

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[®] KR 38S**
Product Code: **KR38**
CAS # **68585-78-4**
Chemical Family: **Monoalkoxy Titanates**

Section 2: COMPOSITION/INFORMATION ON COMPONENTS

<u>Component</u>	<u>CAS #</u>	<u>Range % by Wt.</u>	<u>R-Groups</u>
Titanium IV 2 - Propanolato, tris (dioctyl) pyrophosphato - O.	68585-78-4	> 75%	
Isopropanol	67-63-0	<3	
Iso Octyl Alcohol	26952-21-6	<5	
Diisooctyl Phosphite	3658-48-8	<20	

Section 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Yellow-amber 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 has the potential of being a respiratory tract irritant.

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

Eye Contact: Contact with eyes will cause eye irritation.

Swallowing: May be harmful if swallowed.

Inhalation: There is the potential for respiratory tract irritation.

Long Term Health Effects: Not known.

Conditions Aggravated by Exposure: Not known.

Original MSDS: 02/21/95; 1st Revision: 10/25/95; 2nd Revision 08/12/96
3rd Revision: 01/15/01

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	125°F	52°C
Method	TCC	
Lower Explosive Point	Not determined	
Upper Explosive Point	Not determined	
Auto-ignition Temperature	Not determined	
Extinguishing Media	Foam, CO ₂ , Dry chemical, Water spray	

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

Special Fire Fighting Procedure: As with any fire, wear self-contained breathing apparatus pressure-demand (MHSA/NIOSH approved or equivalent) and full protective gear. Using water can cause frothing with the potential for increasing fire intensity.

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

Sensitivity to Explosion by Mechanical Impact: None

Sensitivity to Explosion by Static Discharge: Potential exists

Conditions of Flammability: Material 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 or from sewage and drainage systems and bodies of water. Isolate hazard/spill area. Keep unnecessary and unprotected personnel from entering 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: Although this material does not present a significant skin or eye hazard, skin and eye contact should be prevented as good industrial hygiene practice. Wearing of protective gloves and eye protection is recommended. Always wash arms and hands after handling, as with any chemical.

STORAGE: Store in a cool, dry and well ventilated area away from strong oxidizers and acids. Avoid those areas where there are ignition sources.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Levels:**

Component	OSHA		ACGIH	
	TWA	STEL	TWA	STEL
68585-78-4	Not Established		Not Established	
67-63-0	Not Established		980 mg/m ³	

Engineering Controls: Source 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 skin.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance Yellow-Amber liquid
Odor Alcoholic
Boiling Range 170°F
Specific Gravity (relative to water @ 60°F 1.10
Vapor Density (relative to air) Heavier than air
Vapor Pressure (mm Hg) Not established
pH 2.5
Solubility in Water Insoluble
Freezing/Melting Point Not established
Octanol/Water Partition Coefficient Not established
Odor Threshold Not established
Flash Point (TCC) 125°F 52°C
Auto-Ignition Temperature Not established
Explosive Properties Not established
Oxidizing Properties None
Viscosity @ 77°F 300 - 1500 cps
Evaporation Rate (relative to n-butyl acetate) Slower

Section 10: STABILITY AND REACTIVITY

Stable Yes
Strong Oxidizer No
Hazardous Polymerization Not prone to hazardous polymerization.
Incompatibility Oxidizers, acids, alkaline materials, zinc, aluminum.
Conditions to Avoid Keep from contact with oxidizers, acids, alkaline materials. Avoid sources of ignition.
Hazardous Decomposition Products Oxides of carbon and phosphorous.

Section 11: TOXICOLOGICAL INFORMATION

Toxicology Oral LD50 ----> 5.0 g/kg
Primary Dermal Irritation --- 6.3 - severe irritant (rabbit)
Non-mutagenic - Ames test with S-9 activation

Section 12: ECOLOGICAL INFORMATION

Ecotoxicological and Chemical Fate Information Not determined

Section 13: DISPOSAL CONSIDERATIONS

Waste DisposalDispose of in accordance with all federal, state, and local regulations.
USEPA Hazardous Waste D001 - Ignitable.

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

Section 14: TRANSPORT INFORMATION

DOT Shipping Name Flammable Liquid, n.o.s.
Hazard Class 3
Packing Group III
UN/NA No UN 1993
DOT Labels Flammable
Subsidiary Label None
DOT Placard (BULK). . .Flammable

IMO Shipping Name Flammable Liquid, n.o.s.
Hazard Class 3
Packing Group III
UN No UN 1993
IMO Labels Flammable
Subsidiary Label None

IATA Shipping Name Flammable Liquid, n.o.s.
Hazard Class 3
Packing Group III
UN No UN 1993
IATA Labels Flammable
Subsidiary Label None

Section 15: REGULATORY INFORMATION

SARA 311/312 Chronic Health Hazard Not determined
SARA 311/312 Acute Health Hazard Severe Irritant
SARA 311/312 Fire Hazard Flammable 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 None

Section 313 Toxic Chemicals Isopropanol

NJ Environmental Hazardous Substances List Not Listed

Other States ListingsNot listed to our knowledge

California Proposition 65 Ingredients None

Reported in TSCA Inventory Yes

TSCA RulingsNone to our knowledge

Reported in EEC Inventory Yes

Reported in Canada InventoryYes

Section 16: OTHER INFORMATION

HMIS Hazard Rating Health = 2; Fire = 3; Reactivity = 0

NFPA Hazard RatingHealth = 2; Fire = 3; Reactivity = 0

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