

Ransom & Randolph

1. Product and Company Identification

<i>Product Name</i> ReDip™ Indicator	<i>MSDS Code Number</i> 022
<i>Trade Name & Synonyms</i>	<i>Date of Last Revision</i> 06/06
<i>Chemical Name</i> Organic salt	<i>Manufacturer</i> Ransom & Randolph
<i>C.A.S. Number</i>	<i>Address</i> 3535 Briarfield Blvd, Maumee, OH 43537
<i>Grades or Minor Variant Identities</i>	<i>Information Telephone Number</i> 419/865-9497 FAX 419/865-9997
<i>Product Use</i> Investment casting	<i>Emergency Telephone Number</i> 419/865-9497

2. Composition of Ingredients

<i>Hazardous Components</i>	<i>C.A.S. Number</i>	<i>%</i>
Dipotassium fluorescein (C ₂₀ H ₁₂ O ₅ K ₂)	6417-85-2	<5

3. Hazardous Identification

Emergency Overview

<i>Routes of Exposure</i>	<i>Signs & Symptoms</i>	<i>Single, Repeated, or Lifetime Exposure</i>	<i>Severity (Mild, Moderate, Severe)</i>	<i>Acute and Chronic Health Effect(s)</i>	<i>Target Organ(s)</i>
<i>Eye</i>					
<i>Skin</i>	May discolor skin				
<i>Inhalation</i>					
<i>Ingestion</i>					
<i>Other</i>					

Medical Conditions Aggravated by Exposure

ReDip™ Indicator is non-toxic and non-hazardous.

Carcinogenicity (IARC, NTP)

None known

Potential Environmental Effects

Not listed

4. First Aid Measures

<i>Routes of Exposure</i>	<i>First Aid Instructions</i>	<i>Immediate Medical Attention</i>	<i>Delayed Effects</i>
<i>Eye</i>	Flush with flowing water at least 15 minutes	If irritation persists, see a physician.	
<i>Skin</i>	Wash thoroughly with soap and water.		
<i>Inhalation</i>	Remove to fresh air.		
<i>Ingestion</i>	Get medical attention.		

<i>Other</i>			
<i>Note to Physicians (Treatment, Testing, and Monitoring)</i> Treat symptomatically. Never give fluids or induce vomiting if patient is unconscious or having convulsions.			
5. Fire and Explosion Data			
<i>Flashpoint: (Method)</i> N/A	<i>Flammable (Explosive) Limits in Air</i> LEL: N/A UEL: N/A		<i>Autoignition Temperature:</i> N/A
<i>Flame Propagation or Burning Rate (for solids):</i>	<i>Properties Contributing to Fire Intensity</i>	<i>Flammability Classification NFDA Rating:</i>	
<i>Extinguishing Media</i> Carbon dioxide, foam, dry chemical, water		<i>Extinguishing Media to Avoid</i>	
<i>Protection and Procedures for Firefighters:</i> Avoid eye and skin contact. Do not breathe fumes.			
<i>Unusual Fire and Explosion Hazards:</i> None			
6. Accidental Release Measures			
<i>Containment Techniques</i> Contain spill			
<i>Spill/Leak Clean-Up Procedures and Equipment</i> Soak up large spill residue and small spills with inert absorbent.			
<i>Evacuation Procedures</i>			
<i>Special Instructions</i>			
<i>Reporting Requirements</i>			
7. Handling and Storage			
<i>Handling Practices and Warnings</i> Normal warehouse handling			
<i>Storage Practices and Warnings</i> Normal warehouse storage			
8. Exposure Controls/Personal Protection			
<i>Ventilation General</i>	<i>Other Engineering Controls</i>		
<i>Routes of Entry:</i>	<i>Personal Protective Equipment (PPE) for Normal Use:</i>		<i>PPE for Emergencies:</i>
<i>Eye/Face</i>	Recommended		
<i>Skin</i>	Wear protective gloves		
<i>Inhalation</i>	None. Normal required.		
<i>General Hygiene Considerations and Work Practices</i> Wash up before eating, smoking, or using facilities.			
<i>Other Protective Measures and Equipment</i> Eye wash and shower.			

9. Physical and Chemical Characteristics

<i>Appearance</i> Red/green fluorescent liquid		<i>Odor</i>
<i>Normal Physical State:</i> X <i>Liquid</i> <i>Gas</i> <i>Solid</i>		<i>Boiling Point</i> 212.2°F <i>Melting Point</i> 32°F <i>Freezing Point</i> 32°F
<i>Specific Gravity or Density (H₂O=1)</i> 1.02	<i>Solubility in Water</i> 100%	<i>pH</i> @7.7
<i>Vapor Pressure (mm Hg.)</i> 17.54 mm Hg	<i>Vapor Density (AIR = 1)</i> 0.01	<i>Evaporation Rate (Butyl Acetate=1)</i> Water – 1.0
<i>Other</i> % Volatile by Volume: >90%		

10. Stability and Reactivity

<i>Incompatibility (Materials to Avoid)</i> No specific incompatibilities. Materials which are not compatible with water will not be compatible with this product.			
<i>Hazardous Products Produced During Decomposition</i> None			
<i>Hazardous Polymerization?</i>	<i>May Occur</i> No	<i>May Not Occur</i> Yes	<i>Conditions to Avoid</i> None
<i>Stability?</i>	<i>Stable</i> Yes	<i>Unstable</i> No	<i>Conditions to Avoid</i> None

11. Toxicological Information

<i>Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data</i> ReDip™ indicator is non-toxic and non-hazardous.
--

12. Ecological Information

<i>Toxicity, Environmental Fate, Physical/Chemical Data, or Other Data Supporting Environmental Hazard Statements</i> No ecotoxicity data is available. This product is not expected to present an environmental hazard.

13. Disposal Considerations

<i>Regulations</i> Do not flush liquid into public sewer, water systems or surface waters.
<i>Properties (Physical/Chemical) Affecting Disposal</i>

14. Transport Information			
<i>Regulated for shipping?</i> Yes No <input checked="" type="checkbox"/>	<i>Proper Shipping Name</i> Chemicals NOI	<i>Packing Group</i> N/A	
<i>Do changes in quality, packaging, or shipment method change product classification?</i> Yes No <input checked="" type="checkbox"/>	<i>Hazard Class</i> N/A	<i>Identification Number</i> N/A	
<i>Other</i>			
15. Regulator Information			
<i>Federal Regulations</i>			
NFPA Hazard Rating	Health: 1	Flammability: 0	Reactivity: 0
HMIS Hazard Rating	Health: 1	Flammability: 0	Reactivity: 0
Personal Protection: Potential skin and eye irritant			
<i>International Regulations</i>			
<i>Other</i>			
16. Other Information			

The information set forth herein has been gathered from standard reference materials and/or Ransom & Randolph Company test data and is, to the best knowledge and belief of Ransom & Randolph Company accurate and reliable. Such information is offered solely for your consideration, investigation and verification and it is not suggested or guaranteed that the hazard precautions or procedures mentioned are the only ones which exist. Ransom & Randolph Company makes no warranties, express or implied, with respect to the use of such information or the use of the specific material identifies here in combination with any other material or process, and assumes no responsibility therefore.