

## Ransom &amp; Randolph

## 1. Product and Company Identification

<i>Product Name</i> Keycote™ Wetting Agent	<i>MSDS Code Number</i> 351
<i>Trade Name &amp; Synonyms</i>	<i>Date of Last Revision</i> 07/06
<i>Chemical Name</i>	<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 <i>FAX</i> 419/865-9997
<i>Product Use</i> A nonionic surfactant used in colloidal silica based slurries	<i>Emergency Telephone Number</i> 419/865-9497

## 2. Composition of Ingredients

<u>Hazardous Components</u>	<u>C.A.S. Number</u>	<u>%</u>
Butanedionic Acid, Sulf-, 1,4-Bis(2-ethylhexyl) Ester, Sodium Salt	577-11-7	>25%
Ethoxylated,2,4,7,9 – Tetramethyl 5 Decyn-4,7 -Diol	9014-85-1	>25%
Acetylenic Diol, The remaining components are trade secret and do non influence classification of the product		

## 3. Hazardous Identification

*Emergency Overview*

This product may cause eye and skin irritation. Avoid contact with eyes and skin. Harmful if swallowed. Prolonged exposure may result in chemical burns and permanent damage.

<i>Routes of Exposure</i>	<i>Signs &amp; 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>				Severe Irritation	
<i>Skin</i>		Irritation			
<i>Inhalation</i>	In high concentrations, vapors may be irritating.				
<i>Ingestion</i>	Nausea				
<i>Other</i>					

*Medical Conditions Aggravated by Exposure*

Adverse eye effects (such as conjunctivitis or corneal damage). Eye disease, Asthma, Skin disorders, Liver disorders (jaundice or liver enlargement)

*Carcinogenicity (IARC, NTP)*

Not listed by NTP, IARC, OSHA or ACGIH

*Potential Environmental Effects*

#### 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 water for 15 minutes. Seek necessary medical aid.		
<i>Skin</i>	Remove contaminated clothing. Wash thoroughly with soap and water.		
<i>Inhalation</i>	Remove to fresh air. Insure breathing, seek necessary medical aid		
<i>Ingestion</i>	If person vomits, prevent aspiration of vomit, turn head to the side		
<i>Other</i>			

*Note to Physicians (Treatment, Testing, and Monitoring)*

#### 5. Fire and Explosion Data

<i>Flashpoint: (Method)</i> >446F (C.O.C.)	<i>Flammable (Explosive) Limits in Air</i> LEL: ND      UEL: ND		<i>Autoignition Temperature:</i>	<i>Other</i>
<i>Flame Propagation or Burning Rate (for solids):</i>	<i>Properties Contributing to Fire Intensity</i>	<i>Flammability Classification NFDA Rating:</i> 0		
<i>Extinguishing Media</i> Carbon dioxide, foam, dry chemicals		<i>Extinguishing Media to Avoid</i>		

#### *Protection and Procedures for Firefighters:*

Do not breathe fumes. Use self contained breathing apparatus and protective clothing. Avoid eye and skin contact.

#### *Unusual Fire and Explosion Hazards:*

#### 6. Accidental Release Measures

##### *Containment Techniques*

##### *Spill/Leak Clean-Up Procedures and Equipment*

Soak up with absorbent materials and remove to container for disposal. Wash area thoroughly with soap and water.

##### *Evacuation Procedures*

##### *Special Instructions*

##### *Reporting Requirements*

#### 7. Handling and Storage

##### *Handling Practices and Warnings*

No special handling requirements. – Emergency shower and eye wash station accessible.

##### *Storage Practices and Warnings*

Keep away from oxidizers.

<b>8. Exposure Controls/Personal Protection</b>			
<i>Ventilation</i> Local exhaust	<i>Other Engineering Controls</i> General ventilation not required but recommended.		
<i>Routes of Entry:</i>	<i>Personal Protective Equipment (PPE) for Normal Use:</i>	<i>PPE for Emergencies:</i>	
<i>Eye/Face</i>	Chemical Resistant goggles	Chemical Resistant Goggles	
<i>Skin</i>	Long sleeve clothing and chemical gloves		
<i>Inhalation</i>	Normally not necessary	Self contained breathing apparatus recommended in very high concentrations.	
<i>General Hygiene Considerations and Work Practices</i>			
<i>Other Protective Measures and Equipment</i> Eyewash and safety shower.			
<b>9. Physical and Chemical Characteristics</b>			
<i>Appearance</i> Light Yellow liquid		<i>Odor</i>	
<i>Normal Physical State:</i>  Liquid X Gas  Solid		<i>Boiling Point</i> ND	<i>Melting Point</i> NA
		<i>Freezing Point</i>	
<i>Specific Gravity or Density (H<sub>2</sub>O=1)</i> 1.05 gm/ml @ 20°C	<i>Solubility in Water</i> Emulsifiable		<i>pH</i> 5 – 8 (1% in D.W.)
<i>Vapor Pressure (mm Hg.)</i> 9.55 mm Hg	<i>Vapor Density (AIR = 1)</i> ND		<i>Evaporation Rate (Butyl Acetate=1)</i>
<i>Other</i>			
<b>10. Stability and Reactivity</b>			
<i>Incompatibility (Materials to Avoid)</i> Strong oxidizers, reacts violently with peroxides, Dehydrating agents			
<i>Hazardous Products Produced During Decomposition</i> Aldehydes, Flammable hydrocarbon fragments (acetylene), Ketones			
<i>Hazardous Polymerization?</i>	<i>May Occur</i>	<i>May Not Occur</i> Y	<i>Conditions to Avoid</i> None
<i>Stability?</i>	<i>Stable</i> Y	<i>Unstable</i>	<i>Conditions to Avoid</i> None
<b>11. Toxicological Information</b>			
<i>Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data</i>			

## 12. Ecological Information

*Toxicity, Environmental Fate, Physical/Chemical Data, or Other Data Supporting Environmental Hazard Statements*

LD50: 1,900 mg/Kg - Rat

## 13. Disposal Considerations

*Regulations*

Dispose of in accordance with local, state and federal EPA regulations

*Properties (Physical/Chemical) Affecting Disposal*

## 14. Transport Information

*Regulated for shipping?*

Yes No X

*Proper Shipping Name*

*Packing Group*

N/A

*Do changes in quality, packaging, or shipment method change product classification?*

Yes No X

*Hazard Class*

N/A

*Identification Number*

N/A

*Other*

## 15. Regulator Information

*Federal Regulations*

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification: Acute Health Hazard

*International Regulations*

*Other*

This product does not contain any chemicals known by the State of California to cause cancer, birth defects or any other harm.

## 16. Other Information

HMIS Rating: Health 2, Flammability 1, Physical Hazard 0

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 identities here in combination with any other material or process, and assumes no responsibility therefore.