# Avocado Research Chemicals Ltd - Material Safety Data Sheet 12194

### 1. IDENTIFICATION OF SUBSTANCE AND SUPPLIER

Name On Label Zirconium(IV) nitrate, tech.

Product Number

Supplier Johnson Matthey Catalog Company Inc.

12194

30 Bond Street, Ward Hill, Massachusetts, 01835-8099

Emergency Telephone Number: (978) 521-6300; CHEMTREC: (800) 424-9300

Alternative Names None in common use.

### 2. COMPOSITION AND INFORMATION ON COMPONENTS

Name Zirconium(IV) nitrate, tech.

Minor Impurities Not determined

CAS No. 13746-89-9 EINECS No. 2373249 EEC No.

### 3. HAZARDS IDENTIFICATION

**Designation** CORROSIVE ~ OXIDISING AGENT ~ HARMFUL

Risk Phrases R8 Contact with combustible material may cause fire.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R34 Causes burns.

### 4. FIRST AID MEASURES

**Inhalation** Remove to fresh air. In cases of serious discomfort seek medical attention.

**Eye Contact** Flush with copious amounts of water for at least 15 minutes. Seek urgent medical attention. **Skin Contact** Remove contaminated clothing. Wash affected area with soap and water. Rinse thoroughly. In

case of skin damage seek urgent medical advice. Show the physician the container details.

Ingestion Rinse out mouth and drink lots of water. In case of tissue damage or other symptoms, seek medical

attention.

### 5. FIRE FIGHTING MEASURES

may be involved. In general, water-based extinguishers should not be used for fires involving

organic materials. Use carbon dioxide or dry powder.

**Protective Equipment** Wear self-contained breathing apparatus and protective clothing.

Hazardous Products of Combustion may include: oxides of nitrogen, nitric acid.

### 6. ACCIDENTAL RELEASE MEASURES

Personal Protection Avoid inhalation or contact of spilled material with skin or clothing. Wear protective equipment

including rubber gloves, and eye protection. Keep unprotected persons away.

**Environmental Protection** Take precautions to ensure product does not contaminate the ground or enter the drainage system.

Collection Mix with vermiculite or proprietary absorbent material and transfer to sealed containers for disposal.

7. HANDLING AND STORAGE

Handling Chemicals should be used only by those trained in handling potentially hazardous materials. Rubber

gloves, eye protection and protective clothing should be worn. Operations should be carried out in

an efficient fume hood or equivalent system.

**Storage** Store in tightly sealed containers in a cool place.

Protect from moisture.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Respiratory** Avoid inhalation of product. Handle in an efficient fume hood or equivalent system.

**Eye**Avoid eye contact. Wear safety spectacles, goggles or, for larger quantities, a full face mask. **Hands and Body**Avoid eye contact. Wear safety spectacles, goggles or, for larger quantities, a full face mask.

Corrosive product. Avoid skin contact. Wear corrosive-resitant gloves and, for larger quantities, full

arm and body protection. Wash hands thoroughly after handling.

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## 12194 continued.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance White hygroscopic crystals

Physical Constants Not available Molecular formula  $N_4O_{12}Zr$ 

Formula Wt. Water solubility V sol Density **Flash Point** Not available

### 10. STABILITY AND REACTIVITY

Specific Hazard

Incompatibilities Strong acids. Strong reducing agents.

Decomposition Hazardous products of decomposition may include: oxides of nitrogen, nitric acid.

### 11. TOXICOLOGICAL INFORMATION

RTECS No. ZH8750000

**Acute Toxicity** LD<sub>50</sub>: ORL-RAT 2290mg/kg

Harmful by inhalation, in contact with skin and if swallowed. Causes burns.

339.24

Not available

### 12. ECOLOGICAL EFFECTS

General Take care to prevent chemicals from entering the ground, water courses or drainage systems.

### 13. DISPOSAL CONSIDERATIONS

Disposal Disposal should be via an approved contractor and should take full account of local regulations.

### 14. TRANSPORT INFORMATION

**UN Number** 

**Land Transport** ADR/RIC Code/Class Packing Group II 5.1 **Maritime Transport** IMDG Code/Class Packing Group II 5.1 Air Transport IATA Code/Class 5.1 Packing Group II

### 15. REGULATORY INFORMATION

CAS No. 13746-89-9 **EINECS No.** 2373249 **EEC No.** UN No. 2728 RTECS No. ZH8750000

CORROSIVE ~ OXIDISING AGENT ~ HARMFUL **Hazard Indication Risk & Safety Phrases** Contact with combustible material may cause fire.

Harmful by inhalation, in contact with skin and if swallowed.

Causes burns.

Keep away from combustible material.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Take off immediately all contaminated clothing.

Wear suitable protective clothing, gloves and eye/face protection.

**TSCA** Listed substance.

### 16. OTHER INFORMATION

It must be recognised that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Date of Last Review: 3rd August 1998 **Date Printed:** 18th September 1998