Section 1: Identification

Chemical family: Uranyl zinc acetate, Zinc bis(acetato-O)dioxouranate, Zinc uranyl acetate

Emergencies
Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...
Worldwide phone: 1-(703)-527-3887
Worldwide FAX: 1-(703)-741-6090
Toll-free phone: 1-(800)-424-9300 USA only

Product or Trade Name: Uranyl Zinc Acetate

CAS #’s: 10138-94-0 (Depleted Uranium)

Chemical Formula: ZnUO$_4$(CH$_3$COO)$_2$

Hazardous Material Information System USA
Health: 3
Fire Hazard: 0
Reactivity: 0
Personal Protection: 0

NFPA Rating (estimated)
Health: 3
Flammability: 0
Reactivity: 0

Section 2: Composition

Molecular formula: ZnUO$_4$(CH$_3$COO)$_2$ ~100%
CAS No: 10138-94-0
EINECS No: 233-390-8
Section 3: Hazard Identification

Emergency overview:
Highly toxic (USA). Very Toxic (EU). Dangerous for the environment. Very toxic by inhalation and if swallowed. Danger of cumulative effects. Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment. Radioactive material.

Target Organs: Liver, Kidneys

Potential Health Effects
Eye: Absorption of soluble uranium compounds thorough eye tissue is reported.
Skin: No information found.
Ingestion: Toxic by ingestion
Inhalation: Moderate hazard on inhalation. Coughing, sneezing & breathing difficulty may occur.
Chronic: Damage to Kidneys & Liver may occur after continued exposure.

Section 4: First Aid Measures

Eyes: In case of eye contact, flush eyes with large amounts of water for at least 15 minutes, occasionally lifting upper and lower eyelids.
Skin: In case of skin contact, wash immediately with plenty of soap and water.
Ingestion: If person is conscious, wash out mouth with water. Seek medical attention.
Inhalation: If inhaled, remove to fresh air. If breathing becomes difficult, seek medical attention.

Section 5: Fire Fighting Measures

General Information: Emits toxic fumes under fire conditions. As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, or appropriate foam.

Section 6: Accidental Release Measures

General Information: Handle as a radioactive spill.

Spills/Leaks: Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7: Handling and Storage

Handling: Avoid inhalation and contact with eyes, skin and clothing. Avoid prolonged ore repeated exposure.

Storage: Store in cool, dry place in tightly closed container.
Section 8: Exposure Controls and Personal Protection

**Engineering Controls:** Safety shower and eye bath must be readily available. Use only in a chemical fume hood. Use with adequate ventilation.

**Personal Protective Equipment**
**Eyes:** Chemical safety goggles  
**Skin:** Use chemical resistant gloves.  
**Clothing:** Protective clothing such as long sleeves or a lab coat should be worn.  
**Respirators:** 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.

Section 9: Physical and Chemical Properties

**Physical Data**
- **Physical State:** solid  
- **Appearance:** yellow crystalline solid  
- **Odor:** slight odor of vinegar  
- **pH:** n/a  
- **Melting point:** n/a  
- **Boiling point:** n/a  
- **Vapor density:** n/a  
- **Vapor pressure:** n/a  
- **Density (g cm⁻³):** n/a  
- **Flash point:** n/a  
- **Explosion limits:** n/a  
- **Autoignition temperature:** n/a  
- **Water solubility:** soluble  
- **Molecular Formula:** ZnUO₂(CH₃COO)₂  
- **Molecular Weight:** 485.497

Section 10: Stability and Reactivity

**Chemical Stability:** Stable  
**Conditions to Avoid:** Protect from moisture.  
**Incompatibility with Other Materials:** Oxidizing agents  
**Hazardous Decomposition of Products:** Carbon monoxide, Carbon dioxide, Uranium oxides, Zinc/Zinc oxides  
**Hazardous Polymerization:** Will not occur.

Section 11: Toxicological Information

Very toxic if swallowed or inhaled. Danger of cumulative effects - possible carcinogen, mutagen or teratogen. (Unenriched uranium compounds, while radioactive, typically have low radioactivity, so their toxicity is determined principally by their chemical nature.)

**Toxicity data**
- n/a

**Risk phrases**
- R26 Very toxic by inhalation  
- R28 Very toxic if swallowed  
- R33 Danger of cumulative effects
Section 12: Ecological Information
No data available

Section 13: Disposal Considerations
Contact a licensed professional waste disposal service to dispose of this material. Dispose of spilled material as radioactive waste. Consult local, state and federal regulation on the disposal of radioactive waste. Observe all federal, state, and local regulations.

Section 14: Transport Information
UN #: 2910
Hazard Class: 7
Packing Group: none

Section 15: Regulatory Information
United States: Indication of Danger: Highly Toxic (USA) Very Toxic (EU)
TSCA: This material is listed on the TSCA inventory
Health & Safety Reporting List: n/a
Chemical Test Rules: n/a
Section 12b: n/a
TSCA Significant New Use Rule: n/a
SARA: Not listed
OSHA:

State (Individual states in the USA) Not listed under individual state lists.
California Prop. 65: This material is considered a carcinogen under California Prop. 65.
European/International Regulations: European Labeling in Accordance with EC Directives

Hazard Symbols: R – T+ - N
Risk Phrases:
  R26 Very toxic by inhalation
  R28 Very toxic if swallowed
  R33 Danger of cumulative effects
  R51 Toxic to aquatic organisms
  R53 May cause long-term adverse effects in the aquatic environment

Safety Phrases:
  S20 When using do not smoke
  S21 Do not breathe dust
  S45 In case of accident or if you feel unwell, seek medical advice immediately
  (show the label where possible)
  S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Canada This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

WHMIS This material has a WHMIS classification of D2A.

DSL/NDSL
  DSL: no
  NDSL: yes
Section 16: Other Information

Disclaimer of Liability:

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