

**Material Safety Data Sheet**  
**1. Chemical Product and Company Identification**

Trade Name: **KELIGROUT 101-P**  
Chemical Name: Filled Unsaturated Polyester Resin  
Synonyms: Anchoring Product  
Product Code:  
Manufacturer: KELKEN CONSTRUCTION SYSTEMS  
Emergency Telephone: (732) 721-0249

**2. Composition/Information on Ingredients**

<u>Component</u>	<u>CAS#</u>	<u>Exposure Limits</u>	<u>% by weight</u>
Polyester Resin	Proprietary	None assigned	28 ± 2%
Styrene Monomer	100-42-5	50.0 ppm ACGIH TWA 100.0 ppm ACGIH STEL	18 ± 2%
Pigments	Proprietary	None assigned	54 ± 2%

**3. Hazard Identification**

**Emergency Overview: WARNING! Adhesive containing a flammable liquid. Causes eye irritation. May cause skin and upper respiratory tract irritation. May cause central nervous system depression. Do not take internally.**

Relevant Routes of Exposure: Inhalation, eye and skin.

**Signs and Symptoms of Acute Overexposure:**

Exposure to styrene vapors from this product, above 50ppm, may cause irritation of the eyes, nose, and throat, and headache, nausea or vomiting. Liquid resin is irritating to eyes and skin. Protective gloves and goggles are recommended when contact with liquid resin by splash is possible. Use with adequate exhaust ventilation.

**Signs and Symptoms of Chronic Overexposure:**

No known chronic health effects have been observed with normal use of this product.

**Potential Health Effects/Health Hazard Identification**

**Acute Exposure**

Eye: Causes Irritation  
Skin: Causes Irritation  
Ingestion: May cause irritation to the gastrointestinal track  
Inhalation: Mucous membrane irritant  
Chronic Exposure: Long-term exposure to excess styrene vapor may cause nausea, loss of appetite, CNS depression and general weakness.

### Other Hazards:

Known Synergist: None Known  
Explosion Hazard: Empty containers are dangerous. They still may contain flammable vapors. Keep away from heat, sparks, or flames.  
Fire Hazard: Classified as Flammable Liquid.  
Corrosion Hazard: Not corrosive

### 4. First Aid Measures

Eye Contact: Immediately flush with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reuse.

Ingestion: Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

### Additional protective Measures:

First Aid Facilities: Eye bath, safety shower, washing facilitation.

Advice to Physicians: None Known

### 5. Fire Fighting Measures

Flammable Liquid. Flammability Class: 1C

Extinguishing Media: Water spray, dry chemical, Carbon Dioxide, Foam

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

Special Exposure Hazard:

Containers can build pressure if exposed to heat or fire.

The heat from a fire may cause polymerization which could cause violent rupture of closed containers. Vapors from the product may form explosive mixtures with air. Special Fire Fighting Procedures Use. Use water spray to keep fire-exposed containers cool.

## **6. Accidental Release Measurers**

### **Leaks and Spills:**

Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. For large spills; flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams.

**Personal Protection:** Wear protective clothing.

## **7. Handling and Storage**

**Handling:** Material is a combustible liquid; keep away from heat, open flame, and other ignition sources. Avoid breathing vapors. Use protective equipment when handling.

**Storage:** Store indoors with adequate ventilation and out of direct sunlight. To insure product quality storage temperature should not exceed 77°F. To insure against possible exothermic self-accelerating decomposition, storage temperature must not exceed 131°F (55°C). Store away from amines, acids, alkalis, and heavy metal compounds.

## **8. Exposure Controls/Personal Protection**

### **Engineering Control:**

Local exhaust ventilation should be used to control the emissions of air contaminants. General dilution ventilation may assist with the reduction of air contaminant concentrations.

### **Respiratory Protection:**

If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Respirator type : Organic vapor. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134.

### **Ventilation Required:**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, evaporation from large surfaces, spraying, heating, etc.

**Skin Protection:** Wear impervious gloves, boots, and protective clothing appropriate for the risk of exposure.

- Eye Protection: Wear safety glasses with side shields ( or goggles).  
9. **Physical and Chemical Properties**

Appearance: White viscous liquid  
Odor: Aromatic odor  
Physical State: Liquid  
pH: Not determined  
Boiling Point: Not determined  
Freezing Point: Not determined  
Flash Point: Not determined  
Vapor Pressure: Not determined  
Oxidizing Properties: Is an oxidizing agent.  
Solubility in Water: Negligible  
Density: 12 lb./gal.  
Specific Gravity: 1.4 ± 0.2  
Viscosity: 10,000 cps @ 72°F  
Explosion Limits: Not determined  
Partition Coefficient: Not determined  
Evaporation Rate: (Butyl Acetate = 1) : Slower than Butyl Acetate

10. **Stability and Reactivity**

Chemical Stability: This product is stable at ambient temperatures but may decompose if exposed to temperatures over 131°F.

Conditions To Avoid: Heat and open flame

Incompatibility With Other Materials: Avoid amines, acids, alkalis, and heavy metal compounds.

Hazardous Decomposition Products: Carbon Dioxide, Carbon Monoxide and Organic Acids

Hazardous Polymerization: Will not occur.

11. **Toxicological Information**

Eye Effects: This product is expected to be severely irritating and corrosive.

Skin Effects: Prolonged or repeated contact is expected to be irritating and corrosive.

Inhalation Effects: Prolonged breathing of vapors can cause headache

Ingestion Effects: This product contains a corrosive, toxic peroxide. Can cause burns to mouth, esophagus and gastrointestinal track. It may cause stomach cramps, vomiting, and diarrhea.

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### 12. Ecological Information

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Ecotoxicity: The ecological toxicity of this product is not known.

Persistence: Other ecological information on this product is not known.

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### 13. Disposal Considerations

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Disposal: Discharge, treatment, or disposal may be subject to national, state and local laws. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

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### 14. Transport Information

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United Nations Number: UN3109

Packing Group: PG III

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### 15. Regulatory Information

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U.S. Federal Regulations: Toxic substances control act (TSCA) Inventory - Yes

U.S. DOT Regulations:

Hazard class: Organic peroxide type F liquid  
ID Number: UN3109  
Packing Group: II

North American Emergency Response Guide No. 145

Primary Label: Organic Peroxide

Secondary Label: Corrosive

## 16. Other Information

### NFPA Codes:

Health: 3  
Reactivity: 2

Flammability 2

### HMIS Codes:

Health 3  
Reactivity: 2

Flammability 2

Workers using Keligrout 101 Catalyst should read and understand this MSDS and be trained in the proper use of this material.

MSDS Prepared By: Robert F. Korb  
Technical Director

Revision Date: April 21, 2000

This MSDS has been prepared with data from laboratories, raw material supplier data and government publications.

This MSDS contains all the information items specified in Schedule 1, Column 3 of the Controlled Products Regulations in a 16 heading format.

Information herein is accurate to the best of our knowledge. Suggestions are made without warranty or guarantee of results. Before using, the user should determine the suitability of the products for his intended use, and the user assumes the risk and liability in connection therewith. We do not suggest violation of any existing patents or give permission to practice any patented invention without license.

**Material Safety Data Sheet**  
**1. Chemical Product and Company Identification**

Trade Name: **KELIGROUT 101 CATALYST**

Chemical Name: Filled Catalyst Solution

Synonyms: Anchoring Product Hardener  
Product Code:

Manufacturer: **KELKEN CONSTRUCTION SYSTEMS**

Emergency Telephone: (732) 721-0249

**2. Composition/Information on Ingredients**

<u>Component</u>	<u>CAS#</u>	<u>Exposure Limits</u>	<u>% by weight</u>
Proprietary Pigments		10.0 PPM ACGIH TWA	52 ± 2%
Proprietary Plasticizers		5.0 PPM OSHA TWA	24 ± 2%
		10.0 PPM OSHA STEL	
Dibenzoyl Peroxide	94-36-0	5.0 PPM OSHA PEL	16 ± 2%
Proprietary Peroxide		N/D	8 ± 2%

**3. Hazard Identification**

**Emergency Overview: DANGER! Contains Organic Peroxide.**  
**Heat or contamination may cause hazardous decomposition. Causes eye and skin burns. Causes respiratory tract irritation. Harmful if inhaled, swallowed or absorbed through skin. May cause headache dizziness and nausea. Combustible liquid and vapors.**

Relevant Routes of Exposure: Inhalation, eye and skin.

**Signs and Symptoms of Acute Overexposure:**

May cause headache, sore throat, shortness of breath and possibly severe irritation to nose, throat, and lungs. Protective gloves and goggles are recommended when contact with liquid resin by splash is possible. Use with adequate exhaust ventilation.

**Signs and Symptoms of Chronic Overexposure:**

No known chronic health effects have been observed with normal use of this product.

Potential Health Effects/Health Hazard Identification

Acute Exposure

Eye: May cause severe irritation or burns.

Skin: May cause severe irritation or burns.

### Other Hazards:

Known Synergist: None Known

Explosion Hazard: Empty containers are dangerous. They still may contain flammable vapors. Keep away from heat, sparks, or flames.

Fire Hazard: Classified as Flammable Liquid.

Corrosion Hazard: Not corrosive

### 4. First Aid Measures

**Eye Contact:** Immediately flush with plenty of water for at least 15 minutes. Get medical attention.

**Skin Contact:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reuse.

**Ingestion:** Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

**Inhalation:** If symptomatic, move to fresh air. Get medical attention if symptoms persist.

### Additional protective Measures:

**First Aid Facilities:** Eye bath, safety shower, washing facilitation.

**Advice to Physicians:** None Known

### 5. Fire Fighting Measures

Flammable Liquid. Flammability Class: 1C

**Extinguishing Media:** Water spray, dry chemical, Carbon Dioxide, Foam

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

**Special Exposure Hazard:**

Containers can build pressure if exposed to heat or fire.

The heat from a fire may cause polymerization which could cause violent rupture of closed containers. Vapors from the product may form explosive mixtures with air. Special Fire Fighting Procedures Use. Use water spray to keep fire-exposed containers cool.



## 6. Accidental Release Measurers

### Leaks and Spills:

Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. For large spills; flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams.

Personal Protection: Wear protective clothing.

## 7. Handling and Storage

Handling: Material is a combustible liquid; keep away from heat, open flame, and other ignition sources. Avoid breathing vapors. Use protective equipment when handling.

Storage: Store indoors with adequate ventilation and out of direct sunlight.

To insure product quality storage temperature should not exceed 77°F.

To insure against possible exothermic self-accelerating decomposition, storage temperature must not exceed 131°F (55°C).

Store away from amines, acids, alkalis, and heavy metal compounds.

## 8. Exposure Controls/Personal Protection

### Engineering Control:

Local exhaust ventilation should be used to control the emissions of air contaminants. General dilution ventilation may assist with the reduction of air contaminant concentrations.

### Respiratory Protection:

If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Respirator type : Organic vapor. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134.

### Ventilation Required:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, evaporation from large surfaces, spraying, heating, etc.

Skin Protection: Wear impervious gloves, boots, and protective clothing appropriate for the risk of exposure.

## 9. Physical and Chemical Properties

Appearance: Viscous liquid  
Odor: Styrene odor  
Physical State: Liquid  
pH: Not determined  
Boiling Point: 295°F  
Freezing Point: Not determined  
Flash Point: 89°F TCC  
Vapor Pressure: 4.50 mm Hg @ 68°F  
Oxidizing Properties: Reacts with strong oxidizing agents  
Solubility in Water: Negligible  
Density: 15.4 lb./gal.  
Specific Gravity: 1.77 ± 0.02  
Volatile by Weight: 18 %  
Viscosity: 15,000 cps @ 72°F  
Explosion Limits: LEL 1.1% by volume UEL 6.1% by volume  
Partition Coefficient: Not Determined  
Evaporation Rate: (Butyl Acetate = 1) : Slower than Butyl Acetate

## 10. Stability and Reactivity

Chemical Stability: Unstable in extreme heat such as in a fire.  
Conditions To Avoid: Heat and open flame  
Incompatibility With Other Materials: Avoid oxidizing agents  
Hazardous Decomposition Products: Carbon Dioxide, Carbon Monoxide and Organic Acids  
Hazardous Polymerization: May occur.

## 11. Toxicological Information

Material  
Styrene  
LD50.RAT.Oral  
>5g/kg

Eye Effects: Mildly irritating  
Skin Effects: Mildly irritating  
Inhalation Effects: Prolonged breathing of vapors can cause headache  
Ingestion Effects: May cause nausea.

**12. Ecological Information**

- Ecotoxicity: The styrene in this product is expected to be toxic to aquatic organisms.
- Persistence: The organic portion of this product is expected to biodegrade.

**13. Disposal Considerations**

- Disposal: Discharge, treatment, or disposal may be subject to national, state and local laws. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

**14. Transport Information**

United Nations Number: UN1993

Packing Group: PG III

**15. Regulatory Information**

U.S. Federal Regulations: Toxic substances control act (TSCA) Inventory - Yes

U.S. DOT Regulations:

Hazard class: Adhesive containing a flammable liquid  
ID Number: UN1133  
Packing Group: III Flammable Liquid

**16. Other Information**

NFPA Codes:		
Health:	2	Flammability
Reactivity:	2	3
HMIS Codes:		
Health	2	Flammability
Reactivity:	2	3

Workers using Keligrout should read and understand this MSDS and be trained in the proper use of this material.

MSDS Prepared By: Robert F. Korb  
Technical Director

Revision Date: March 9, 2000

This MSDS has been prepared with data from laboratories, raw material supplier data and government publications.

This MSDS contains all the information items specified in Schedule 1, Column 3 of the Controlled Products Regulations in a 16 heading format.

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