

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|---|---|
| Symptoms/Injuries after Inhalation | May cause respiratory tract irritation. |
| Symptoms/Injuries after Skin Contact | Burning pain and severe corrosive skin damage. |
| Symptoms/Injuries after Eye Contact | Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. |
| Symptoms/Injuries after Ingestion | Harmful if swallowed. |

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

Provide general supportive measures and treat symptomatically. Thermal burns: flush with water immediately. While flushing remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Chemical burns: Flush with water immediately. While flushing remove clothes which do not adhere to affected area. Call and ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

**General Information**

Take off all contaminated clothing immediately. If you feel unwell, seek medical advise (show the label where possible. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

## Section 5: Fire-fighting Measures

| | |
|---|---|
| **Suitable extinguishing media** | Use foam, dry chemical, carbon dioxide, or any media suitable to extinguish the surrounding fire |
| **Unsuitable extinguishing media** | Do not use water jet as an extinguisher, as this will spread the fire. |
| **Special hazards arising from the substance or mixture** | Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gasses hazardous to health may be formed. |
| **Protective actions fire-fighters** | Self-contained breathing apparatus and full protective clothing must be worn in case of fire |
| **Firefighting equipment/instructions** | In case of fire and/or explosion do not breath fumes. Move containers from fire area f you can do so without risk. |
| **Specific Methods** | Use standard firefighting procedures and consider the hazards of the other involved materials. |
| **General fire hazards** | Flammable liquid and vapor. |

## Section 6: Accidental Release Measures

| | |
|---|---|
| **Personal precautions, protective equipment and emergency procedures** | Keep unnecessary personal away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area) Wear appropriate protective equipment and clothing during clean up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless waring appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection see section 8 of the SDS. |
| **Methods and materials for containment and cleaning up** | Use water spray to reduce vapors or the verge of a Weber cloud draft. Eliminate all ignition sources (no smoking, flair sparks or flames an immediate area). Keep combustibles (wood paper boiled etc.) Away from spilled material. Take precautionary measures instead of just church. Use only non-sparking tools<br><br>Large spills: Stop the flow of material, if it'd without risk. Take this built material, where it is possible. Cover with plastic sheet to prevent spreading. Use a noncombustible material like vermiculite, sand or Earth to soak up the product and placed into container for litter disposal. Following product recovery, flush area with water.<br><br>Small spills: Absorb with the earth, sand or other non-combustible material and transfer to containers for greater disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.<br><br>Never return spells to the original containers for reuse. Four waste disposal, see section 13 of this SDS. |
| **Environmental precautions** | Four discharge into trains, water courses or into the ground. |

## Section 7: Handling and Storage

**Precautions for safe handling**

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. When using do not eat drink or smoke. Provide adequate ventilation. Do not handle, store open year an open flame, sources of Pete or sources of ignition. Protect material from direct sunlight. Explosion-proof general or local exhaust ventilation. Take precautionary measures against status discharges. All equipment used when handling the product must be grounded. Use non-sparking tools in explosion-proof equipment. Where appropriate personal protective equipment. Wash hands thoroughly after handling. There's good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge buildup by using common bonding and grounding techniques. Storing a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well ventilated place. Keep in area equipped with sprinklers. Store away from incompatible materials (see section 10 of the SDS).

**Specific uses**

This product is intended to be used for foliar applications.

## Section 8: Exposure Controls/Personal Protection

**Occupational exposure limits**

| PRODUCT COMPOSITION | ACCGIH TLV | OSHA PEL | NIOSH REL |
|---|---|---|---|
| Potassium Hydroxide | 2mg/m$^3$ | | 2mg/m$^3$ |
| Urea | | | 10mg/m$^3$ |

**Biological limit values**

no biological exposure limits noted for the ingredients.

**Appropriate engineering controls**

Explosion-proof general and good local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process group enclosures, local exhaust ventilation, or other engineering controls to maintain a level below recommended exposure limits. If exposure limits have not been established maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection members, such as personal protective equipment**

**Eye/face protection**

Wear safety glasses with side shields (or goggles) and a face shield.

**Skin protection**

**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier

**Other**

Wear perfect chemical resistant clothing

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** :

When using do not smoke. Always observe good hygiene measures, such as washing after handling material before eating, drinking, and or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## Section 9: Physical and Chemical Properties

| | PRODUCT CRITERIA |
|---|---|
| APPEARANCE - COLOR: | |
| PHYSICAL STATE: | Liquid |
| ODOR: | Pungent Odor |
| ODOR THRESHOLD | No data available |
| PH | No data available |
| MELTING POINT/FREEZING POINT: | No data available |
| INITIAL BOILING POINT AND BOILING RANGE: | > 100°C |
| FLASH POINT: | No data available |
| EVAPORATION RATE: | No data available |
| FLAMMABILITY (Solid, gas) | Not flammable |
| UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS | Not Measured |
| VAPOR PRESSURE | No data available |
| VAPOR DENSITY (AIR = 1) | No data available |
| RELATIVE DENSITY (@25 ºC): | |
| SOLUBILITY(IES) | Soluble in water |
| OXIDIZING PROPERTIES | No data available |
| PARTITION COEFFICIENT: n-octanol/water | No data available |
| AUTO IGNITION TEMPERATURE | No data available |
| DECOMPOSITION TEMPERATURE | No data available |
| VISCOSITY | No data available |

## Section 10: Stability and Reactivity

**Reactivity:** Not reactive

**Chemical Stability:** Stable under recommended conditions.

**Possibility of Hazardous Reactions:** Will not occur under normal temperatures and pressures.

**Conditions to Avoid:** Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flashpoint. Contact within incompatible materials.

**Incompatibility (Materials to avoid):** This product is compatible with the majority of agricultural remedies. However, it is advisable to do a miscibility test prior to mixing with other chemicals. Do not mix concentrate directly with other herbicides or pesticides concentrates – always dilute first. Do not mix product with oxidizing materials or with any phosphate containing fertilizers.

**Hazardous decomposition products:** No hazardous decomposition products are known.

## Section 11: Toxicological Information

Information on likely routes of exposure

| | |
|---|---|
| Inhalation | May cause irritation to the respiratory system. Prolonged inhalation may be harmful |
| Skin Contact | Causes severe skin burns |
| Eye Contact | Causes serious eye damage |
| Ingestion | Causes digestive tract burns. Harmful if swallowed. |
| Symptoms related to the physical, chemical and toxicological characteristics | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent high damage including blindness could result. May cause respiratory irritation. |

Information on toxicological effects

| | |
|---|---|
| Acute toxicity | In high concentration, vapors are and anesthetic and may cause headaches, dizziness and central nervous system effects. Harmful if swallowed. May cause respiratory irritation |
| Skin corrosion/irritation | Causes severe skin burns and eye damage |

| | |
|---|---|
| Serious eye damage/eye irritation | Causes serious eye damage. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not a respiratory sensitizer. |
| Skin sensitization | This product is not expected to cause skin sensitization |
| Germ cell mutagenicity | No data available to indicate products or components present at greater than 0.1% are mutagenic or genotoxic |
| | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSH |
| Carcinogenicity | |
| IARC monographs. Overall evaluation for Carcinogenicity | Not available. |
| OSHA specifically regulated substances (29 CSR 1910.1001 – 1050) | Not listed |
| US national toxicology program (NTP) report on carcinogens | Not available |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental defects |
| Specific organ toxicity- single exposure | May cause respiratory irritation |
| Specific target organ toxicity repeated exposure | Not classified |
| Aspiration hazard | Not an aspiration hazard. |

## Section 12: Ecological Information

Toxicity:

| Chemical Constituent | Result | Species | Exposure |
|---|---|---|---|
| Potassium Hydroxide | LC50 80mg/L | Gambusia Affinis (mosquito fish) | 96 hours |

Persistence and degradability: No information is available

Bioaccumulative potential: No information is available

Mobility in soil: No information is available.

PBT and vPvB assessment: PBT/vPvB assessment not available as chemical assessment not required/not conducted

Other adverse effects: No information is available.

## Section 13: Disposal Considerations

**Waste from residues/unused products:** Follow the waste disposal requirements of your country, state, or local authorities.

**Contaminated packaging:** Contaminated packaging material should be disposed of as stated above for residues and unused product.

**Rinsate:** Do not dispose of rinse water containing product in a sanitary sewer system or storm water drainage system.

## Section 14: Transport Information

DOT

| | |
|---|---|
| UN Number | UN1813 |
| UN proper shipping name | Potassium Hydroxide Solution |
| Transportation hazard class | |
| Class | 8 |
| Subsidiary risk | |
| Packing group | II |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling |
| ERG number | 154 |

DOR information on packaging may be different from that listed

DOT


## Section 15: Regulatory Information

US Federal Regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

TOXIC SUBSTANCE CONTROL ACT (TSCA) STATUS:
This product is in compliance with rules, regulations, and orders of TSCA. All components are either listed on the TSCA inventory or are considered exempt.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III SECTION 313 SUPPLIER NOTIFICATION:

This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of the Emergency Planning and Community Right To Know Act of 1986 and 40 CFR 372. This information must be included in all SDS's that are copied and distributed for the material.

The Section 313 toxic chemicals contained in this product are: Not regulated

Hazards categories:
- Immediate Hazard –No
- Delayed Hazard – No
- Fire Hazard – No
- Pressure Hazard – No
- Reactivity Hazard – No

SARA 302 Extremely hazardous substance
Not listed

SARA 311/312 Hazardous chemical
Yes

SARA 313 (TRI Reporting)
Not regulated

CALIFORNIA PROPOSITION 65:

This regulation requires a warning for California Proposition 65 chemical(s) under the statute.
The California proposition 65 chemical(s) contained in this product are: None

STATE RIGHT-TO-KNOW TOXIC SUBSTANCE OR HAZARDOUS SUBSTANCE LIST:

| | |
|---|---|
| Massachusetts's hazardous substance(s): | Potassium Hydroxide CAS 1310-58-3 |
| Pennsylvania | Potassium Hydroxide CAS 1310-58-3 |

CANADA:
WHMIS-2015: This SDS is in compliance with WHMIS 2015 (HPR / new HPA).

EUROPEAN UNION:
This product has been reviewed for compliance with the following European Community Directives: REACH 1907/2006; Regulation (EC) No 1272/2008 on classification, labeling, and packaging (CLP) of substances and mixtures.

## Section 16: Other Information

| | |
|---|---|
| Initial issue date: | December 15, 2016 |
| Final revision date: | December 15, 2016 |
| Revision Number: | 0 |
| Revision explanation | Initial version |
| Information Sources: | RTECS, ECHA, REACH, OSHA 29CFR 1910.1200 |

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