

SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT:

Product Identifier: ConduFlow
 Product Description: Solidifying Conductive Liquid Backfill
 Recommended Use: Electrical Grounding

COMPANY IDENTIFICATION: SUPPLIER

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION of the Substance or Mixture:

Skin Corrosion/Irritation Cat. 2; H315
 Eye Irritation Cat. 2A; H319

HMIS: Health – 1 Fire – 0 Reactivity – 0 PPE – B

LABELLING:

SYMBOLS:



Signal Word: Warning

Hazard Statements

- H315: Causes skin irritation
- H319: Causes serious eye irritation

Precautionary Statement

- P264: Wash hands thoroughly after handling
- P280: Wear protective gloves/clothing/eye protection/face protection.
- P302+P352: IF ON SKIN: Wash with plenty of water.
- P337+P313: If eye irritation persists: Get medical advice/attention.
- P314: Get medical advice/attention if you feel unwell.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Wt. %	Acute Toxicity
Calcined Petroleum Coke	64743-05-1	50 – 70	Non-toxic
Deionized Water	7732-18-5	1 – 8	Not available
Propylene Glycol	57-55-6	1-10	Non-toxic
Non-Hazardous Components are Proprietary			

SECTION 4 FIRST AID MEASURES

EYE: Protect unexposed eye. Immediately flush eyes with running water for a minimum of 15 minutes by the clock while forcing eyelids open during flushing. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, seek medical attention. .

SKIN: Immediately remove all contaminated clothing. Wash hands and exposed skin with soap and plenty of water. Seek medical attention if irritation persists or concerned.

INHALATION: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If breathing has stopped, administer artificial respiration and supply oxygen. If problems persist, seek medical attention.



SECTION 4 FIRST AID MEASURES, CONTINUED

INGESTION: Rinse mouth thoroughly. Do NOT induce vomiting. Immediately give water. Never give anything by mouth to an unconscious person. If symptoms develop, seek medical attention.

Most Important Symptoms and Effects, both Acute and Delayed:

Irritation, Headache, Nausea, Shortness of breath. Prolonged exposure may cause skin irritation. Direct eye contact is likely irritating. Ingestion may cause adverse effects.

Indication of any Immediate Medical Attention and Special Treatment Needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use water fog, dry chemical, chemical foam, or carbon dioxide.

UNSUITABLE EXTINGUISHING MEDIA: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

SPECIAL HAZARDS: Product is not flammable or combustible but may burn at high temperatures. Products of combustion may contain carbon monoxide, carbon dioxide and sulfur dioxide. Do not enter permitted confined space or enclosed area without proper PPE.

ADVICE FOR FIREFIGHTERS:

Protective Equipment: Use water spray or fog for cooling exposed containers. Wear protective eyewear, gloves, and clothing. Refer to Section 8. Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

Additional Information (Precautions): Avoid inhaling gases, fumes, dust, mist, vapour, and aerosols. Avoid contact with skin, eyes, and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Ensure adequate ventilation. Ensure that air-handling systems are operational. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

ENVIRONMENTAL PRECAUTIONS: Avoid releases to the environment and prevent waste material from entering sewers, natural waterways or storm water management systems. Limit leakage with binder (sand, earth or vermiculite). Dispose of absorbed material in accordance with local, state and federal regulations.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP: Wear protective eyewear, gloves, and clothing. Refer to Section 8. Dike spill and containerize for disposal, use appropriate absorbent (sand, earth or vermiculite, etc.). Refer to section 13.

REFERENCE TO OTHER SECTIONS: See Section 8 for information on selection of personal protective equipment. See Section 13 for information on disposal of spilled product and contaminated absorbents.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Follow good hygiene procedures when handling chemical materials. Wear protective gloves/protective clothing/eye protection/face protection. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.



SECTION 7 **HANDLING AND STORAGE**

CONDITIONS FOR SAFE STORAGE: Store in a cool location in a corrosive resistant container. Keep away from food and beverages. Protect from freezing and physical damage. Keep container tightly sealed. Store away from incompatible materials such as strong oxidizing agents. Ideal storage temperature if 10 – 30 °C. Do not allow the product to freeze.

SECTION 8 **EXPOSURE CONTROLS / PERSONAL PROTECTION**

EXPOSURE CONTROLS:

Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Ensure adequate ventilation, especially in confined areas. Employees should wash their hands before eating or drinking.

Personal Protection: Workers must comply with the Personal Protective Equipment requirements of the workplace in which this product is handled.

Eye/Face Protection: Wear approved safety glasses with side-shields or chemical safety goggles.

Skin Protection: Wear chemical protective gloves, and protective clothing to prevent skin exposure. Avoid skin contact with used gloves. Select glove material impermeable and resistant to the substance.

Respiratory Protection: If irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known, wear approved respiratory protection. The use of a NIOSH approved respirator, such as NIOSH 95, may be needed if working in a poorly ventilated area.

Additional Information: May cause minor skin, eye, or lung irritation, but good hygienic practices can minimize these effects.

General Hygienic Measures: Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing. Do not eat, drink, or smoke in work areas.

SECTION 9 **PHYSICAL/CHEMICAL PROPERTIES**

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Dark blue granular slurry
Odour:	Mild Odour
Odour Threshold:	Not applicable
pH:	Not applicable
Melting point/Freezing point:	Approximately 0 °C
Initial Boiling Point and boiling range:	100 °C at 17 mm Hg
Flash point:	Not applicable
Flammability:	Not flammable or combustible
Auto-ignition temperature:	>1290 °F, >700 °C
Upper/lower flammability or explosive limits:	Not applicable
Explosive properties:	Not applicable
Oxidising properties:	Not applicable
Sensitivity to mechanical impact:	Not applicable
Sensitivity to static discharge:	Not applicable
Vapour pressure:	Not applicable
Vapour density:	Not applicable
Relative density:	No data
Solubility:	Slightly soluble in water
Partition coefficient (n-octanol/water):	Not applicable
Decomposition temperature:	>177 °C
Viscosity:	Not applicable



SECTION 10 STABILITY AND RELIABILITY

REACTIVITY: Nonreactive under normal conditions.

CHEMICAL STABILITY: Stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: None under normal processing

CONDITIONS TO AVOID: Incompatible materials. Extreme heat and open flames. Extreme low temperatures. May burn if exposed to temperatures above 1290 °F (700 °C).

INCOMPATIBLE MATERIALS: Strong acids, Strong bases. Strong oxidizing acids; other strong oxidants. Strong cationics. Isocyanates.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, sulfur oxides, metal oxides.

SECTION 11 TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE: Eye and Skin contact, Ingestion.

ACUTE TOXICITY: Not classified.

Propylene Glycol	
LD50 Oral Rat	>20 000 mg/kg
LD50 (Dermal, Rabbit)	>2000 mg/kg
LC50 (Inhalation, Rat, 4h)	---

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

CHRONIC TOXICITY: Not applicable.

Germ Cell Mutagenicity: Not applicable.

Reproductive Effects: Mice were exposed to 0, 1.0, 2.5 or 5.0% (approximately 1820, 4800, or 10100 mg/kg/day) propylene glycol in their drinking water in a continuous breeding (2-generation) study. No significant effects on fertility or reproduction were observed.

Carcinogenicity: The ingredients of this product are not classed as carcinogenic by ACGIH, IARC, OSHA, or NTP.

Other Studies Relevant to Material: Propylene Glycol, when tested by open and occluded patch tests, was found to be non-irritating to the skin of humans and animals. Slight irritation was noted when Propylene Glycol was administered to the eye. The irritation was non injurious and lasted until tears washed the Propylene Glycol away.

SECTION 12 ECOLOGICAL INFORMATION

TOXICITY: Non-toxic.

PERSISTENCE AND DEGRADABILITY: High persistence in soil as degradation is not expected to be a significant fate in organisms or the environment.

BIOACCUMULATION POTENTIAL: Low bioaccumulation potential as negligible water solubility restricts route of exposure in the aquatic environment.

MOBILITY IN SOIL: Not available.

OTHER ADVERSE EFFECTS: No other adverse environmental effects are expected. Attempts to quantify unalkylated PAH, sulfur, and metal leachate values remained below detection limits under freshwater test conditions. PAH values were below detection limits and metals did not exceed soil background levels.



SECTION 13 **DISPOSAL CONSIDERATIONS**

DISPOSAL METHODS: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Untreated waste should not be released to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe manner. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff, and contact with soil, waterways, drains and sewers.

SECTION 14 **TRANSPORT INFORMATION**

UN Number	Not Regulated.
UN proper shipping name	Not Regulated.
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not available
Special Precautions for User	Not available
U.S. Hazardous Materials Regulation (DOT 49CFR):	Not Regulated.
Canada Transportation of Dangerous Goods (TDG) Regulations:	Not Regulated.

SECTION 15 **REGULATORY INFORMATION**

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

USA
TSCA STATUS: Substances are listed on the TSCA inventory or are exempt.

CANADA
This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*.

NSNR Status: Substances are listed on the DSL or are exempt.

SECTION 16 **OTHER INFORMATION**

Revision Date: December 4, 2017.

Additional Information: This safety data sheet is believed to provide a useful summary of the hazards of ConduFlow as it is commonly used, but cannot anticipate and provide all of the information that might be needed in every situation.
The information provided herein was believed by SAE Inc. to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of product and to determine the suitability of the product for its intended use.