

KENRICH PETROCHEMICALS, INC.
MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND MANUFACTURER'S IDENTIFICATION

Manufacturer: Kenrich Petrochemicals, Inc.
140 East 22nd Street
P.O. Box 32
Bayonne, NJ 07002

Information Phone: 201-823-9000
Emergency Phone: 201-823-9000

Product Name: KEN-REACT® NZ 37
Product Code: KRLZ37T450
CAS #: 146955-66-0
Chemical Family: Organo-Zirconate

SECTION 2: COMPOSITION/INFORMATION ON COMPONENTS

Chemical Name: Zirconium IV, bis 2,2(bis-2-propenolatomethyl)butanolato,bis-
(para-aminobenzoato-O).....46%
2-Pyrrolidinone,1-ethenyl-.....(CAS# 88-12-0).....54%

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview: Brown liquid with an alcoholic odor. It presents little or no immediate significant hazard if spilled. It presents no unusual hazard if involved in a fire, however, upon thermal decomposition it may emit toxic fumes.

Breathing: This substance is a respiratory tract irritant, use respirator.

Skin Contact: Prolonged or repeated skin contact will cause skin irritation, avoid contact.

Eye Contact: Contact with eyes will cause severe eye irritation, avoid eye contact.

Swallowing: May be harmful if swallowed.

Inhalation: Respiratory tract irritant.

Long Term Health Effects: 2-Pyrrolidinone,1-ethenyl- is a possible cancer hazard based on animal studies. Caused liver damage in rats by oral and inhalation exposures: 100mg/Kg-Oral, 15 ppm subacute inhalation.

Conditions Aggravated by Exposure: Not known.

Original MSDS: 01/01/90 **1st Revision:** 01/09/97
2nd Revision: 05/01/2000
3rd Revision: APRIL 2010

SECTION 4: FIRST AID MEASURES

Skin: Wash with soap and water. Get medical attention if irritation develops or persists.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, holding eyelids apart. Get immediate medical attention if irritation or other symptoms develop.

Swallowing: Get immediate medical attention. Never give anything by mouth to an unconscious person.

Breathing: If exposed to excessive levels of vapors or mists, remove to fresh air and get immediate medical attention if cough or other symptoms develop.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point 160 °F 71 °C

Method TCC

Lower Explosive Point Not determined

Upper Explosive Point Not determined

Auto-Ignition Temperature . . . Not determined

Extinguishing Media Foam, CO₂, Dry Chemical, Water spray

Firefighting Procedure: Evacuate area and fight fire from a safe distance. Wear self-contained breathing apparatus pressure-demand (MHSA/NIOSH approved or equivalent) and full protective gear.

Special Firefighting Procedure: As with any fire, wear self-contained breathing apparatus pressure-demand (MHSA/NIOSH approved or equivalent) and full protective gear. Use caution when using water as frothing may occur and thereby increasing fire intensity.

Unusual Fire and explosion Hazards . . . May emit toxic fumes upon thermal decomposition.

Sensitivity to Explosion by Mechanical ImpactNone

Sensitivity to Explosion by Static DischargePotential exists

Conditions of FlammabilityMaterial will burn - avoid sources of ignition and also avoid temperatures that are within range of the flash point.

SECTION 6: ACCIDENTAL RELEASE MEASURES

General.This material should be prevented from contaminating soil for from sewerage and drainage systems and bodies of water. Isolate hazard/spill area. Keep unnecessary and unprotected personnel from enter area.

Small Spill Absorb spill with inert material, then place in a chemical waste container.

Large Spill Shut off leak, if safe to do so. Clean up spills immediately, observing precautions in Protective Equipment Section. Contain spilled liquid with sand or earth.

Retain all contaminated water and soil for removal and treatment.

SECTION 7: HANDLING AND STORAGE

Handling. . . .This material does present a significant skin and eye hazard. Skin and eye contact should be prevented as good industrial hygiene practice. Wearing of protective gloves and eye protection is recommended. Always establish the practice of washing arms and hands, as with any chemical, after handling.

Storage. . . .Store in a cool, dry and well ventilated area. Avoid contact or exposure to incompatible substances. Also avoid those areas where there are ignition sources.

SECTION 8: EXPOSURE CONTROLS - PERSONAL PROTECTION**Exposure Levels:**

Component	OSHA		ACGIH	
	TWA	STEL	TWA	STEL
Ken-React NZ 37 2-Pyrrolidinone,1-ethenyl-	Not established		Not established	
	0.1 ppm recommended exposure limit			

Engineering Controls: Source(s) of fine spray, mist or vapor should be controlled with local exhaust ventilation.

Respiratory Protection: A NIOSH/MHSA approved air purifying respirator may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, if established. Consult with respirator's manufacturer to determine the appropriate type of equipment for a given application. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Eye/Face Protection: Always use safety glasses. Where contact with the eyes is likely, use chemical goggles. Use a face shield as needed.

Skin Protection: Wear impervious gloves and chemical protective clothing, including impervious sleevelets, overalls, aprons, or boots as needed to prevent contact with the skin.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

AppearanceBrown liquid
OdorAlcoholic
Boiling Range220 °F
Specific Gravity (relative to water) 1.14 @ 77°F
Vapor Density (relative to air)3.80
Vapor Pressure (mm Hg)0.10
pH 7.0
Solubility in Water Less than 1%
Freezing/Melting Point Not established
Octanol/Water Partition Coefficient Not established
Odor ThresholdNot established
Flash Point (TCC)160 °F 71 °C
Auto-Ignition Temperature Not established
Explosive Properties Not established
Oxidizing PropertiesNone
Viscosity @ 77°75 cps
Evaporation Rate (relative to n-butyl acetate)... .Slower

SECTION 10: STABILITY AND REACTIVITY

Stable Yes

Strong Oxidizer No

Hazardous PolymerizationNot prone to hazardous polymerization.

IncompatibilityOxidizers, acids, alkaline materials.

Conditions to AvoidKeep from contact with oxidizers, acids, alkaline materials.
Avoid sources of ignition.

Hazardous Decomposition Products Oxides of carbon and nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

Oral LD50 >500 mg/kg rats

Primary Dermal Irritation... V-pyrol component-minimal irritation-rabbit

Non-mutagenic - Ames test with S-9 activation

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological and Chemical Fate InformationNot determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste DisposalDispose of in accordance with all federal, state and local regulations.

Container DisposalDispose of in accordance with all federal, state and local regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Shipping NameNot regulated

Hazard Class

Packing Group

UN/NA No.

DOT LabelsNone

Subsidiary LabelNone

DOT Placard(BULK) None

IMO Shipping Name Not regulated

Hazard Class

Packing Group

UN No.

IMO LabelsNone

Subsidiary Label None

IATA Shipping Name Not regulated

Hazard Class

Packing Group

UN No.

IATA Labels

Subsidiary Label None

SECTION 15: REGULATORY INFORMATION

SARA 311/312 Chronic Health Hazard Not determined

SARA 311/312 Acute Health Hazard Irritant

SARA 311/312 Fire HazardCombustible liquid

SARA 311/312 Sudden Pressure No

SARA 311/312 Reactivity Hazard No

SECTION 15: REGULATORY INFORMATION (continued)

Section 302 - Extremely Hazardous Ingredient(s)None

CERCLA Hazardous Substance(s) None

Section 313 Toxic Chemical(s) None

NJ Environmental Hazardous Substances ListNot Listed

Other States ListingsNot listed to our knowledge.

California Proposition 65 Ingredients None

Reported in TSCA InventoryYes

TSCA RulingsNo

Reported in EEC Inventory No

Reported in Canada Inventory No

SECTION 16: OTHER INFORMATION

HMIS Hazard Rating Health = 1 ; Fire = 1 ; Reactivity = 0 ;

NFPA Hazard Rating Health = 1 ; Fire = 1 ; Reactivity = 0 ;

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