

NATIONAL CASEIN® COMPANY
MATERIAL SAFETY DATA SHEET

No. K-27

SECTION I General Information	Emergency Telephone Number
Company Name and Address: National Casein® Company 601 West 80th Street Chicago, Illinois 60620	Business Hours: 773-846-7300 24-Hour Emergency: Chemtrec 1-800-424-9300
	Latest Revisions: 4/99 Supersedes: 2/99

Trade Name(s) and Synonyms:

192-59-1 Series, 192-59-2 Series

Liquid Crosslink Catalyst

SECTION II Hazardous Ingredients	Approx %	Exposure Limits
Aluminum Chloride (7446-70-0)	8	TLV 2 mg/m ³ (ACGIH) REL 2 mg/m ³ (NIOSH)
Hydrochloric Acid* (7647-01-0)	17	Ceiling PEL 5 ppm (OSHA) Ceiling PEL 7 mg/m ³ (OSHA) Ceiling TLV 5 ppm (ACGIH) Ceiling TLV 7.5 mg/m ³ (ACGIH)

SECTION III Physical and Chemical Characteristics

Boiling Point (F): 212°

Specific Gravity: 1.23

% Volatile (Approx.): 50

Physical and Chemical Descriptions:

Water solution of acidic salts.

Color: Clear to yellow or brown

Odor: Slight

Formulated Product Mixture

SECTION IV Physical Hazards (Fire and Explosion)

Flash Point: N/A (Water base)

Extinguishing Media: Water, CO₂, Foam

Hazardous Decomposition Products: In a fire situation, may release hydrochloric acid and possibly hydrogen. Extreme heat may also cause the product to decompose, producing toxic fumes, possibly including chlorine compounds.

Unusual Fire and Explosion Hazards/Procedures: Hydrochloric acid reacts with metals. May evolve to hydrogen which is flammable and explosive in air. Hydrochloric acid is irritating to the respiratory tract; self-contained breathing apparatus should be worn by fire fighters.

SECTION V Health Hazard Data

Exposure Limits: Not applicable for mixture. See Section II.

Primary Route of Entry (Target Organs):

Contact: Eyes, skin

Inhalation: Respiratory tract

Ingestion: Throat, esophagus, stomach

Emergency and First Aid Procedures:

Eyes: Immediately flush with water for 20 minutes. Hold eyelids apart to better irrigate eyes. Seek medical attention.

Skin: Wash off thoroughly with soap and water. Remove contaminated clothing and launder prior to reuse. Seek medical attention.

Ingestion: Drink large quantities of milk or water. Do not induce vomiting. If vomiting occurs, give fluids again. Do not give anything by mouth to an unconscious person. Consult physician or poison control center.

Inhalation: Remove to fresh air. Give artificial respiration if victim is not breathing. Give oxygen if breathing is labored. Immediately contact medical assistance.

Chronic Health Hazards: None known.

Effects of Overexposure: Product is corrosive. Contact with liquid, mist, or vapor can cause immediate irritation or corrosive burns to all human tissue. Inhalation of excessive concentrations of hydrogen chloride vapors produces severe irritation of the upper respiratory tract, resulting in coughing, burning of the throat, and a choking sensation. Contact with eyes may cause severe irritation. If acid is not quickly irrigated from eyes, permanent damage may result. Repeated skin contact may cause dermatitis. Can deteriorate tooth enamel. Ingestion may cause severe burning to mouth, throat, and esophagus. Swallowing, intense thirst, and nausea may be symptoms of ingestion.

Carcinogenic Status: No components of this product, present at 0.1% or greater, are listed by OSHA, NTP, IARC, or ACGIH as carcinogens.

Conditions Aggravated by Exposure: Hydrogen chloride will aggravate breathing disorders.

SECTION VI Chemical Hazard Data (Reactivity)

Stability (Conditions to Avoid): Stable when properly handled and contained. Avoid heat and moisture.

Incompatibility (Materials to Avoid): Hydrochloric acid is reactive with metal surfaces and oxidizing agents.

Hazardous Decomposition Products: May generate acidic fumes and/or hydrogen gas. Chlorine compounds may be produced when hydrochloric acid is exposed to heat.

SECTION VII Spill or Leak Procedures

Steps to be taken if Released or Spilled: Dike with absorbent material to prevent release to sewer system, groundwater, surface water, or any other body of water. Scoop up with absorbent material into suitable container for disposal.

Waste Disposal Method: Dispose according to federal, state, and local regulations.

SECTION VIII Special Protection Information

Ventilation: Recommended to maintain exposure below the guidelines. Ensure adequate ventilation when product is used in an enclosed area.

Respiratory Protections: Required if exposure limits are exceeded.

Eye Protection: A chemical splash face shield in addition to safety glasses/goggles are recommended.

Protective Gloves: Neoprene, rubber or PVC gloves are required.

Other Protective Equipment: Protective clothing to protect person from sprays and splashes is recommended. A safety shower/eyewash is required when working with corrosives. See OSHA 1910.151 and ANSI Z-358.1 for actual requirements.

SECTION IX Special Precautions/Procedures/Comments

Precautions in Handling and Storing: Avoid contamination and extreme temperatures. Keep container closed. Wear protective equipment to avoid splashes and vapors. Store containers in a cool, dry location away from direct sunlight, sources of intense heat, or where freezing may occur.

Comments: In normal use, the Hazard Level of this product is medium.

SARA, TITLE III, SEC. 313 NOTIFICATION
See Section II - Chemicals marked with an asterisk (*) are subject to reporting requirements of Sec. 313.

NATIONAL CASEIN® PRODUCT HAZARD RATING
REALISTIC FOR USE:
(NONE-LOW-MEDIUM-HIGH)
HEALTH - Medium (2)
FIRE - None (0)
REACTIVITY - Medium (2)

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, National Casein® Company makes no warranty with respect thereto and disclaims all liability from reliance thereon.