



KELKEN

CONSTRUCTION SYSTEMS

Chemical Structural Anchoring Systems and Accessories

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KeligROUT 101-P Material Safety Data Sheets

See below or download the [KeligROUT 101-P MSDS in PDF format](#).

1. Chemical Product and Company Information

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

Component	CAS#	Exposure Limits	% by weight
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. Kepp 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 a 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 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 combustibile liquid; keep away from heat, open flame, oxidizers and other ignition sources. Avoid breathing vapors. Use protective equipment when handling.

Storage: Store indoors with adequate ventilation and out of direct sunlight. Store away from oxidizing agents. Always use oldest lots first. Material should last 6 months at not over 75°F.

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 space, 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: 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 ± 0.2

Volatile by Weight: 18 %

Viscosity: 200,000 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 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	LD50.RAT.Oral
Styrene	> 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

Reactivity: 2

Flammability: 3

HMIS Codes:

Health: 2

Reactivity: 2

Flammability: 3

Workers using Keligrout 101P 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

Reviewed Date: March 8, 2007

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.

KeligROUT 101 Catalyst

1. Chemical Product and Company Information

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

Component	CAS#	Exposure Limits	% by weight
Proprietary Pigments		10.0 PPM ACGIH TWA	52 ± 2%
Proprietary Plasticizers		5.0 PPM OSHA TWA 10.0 PPM OSHA STEL	24 ± 2%
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.

Ingestion: Corrosive. Can cause burns to mouth, esophagus and gastrointestinal track

Inhalation: May cause headache, sore throat, shortness of breath and possibly severe irritation to nose, throat, and lungs.

Chronic Exposure: Effects of long-term exposure to this product are not known.

Other Hazards: Known Synergist: Metal salts and amines cause rapid decomposition.
Fire & Explosion Hazard: Peroxides and peroxide decomposition products are flammable and can ignite with explosive force if confined.
Corrosion Hazard: 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 a 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

- Extinguishing Media: Water spray, dry chemical, Carbon Dioxide, Foam
- Protective Equipment: Wear self-contained breathing apparatus and protective clothing.
- Special Exposure Hazard: Peroxides and peroxide decomposition products are flammable and can ignite with explosive force if confined.
- Special Fire Fighting Procedures: 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 combustibile 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 space, 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 is 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.

12. Ecological Information

Ecotoxicity:	The ecological toxicity of this product is not known.
Persistence:	Other ecological information on this product is not known.

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.
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14. Transport Information

United Nations Number: UN3109

Packing Group: PG III

15. Regulatory Information

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

Reviewed Date: March 8, 2007

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