



SAFETY DATA SHEET

Royal Flush

MSDS DATE: revised 2/13/2015

SECTION 1: IDENTIFICATION

PRODUCT IDENTIFIER: Royal Flush

PRODUCT USE: Agriculture, forestry, fishery
Adjuvants, Surface active agents
Industrial spraying
Wide dispersive outdoor use of processing aids in open systems

SUPPLIER DETAILS: Name: Brewer International, Incorporated
Address: PO Box 690037
Vero Beach, FL 32969
Phone: (800) 228-1833
Fax: (772) 778-2490

EMERGENCY PHONE: Chem Tel (800) 255-3924 available 24 hours

SECTION 2: HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION: Skin Corrosion, category 1
Eye Irritation, category 1
Skin Allergy, category 1
Metal Corrosive, category 1

EMERGENCY OVERVIEW

ROUTES OF ENTRY: Eye Contact, Skin Contact, Inhalation, Ingestion

HEALTH EFFECTS:

Eyes: **DANGER** causes severe eye damage.

Skin: **DANGER** causes severe skin burns. **WARNING** may cause allergic skin reaction.

PHYSICAL EFFECTS:

WARNING may be corrosive to metals.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Phosphoric Acid

<u>CAS #</u>	<u>WT%</u>
7664-38-2	38

INGREDIENT: Blend of Inorganic Phosphates

<u>CAS #</u>	<u>WT%</u>
Not applicable	2.3



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SECTION 4: FIRST-AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor for medical advice.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs, get medical attention.

IF SWALLOWED: Rinse mouth. **DO NOT** induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If breathing is difficult, administer oxygen, if available. Immediately call a POISON CONTROL CENTER for exposure to Phosphoric Acid.

NOTES FOR PHYSICIANS: This material is an acid. The primary toxicity of this product is due to its irritant effects on mucous membranes. If cough or shortness of breath occurs, evaluate the possibility of bronchitis or pneumonitis. Chest x-ray and arterial blood gases can be used to determine the presence of pulmonary edema. In severe cases, use of humidified oxygen and assisted ventilation including positive end expiratory pressure (PEEP) may be needed. Parenteral steroids may be useful in limiting the extent of pulmonary damage.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT:

F: >200°

C: >93°

SUITABLE EXTINGUISHING MEDIA: Water spray, dry chemicals, alcohol-resistant foam, carbon dioxide, or water fog.

UNSUITABLE EXTINGUISHING MEDIA: None

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Incomplete combustion may produce phosphorus oxides. Burning may produce noxious and toxic fumes.

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS: Evacuate the area promptly. Do not scatter spilled material with high pressure water streams. Use water spray to cool unopened containers. Wear self-contained breathing apparatus and full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Keep unnecessary personnel away. **DO NOT** touch damaged containers or spilled material unless wearing appropriate protective gear. Keep people away from and upwind of spill/leak. Keep out of low areas. Ensure adequate ventilation. Ventilate closed spaces before entering them. Material can create slippery conditions.

ENVIRONMENTAL PRECAUTIONS: Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers ditches and waterways.

METHODS FOR CONTAINMENT: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in the immediate area). Stop the flow of the material and dike spill area when possible without exposure to unnecessary risk.



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METHODS FOR CLEANING UP: **DO NOT** release this product into the environment. Use equipment rated for use around combustible materials. First, neutralize acidity with an alkaline material (i.e. soda ash, lime). For large spills, absorb spilled liquid with suitable non-combustible absorbent material such as dirt or sand. For small spills, wipe up with suitable absorbent material such as cloth. Clean exposed surfaces thoroughly to remove any residual contamination. Never return spills to original containers for re-use. Dispose any contaminated absorbents appropriately. For waste disposal, see section 13 of this MSDS.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wash hands and exposed skin thoroughly after handling. **DO NOT** breathe vapors or spray. Use only out doors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye protection. Use appropriate personal protective equipment. **DO NOT** get in eyes, on skin or on clothing. Avoid prolonged and repeated contact. **DO NOT** swallow. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated clothing must not be allowed out of the workplace. Keep material away from heat, sparks, and flame. The container is hazardous when emptied and should be disposed of appropriately.

STORAGE: Store in a well-ventilated place with proper sprinkler/fire deterrent system. Keep container tightly closed. Keep only in original container. Keep container closed when not in use. Avoid freezing temperatures. **DO NOT** cut, drill, grind or weld on or near this container. Keep out of the reach of children. Store locked up.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT(S)	EXPOSURE LIMITS
Phosphoric Acid	OSHA PEL: 1 mg/m ³ ACGIH TWA: 1 mg/m ³ ACGIH STEL: 3 mg/m ³
Blend of Inorganic Phosphates	OSHA PEL: Not Established ACGIH TWA: Not Established ACGIH STEL: Not Established

PEL= Permissible Exposure Limits
TWA= Time Weighted Average
STEL= Short term Exposure Limit

ACGIH= American Conference of Governmental Industrial Hygienists
OSHA= Occupational Safety and Health Administration

ENGINEERING CONTROLS: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Maintain air concentrations below occupational exposure limits. Use local exhaust when misting occurs. Natural ventilation is adequate in absence of mists. Keep away from sparks and flames.

RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required. An approved respirator must be worn if airborne concentrations are above any recommended exposure limits. In misty atmospheres, use an approved respirator.

EYE PROTECTION: If material could be misted or splashed into eyes, wear safety glasses with side shields (or goggles). Eye wash fountain should be available.

SKIN PROTECTION: Impervious gloves are recommended. Boots, apron, bodysuit, or other suitable protective clothing should be worn as necessary.



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WORK HYGIENIC PRACTICES: When using, do not eat, drink or smoke. Do not get in eyes. Do not get this material in contact with skin. Wash hands and face before breaks and immediately after handling the product. Launder contaminated clothing before reuse. Have eye wash and emergency shower facilities immediately available. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear yellow

ODOR: Low chemical odor

ODOR THRESHOLD: No data available

PHYSICAL STATE: Liquid

pH: No data available

FREEZING POINT: No data available

BOILING POINT: No data available

FLASH POINT: >200°F (93.3°C)

EVAPORATION RATE (N-Butyl Acetate = 1): No data available

FLAMMABILITY (SOLID, GAS): No data available

UPPER/LOWER FLAMMABILITY: No data available

VAPOR PRESSURE (mmHg): No data available
@ 68°F (20.0°C)

VAPOR DENSITY (AIR = 1): No data available

SPECIFIC GRAVITY (H₂O = 1): No data available
@ 68°F (20.0°C)

SOLUBILITY IN WATER: Soluble

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/POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization does not occur.

CHEMICAL STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Keep away from heat, sparks, static discharge, flame, exposure to elevated temperatures, and freezing temperatures.

INCOMPATIBLE MATERIALS: Strong bases; chlorides; stainless steel; sodium tetrahydroborate; amine, amides; alcohols; glycols; azo-compounds; cabamates; esters; caustics; phenols; cresols; ketones; organophosphates; epoxides; unsaturated halides; sulfides; mercaptans; cyanides; and aldehydes.



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HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Phosphorus oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Oral, ATE_{mix} = LD₅₀ 4,026 mg/kg for rats
Dermal, ATE_{mix} = LD₅₀ 7,210 mg/kg for rabbits
Inhalation, No data available

SKIN CORROSION/IRRITATION: Causes severe skin burns.

EYE DAMAGE/IRRITATION: Causes severe eye damage.

RESPIRATORY OR SKIN SENSITIZATION: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

GERM CELL MUTAGENICITY: No data available

CARCINOGENICITY: No components present in excess of 0.1% by weight listed as carcinogens by OSHA, NTP, IARC or ACGIH.

REPRODUCTIVE TOXICITY: No data available

SPECIFIC TARGET ORGAN TOXICITY

SINGLE EXPOSURE: May cause damage to kidney, gastrointestinal tract, respiratory irritation, headache, nausea, abdominal discomfort, vomiting, drowsiness, or dizziness.

REPEATED EXPOSURE: May cause damage to skin through prolonged or repeated exposure. Defatting of the skin may occur, leading to discomfort and dermatitis.

ASPIRATION HAZARD: Not expected

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY

Fish: ATE_{mix} = LC₅₀ 363 mg/L, Mosquito Fish/96 hr
Daphnia: No data available

PERSISTENCE AND DEGRADABILITY: No data available

BIOACCUMULATIVE POTENTIAL: No data available

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Incinerate or dispose of in accordance with Local, State, and Federal Regulations. Commercially clean containers prior to disposal. Oil soaked rags should be disposed of properly to prevent spontaneous combustion. Do not allow this material to drain into sewers/water supplies. For the safety of persons conducting disposal, please refer to the information in section 8.



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SECTION 14: TRANSPORT INFORMATION

DOT

Not regulated

IATA

Not regulated

IMDG

Not regulated

TDG

Not regulated

ENVIRONMENTAL HAZARDS: The product is not a marine pollutant as defined by 49 CFR part 171.8 or TDG regulations

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: 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 or exempt under 40 CFR 720.30.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT) reportable substances:

Ingredient	CAS #	Amount
Phosphoric Acid	7664-38-2	38%

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

HAZARD CATEGORIES

IMMEDIATE HAZARD: Yes

DELAYED HAZARD: No

FIRE HAZARD: No

PRESSURE HAZARD: No

REACTIVE HAZARD: No

313 REPORTABLE INGREDIENTS: No

302 EXTREMELY HAZARDOUS SUBSTANCE: No

CALIFORNIA PROPOSITION 65: *The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986.* This product does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



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SECTION 16: OTHER INFORMATION

NFPA RATINGS

HEALTH: 3

FIRE: 1

REACTIVITY: 0

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