

## Safety Data Sheet

# MARINER CHALLENGE

**SDS Number:** 236

**Revision:**

February 22, 2017

### Section 1 · IDENTIFICATION

**Product Name** Mariner Challenge  
**Other Identification** Potassium tri poly phosphate Fertilizer solution

**Recommended Use** Agricultural Industry – Fertilizer use

**Manufacturer**

**Company Name** Custom Ag Formulators, Inc.  
**Address** 3430 S Willow Ave, Fresno, CA 93725, United States  
**Telephone** (800) 355-4457  
**Website** www.4caf.com

<b>Emergency Contacts</b>	Custom Ag Formulators, Inc.	(559) 435-1052
	CHEMTREC	(800) 424-9300 (Domestic) (703) 527-3887 (International)

### Section 2 · HAZARD(S) IDENTIFICATION

**Signal Word**

*Label*



Warning

**Physical Hazards** Not Classified.

**Health Hazards** Category 2

**Reactivity Hazards** Category 0

**Environmental Hazards** Category 0

**Flammability Hazards** Category 0

**OSHA Defined Hazards** Not Classified.

**Hazard Statement**  
H315- Causes skin irritation  
H320- Causes eye irritation  
H335- May cause respiratory irritation

**Storage** P403+P233 - Store in a well-ventilated place. Keep container tightly closed

**Disposal** P501 - Dispose of contents/container to ... specify in accordance with local/regional/national regulations

### Section 3 · COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixtures

<i>Chemical Name</i>	<i>Common Name &amp; Synonyms</i>	<i>CAS Number</i>	<i>%</i>
Phosphorous Acid	N/A	10294-56-1	Proprietary
Potassium Tripoly Phosphate	N/A	13845-36-8	Proprietary

### Section 4 · FIRST-AID MEASURES

<b>Inhalation</b>	When symptoms occur: go into open air and ventilate suspected area. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin Contact</b>	Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.
<b>Eye Contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor.
<b>General Information</b>	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.

### Section 5 · FIRE-FIGHTING MEASURES

<b>Suitable extinguishing</b>	Not flammable, use media suitable for combustibles involved in fire.
<b>Unsuitable extinguishing</b>	None known.
<b>Specific hazards arising from the chemical</b>	<p><i>Fire Hazard:</i> Not considered flammable but may burn at high temperatures.</p> <p><i>Explosion Hazard:</i> Product is not explosive.</p> <p><i>Reactivity:</i> May react violently with oxidants, causing fire and explosion hazard.</p>
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.
<b>Fire-fighting equipment/instructions</b>	Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapors from decomposition. Do not allow run-off from firefighting to enter drains or water courses.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Do not enter fire area without proper protective equipment, including respiratory protection.

## Section 6 · ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Avoid all contact with skin, eyes, or clothing. Avoid breathing vapor, mist, or spray. Use appropriate personal protection equipment (PPE). Evacuate unnecessary personnel.

### Methods and materials for containment and cleaning up

**Large Spills** Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. If spilled directly onto the ground, remove sufficient soil to ensure material is fully recovered. Contact competent authorities after a spill.

**Small Spills** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Environmental precautions**

Prevent entry to sewers and public waters.

## Section 7 · HANDLING & STORAGE

**Precautions for safe handling**

Do not handle until all safety precautions have been read and understood. Use appropriate personal protection equipment (PPE). Avoid contact with skin, eyes and clothing. Avoid breathing vapors, mist, and spray. Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

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

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up.

**Incompatible Products:** Strong acids. Strong bases. Strong oxidizers. Acetaldehyde. Chlorine. Ethylene oxide. Isocyanates. Peroxides. Bromine.

## Section 8 · EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational exposure limits**

No exposure limits noted for ingredient(s).

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

### Personal protective equipment (PPE)

**Eye/face protection** Wear safety glasses with side shields (or goggles) and a face shield.

<i>Skin protection</i>	Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.
<i>Hand protection</i>	Wear appropriate chemical resistant gloves.
<i>Respiratory protection</i>	None generally required. If conditions exist where mist may be generated, a NIOSH/MSHA approved mist respirator should be worn.
<i>Thermal hazards</i>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	There are no known hazards associated with this product when use as recommended, however common good industrial hygiene practices should be followed, such as washing thoroughly after handling and before eating or drinking.

## Section 9 · PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Dark brown, liquid.
<b>Odor</b>	Organic sulfur odor.
<b>Odor threshold</b>	N/A
<b>pH</b>	6-7.5
<b>Melting point/freezing point</b>	N/A
<b>Initial boiling point and boiling range</b>	> 222 °F (> 106 °C)
<b>Flash point</b>	N/A
<b>Evaporation rate</b>	N/A
<b>Flammability (solid, gas)</b>	N/A
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	N/A
<b>Flammability limit - upper (%)</b>	N/A
<b>Explosive limit - lower (%)</b>	N/A
<b>Explosive limit - upper (%)</b>	N/A
<b>Vapor density</b>	N/A
<b>Relative density</b>	11.81 lbs/gal.
<b>Specific gravity</b>	1.41
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	100%
<b>Partition coefficient (n-octanol/water)</b>	N/A
<b>Auto-ignition temperature</b>	N/A
<b>Decomposition temperature</b>	N/A
<b>Viscosity</b>	N/A

## Section 10 · STABILITY & REACTIVITY

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions
<b>Possibility of hazardous reactions</b>	Hazardous polymerization will not occur
<b>Conditions to avoid</b>	Incompatible materials.

**Incompatible materials** Strong oxidizers. This product is not compatible with lead or mercury or their alloys. These materials of construction should not be used in handling systems or storage containers for this product.

**Hazardous decomposition products** None known.

## Section 11 · TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

*Ingestion* Not determined.  
*Inhalation* Not determined.  
*Skin Contact* Not determined.  
*Eye Contact* Not determined.

**Symptoms related to the physical, chemical and toxicological characteristics** Not determined.

### Information on toxicological effects:

**Acute toxicity** Not determined.

**Skin corrosion/irritation** Not determined.

**Serious eye damage/eye irritation** Causes serious eye irritation.

### Respiratory or skin sensitization

*Respiratory sensitization* May cause an allergic skin reaction

*Skin sensitization* May cause an allergic skin reaction

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**OSHA Specifically Regulated Substances** Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not available.

## Section 12 · ECOLOGICAL INFORMATION

**Ecotoxicity** No data available.

<b>Persistence and degradability</b>	No data available.
<b>Bio accumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### **Section 13 · DISPOSAL CONSIDERATION**

<b>Disposal instructions</b>	Consult federal, state and local regulations for disposal requirements.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### **Section 14 · TRANSPORT INFORMATION**

<b>General</b>	Not DOT regulated in domestic (USA ground) transportation in package sizes less than 3,550 lbs (317 gallons); 1,610 kg (1,200 liters). The DOT transportation information below is for shipments with package sizes equal to or exceeding this value. IMDG Regulated Marine Pollutant.
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#### **DOT - Basic shipping requirements:**

<i>UN number</i>	Not regulated for transport
<i>DOT Label</i>	Not regulated for transport
<i>Proper shipping name</i>	Not regulated for transport
<i>Hazard class</i>	Not regulated for transport
<i>Packing group</i>	Not regulated for transport

#### **IMDG - Basic shipping requirements:**

<i>UN number</i>	Not regulated for transport
<i>IMDG Label</i>	Not regulated for transport
<i>Proper shipping name</i>	Not regulated for transport
<i>Hazard class</i>	Not regulated for transport
<i>Packing group</i>	Not regulated for transport
<i>EMS NO</i>	Not regulated for transport

#### **IATA - Basic shipping requirements:**

<i>UN number</i>	Not regulated for transport
<i>Proper shipping name</i>	Not regulated for transport
<i>Hazard class</i>	Not regulated for transport
<i>Packing group</i>	Not regulated for transport
<i>OCAP</i>	Not regulated for transport

#### **Environmental hazards**



**Marine pollutant** N/A

**Special precautions** Read safety instructions, SDS and emergency procedures before handling.

## Section 15 · REGULATORY INFORMATION

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List. This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.		
<b>Proposition 65 (CA)</b>	Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.		
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated		
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	<i>Reportable Quantity</i>		
<b>SARA 304 Emergency release notification</b>	Not applicable		
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not regulated		
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>			
	<i>Hazard categories</i>	Immediate Hazard	Yes
		Delayed Hazard	No
		Fire Hazard	No
		Pressure Hazard	No
		Reactivity Hazard	No
<b>SARA 302 Extremely hazardous substance</b>	Not listed		
<b>SARA 311/312 Hazardous chemical</b>	Immediate (acute)		

## Section 16 · OTHER INFORMATION

<b>Issue date</b>	February 22, 2017
<b>Disclaimer</b>	The above information is based on data of which the manufacturer is aware and is believed to be correct as of the date hereon. Since the information contained herein may be applied under conditions beyond the manufacturer's control and which may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, the manufacturer does not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.