**MATERIAL SAFETY DATA SHEET**

**SECTION I**

**MANUFACTURER'S NAME:** ROQUETTE AMERICA, INC.  
**EMERGENCY PHONE #:** (319) 524-5757  
**ADDRESS:** 1417 Exchange Street, Keokuk, IA 52632

**CHEMICAL NAME AND SYNONYMS:** CORN STARCH  
**TRADE NAME AND SYNONYMS:** FRANK 621  
**CHEMICAL FAMILY:** CARBOHYDRATE  
**FORMULA:** \( \text{C}_{6}\text{H}_{12}\text{O}_{6} \)  
**CAS #:** 9005-25-8

**SECTION II - HAZARDOUS INGREDIENTS**

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>TLV</th>
<th>ALLOYS AND METALLIC COATINGS</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pigments</td>
<td>N/A</td>
<td>Base Metal</td>
<td>N/A</td>
</tr>
<tr>
<td>Catalyst</td>
<td>N/A</td>
<td>Alloys</td>
<td>N/A</td>
</tr>
<tr>
<td>Vehicle</td>
<td>N/A</td>
<td>Metallic Coatings</td>
<td>N/A</td>
</tr>
<tr>
<td>Solvents</td>
<td>N/A</td>
<td>Filler Metal plus Coating or Core Flux</td>
<td>N/A</td>
</tr>
<tr>
<td>Additives</td>
<td>N/A</td>
<td>Other</td>
<td>N/A</td>
</tr>
<tr>
<td>Others</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION III - PHYSICAL DATA**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boiling Point (°F):</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Bulk Density:</strong></td>
<td>Approx. 34 lbm./ft³</td>
</tr>
<tr>
<td><strong>Vapor Pressure (MM Hg.):</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Volatile:</strong></td>
<td>Approx. 13.5% (water)</td>
</tr>
<tr>
<td><strong>Vapor Density (Air-1):</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Solubility in Water:</strong></td>
<td>Insoluble in Cold Water</td>
</tr>
<tr>
<td><strong>Evaporation Rate:</strong></td>
<td>( \text{HA} )</td>
</tr>
<tr>
<td><strong>pH:</strong></td>
<td>4.5-7.0</td>
</tr>
<tr>
<td><strong>Appearance and Odor:</strong></td>
<td>White Powder, No Significant Odor</td>
</tr>
</tbody>
</table>

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*Guaranteed Plant*  
150 Northwestern Avenue, Quinette, IA 5221-2392  
Tel: (319) 524-5757  
Fax: (319) 524-1605

*Corporate Headquarters*  
1417 Exchange Street, P.O. Box 6447, Keokuk, IA 52632-6447  
Tel/Fax (319) 524-5577

*Kiskure Plant*  
1003 3rd Street, P.O. Box 6447, Keokuk, IA 52632-6447  
Tel/Fax (319) 524-5577

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PAGE 94
SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (° F):  N/A

FLAMMABLE LIMITS:
NOT DETERMINED

EXTINGUISHING MEDIA:
WATER SPRAY, CO₂, DRY CHEMICAL. ALL PER FOLLOWING NOTE.

SPECIAL FIRE FIGHTING PROCEDURES:
WHEN EXTINGUISHING A FIRE INVOLVING POWDERS, AVOID CREATING A DUST CLOUD THAT MAY POSE AN EXPLOSION HAZARD.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
AS WITH ALL POWDERED MATERIAL THAT CAN BURN, AVOID SUSPENSIONS IN AIR THAT MAY POSE AN EXPLOSION HAZARD IF ILLUMINATED.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: GENERAL OCCUP TLV-TWA FOR STARCH = 10 mg/m³.
GENERAL OSHA STANDARD FOR STARCH IS:

TWA PEL = 15 mg/m³ TOTAL PARTICULATE
TWA PEL = 5 mg/m³ RESPIRABLE PARTICULATE

EFFECTS OF OVEREXPOSURE:
EYES-IRRITATION AND IMPAIRED VISION DUE TO DUST.
SKIN CONTACT-CHEMICAL AND MECHANICAL INJURY (INCLUDING INJURY FROM VIGOROUS SKIN CLEANING).
INHALATION-IRRITATION OF RESPIRATORY TRACT AND INJURY TO NASAL HEPATOPALAE.
INGESTION-IRRITATION OF GASTROINTESTINAL TRACT.

EMERGENCY AND FIRST AID PROCEDURES:
SKIN-WASH WITH SOAP AND WATER. EYES-FLUSH WITH WATER FOR AT LEAST 15 MIN.
INHALATION-REMOVE TO FRESH AIR. IF RESPIRATORY SYMPTOMS DEVELOP, CONSULT MEDICAL PERSONNEL.
INGESTION-IF GASTROINTESTINAL IRRITATION DEVELOPS CONSULT MEDICAL PERSONNEL.
THIS MATERIAL IS NOT LISTED AS A CARCINOGEN BY IARC, NTP OR NIOSH.

SECTION VI - REACTIVITY DATA

STABILITY: STABLE UNDER NORMAL CONDITIONS.

INCOMPATIBILITY (Materials to avoid): STRONG OXIDIZING AGENTS.
HAZARDOUS DECOMPOSITION PRODUCTS:
COMBUSTION PRODUCTS (CARBON DIOXIDE, CARBON MONOXIDE)
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR UNDER NORMAL CONDITIONS.
SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

REMOVE SPILLED MATERIAL WITH A SCOOPE OR SHOVEL. TRACES OF RESIDUE MAY BE
REMOVED BY FLUSHING WITH WATER TO A SEWER CONNECTED TO AN APPROPRIATE
TREATMENT FACILITY.

WASTE DISPOSAL METHOD:

STARCH IS BIODEGRADABLE. DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND
FEDERAL ENVIRONMENTAL REGULATIONS.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type):

IF NEEDED, USE A NIOSH APPROVED RESPIRATOR FOR DUSTS WHERE TLEV IS >0.05 mg/m².

VENTILATION:

LOCAL EXHAUST: AS NEEDED TO MINIMIZE EXPOSURE. (NOTE: ENSURE THAT ALL
VENTILATING/DUST COLLECTION EQUIPMENT IS DESIGNED SO AS TO PREVENT IGNITION OF
DUST).

PROTECTIVE GLOVES: IMPERMEABLE GLOVES

EYE PROTECTION:

SAFETY GLASSES WITH SIDE SHIELDS. CHEMICAL GOGGLES IF DUST IS PRESENT.

OTHER PROTECTIVE EQUIPMENT: NOT NORMALLY REQUIRED.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

STORE IN TIGHTLY CLOSED CONTAINERS IN A COOL, DRY PLACE AWAY FROM OXIDIZING
AGENTS.

OTHER PRECAUTIONS:

HANDLE WITH CAUTION AS APPROPRIATE FOR POWDERED MATERIALS.

THE ABOVE DATA HAS BEEN COMPILED FROM SOURCES WHICH WE, ROQUETTE AMERICA, INC., BELIEVE TO BE DEPENDABLE
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