

Safety Data Sheet (SDS)

Section 1: Identification

1.1 Product Identification

- Product Name: ZIRCONIUM IV NEOALKANOLATO, TRIS(DIISOCTYL-PHOSPHATO-O))
- Product Number: Sigma-2602025172
- Brand: Sigma
- CAS Number: 117101-65-2
- EC Number: Not specified
- Molecular Formula: $C_{60}H_{123}O_{15}P_3Zr$
- Molecular Weight: 1268.77 g/mol
- Website: [Sigma Chemical](#)

1.2 Supplier Details

- Company Name: Sigma Chemical Co., Ltd.
- Address: Room 2-1-2301, Jiahe Xinxing, No.130, Shandong Road, Shibei District, Qingdao City, Shandong Province, China
- Phone Number: +8618661891880
- Email: chemweb3@foxmail.com
- Business Hours:
 - Monday to Friday: 9:00 AM - 6:00 PM
 - Saturday: 9:00 AM - 1:00 PM

– Sunday: Closed

1.3 Emergency Contact Number

- Emergency Contact: +8618661891880

1.4 Recommended Use and Restrictions

- Recommended Use: For research and development purposes only. Not for use as a drug, household product, or other.

Section 2: Hazard Identification

2.1 GHS Classification

- Physical Hazards:
 - Flammable Liquids: Category 4, H227 (Combustible liquid)
- Health Hazards:
 - Serious Eye Damage/Eye Irritation: Category 2, H319 (Causes serious eye irritation)
- Environmental Hazards: Not classified

2.2 GHS Label Elements

- Pictogram: Exclamation mark
- Signal Word: Warning
- Hazard Statements:
 - H227: Combustible liquid
 - H319: Causes serious eye irritation
- Precautionary Statements:
 - Prevention:
 - P210: Keep away from flames and hot surfaces – No smoking
 - P264: Wash thoroughly after handling

- P280: Wear protective gloves/protective clothing/eye protection/face protection

– Response:

- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists: Get medical advice/attention.
- P370+P378: In case of fire: Use dry chemical, CO₂, water spray, fog, or foam to extinguish.

– Storage:

- P403: Store in a well-ventilated place

– Disposal:

- P501: Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Physical and Chemical Hazards

- Physical and Chemical Hazards: Combustible liquid. Ignition sources may release hazardous products.

2.4 Health Hazards

- Health Hazards:

– H319: Causes serious eye irritation

2.5 Environmental Hazards

- Environmental Hazards: No environmental hazards identified based on current information.

Section 3: Composition/Information on Ingredients

3.1 Substance

- Synonyms: Ken-React NZ 12, Isooctanol hydrogen phosphate zirconium complex, NZ 12, ZCA-N12, Zirconium IV neoalkanolato, tris(diisooctyl)phosphato-O

- Molecular Formula: C₆₀H₁₂₃O₁₅P₃Zr
- Molecular Weight: 1268.77 g/mol
- CAS Number: 117101-65-2
- EC Number: Not specified
- Hazardous Components:
 - Component: ZIRCONIUM IV NEOALKANOLATO, TRIS(DIISOCTYL-PHOSPHATO-O))
 - Classification:
- Flammable Liquids: Category 4, H227
- Serious Eye Damage/Eye Irritation: Category 2, H319

Section 4: First Aid Measures

4.1 First Aid Measures

- Inhalation: Move to fresh air. Call a physician if symptoms develop or persist.
- Skin Contact: Remove contaminated clothing. Wash with soap and water. Get medical attention if irritation develops and persists.
- Eye Contact: Flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
- Ingestion: Rinse mouth for at least 15 minutes. Seek medical attention.

4.2 Most Important Symptoms and Effects

- Symptoms: Eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

4.3 Immediate Medical Attention and Special Treatment

- Medical Treatment: Treat symptomatically. Get medical attention if any discomfort develops.

Section 5: Firefighting Measures

5.1 Extinguishing Media

- Suitable Extinguishing Agents: Dry chemical, CO₂, water spray, fog, or foam. Use fire extinguishing methods suitable for surrounding environment.

5.2 Specific Hazards Arising from the Chemical

- Hazardous Combustion Products: By heating and fire, toxic vapors/gases may be formed (e.g., carbon oxides, phosphorus oxides, zirconium compounds).

5.3 Firefighting Precautions

- Protective Equipment: Move containers from fire area if you can do it without risk. Use water spray to cool unopened containers. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

- Personal Precautions: Ensure adequate ventilation. Use personal protective equipment as required. Keep away from open flames, hot surfaces, and sources of ignition. Avoid contact with skin, eyes, or clothing.
- Environmental Precautions: Do not allow to enter drains, sewers or watercourses. Prevent seepage into sewage systems, workpits, and surface or ground water.

6.2 Methods and Materials for Containment and Clean-Up

- Containment: Stop leak if you can do so without risk. Dike the spilled material, where this is possible.
- Clean-Up: For small spills, absorb spillage with non-combustible, absorbent material (e.g., sand, diatomite, acid binders, universal binders) or collect in a tightly sealable container. For large spills, enclose with banks to prevent outflow and lead the leakage to a safe place for disposal.

6.3 Reference to Other Sections

- Other Sections: See Section 8 for personal protection equipment and Section 13 for disposal information.

Section 7: Handling and Storage

7.1 Handling Precautions

- Handling: Ensure adequate ventilation. Wear personal protective equipment/face protection. Keep away from open flames, hot surfaces, and sources of ignition. Avoid contact with skin, eyes, or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid ingestion and inhalation.

7.2 Storage Conditions

- Storage: Store in a dry, cool, and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks, and flame. Store in a flammable area. Incompatible materials include strong oxidizing agents, strong acids, strong bases, strong reducing agents, and water (may react).

Section 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- Exposure Limits: No occupational exposure limits established by regional regulatory authorities.

8.2 Exposure Controls

- Engineering Measures: Ensure adequate ventilation, especially in confined areas.