

Permatite Material Safety Data Sheet

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SECTION 1 CHEMICAL PRODUCT IDENTIFICATION

Product: PERMATITE C-1 DUCT SEALER
Synonyms/Other: Permatite C-1 Duct Sealer, Fire Retardant
Permatite Duct Sealer
C-1 Duct Sealer
MSDS Number: 12
Product Type: Adhesive / Sealant / Mastic
Preparation/Revision Date: 2012-06-24

SECTION 2 COMPOSITION INFORMATION

INGREDIENTS	CAS # / EINECS	%	OSHA TWA	OSHA STEL	ACGIH TWA	SKIN
Toluene	108-88-3 203-625-9	20	200 ppm 300 ppm (CEIL)	--	50 ppm	YES
Proprietary additives	Mixture	Balance	--	--	--	NO

Comments: Not applicable.

TWA – Time Weighted Average is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.
STEL – Short Term Exposure Limit is the employee's 15-minute time weighted average exposure which shall not be exceeded at any time during a work day unless another time limit is specified.
PEL – Permissible Exposure Limit averaged over an 8-hour workshift.
TLV – Threshold Limit Value averaged over an 8-hour workshift.

SECTION 3 HAZARDOUS IDENTIFICATION

WARNING: HARMFUL IF INHALED
MAY CAUSE SKIN IRRITATION
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING
ORGANS: KIDNEYS, LIVER, RESPIRATORY TRACT, SKIN, CENTRAL
NERVOUS SYSTEM, EYE – LENS OR CORNEA

Eye contact: Direct contact may cause severe irritation, redness, tearing, blurred vision and conjunctivitis.

Skin contact: Avoid prolonged skin contact. This product contains materials that may cause skin irritation. Prolonged or repeated contact may result in itching, moderate irritation, dermatitis (dryness, chapping and reddening of skin), and defatting (cracking) of the skin.

Inhalation: During application, vapors may be harmful if inhaled. Vapors may cause nasal and respiratory tract irritation. Central nervous system effects from inhalation may include excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm. Repeated or prolonged exposure may cause behavioral changes. Deliberate concentration and inhalation, such as, "sniffing glue", may cause permanent brain damage.
Once cured, this material has a low vapor pressure and as such is not expected to present an inhalation hazard at ambient temperature.

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Ingestion: Harmful if swallowed.
Other: Hazards are primarily due to toluene.

SECTION 4 FIRST AID MEASURES

Eye contact: Flush eyes with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure to ensure thorough rinsing. Get medical attention if irritation persists.

Skin contact: Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Contaminated leather articles should be discarded.

Inhalation: Remove to fresh air. Do not leave victim unattended. If breathing is difficult, ensure clear airway and administer oxygen. If not breathing, apply artificial respiration or cardiopulmonary resuscitation. Seek immediate medical attention if necessary.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs keep head below hips to prevent aspiration and monitor for breathing difficulty. Keep affected person warm and at rest. Seek immediate medical attention.

Other: Note to physician: In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratracheal tube, to prevent aspiration. Irregular heart beat may occur, use of adrenalin is not advisable. Individuals intoxicated by the product should be hospitalized immediately, with acute and continuing attention to neurological and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be monitored for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonitis. Such patients should be monitored for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.

SECTION 5 FIRE FIGHTING MEASURES

Flash point: 7°C (45°F) by TCC (ASTM D56).
Flammable limits: Not determined.
Extinguishing media: Use water spray, dry chemical, alcohol foam, all purpose AFFF or carbon dioxide to extinguish fire.

Special firefighting procedures: Evacuate area and fight fire from a safe distance. If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Water can be used to cool exposed containers and flush spills away from ignition sources. Fire fighters must wear MSHA/NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment. Collect contaminated fire-fighting water separately. It must not enter sewage system. Dike area of fire to prevent runoff.

Unusual fire & explosion hazards: Dangerous when exposed to heat or flame. Vapors form flammable or explosive mixtures with air at room temperature. Vapor may cause flash fire. Closed containers may explode when exposed to extreme heat. Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. Heavy flammable vapors may settle along ground level and low spots to create an invisible fire hazard. The vapors may extend to sources of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Byproducts of combustion: Fires involving this product may release oxides of carbon, nitrogen; reactive hydrocarbons and irritating vapors.

Autoignition

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temperature: Not determined.
Explosion data: Not determined. Care should always be exercised in dust/mist areas.
Other: Clothing, rags or similar organic material contaminated with this product and stored in a closed space may undergo spontaneous combustion. Transfer to and from commonly bonded and grounded containers.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill control procedures (land): Contact emergency personnel. Immediately turn off or isolate any source of ignition (pilot lights, electrical equipment, flames, heaters, etc.). Evacuate area and ventilate. Personnel wearing proper protective equipment should contain spill immediately with inert materials (sand, earth, chemical spill pads of cotton) by forming dikes. Dikes should be placed to contain spill in a manner that will prevent material from entering sewers and waterways. Large spill, once contained, may be picked up using explosion proof, non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers for disposal. In case of an accident or road spill contact INFOTRAC at 800.535.5053 and notify local authorities. For accidents outside of the USA and Canada call +1 352.323.3500.

Spill control procedures (water): Remove from surface by skimming or with suitable adsorbents. If a large spill occurs notify appropriate authorities (normally the National Response Center or Coast Guard at 800.424.8802).

Waste disposal method: Most petroleum solvent based products are incinerated, land-filled or reclaimed. All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded may be a regulated waste. Refer to state and local regulations. Department of Transportation (DOT) regulations may apply for transporting this material when spilled. See Section 14.

Other: CAUTION – If spilled material is cleaned up using a regulated solvent, the resulting waste mixture will be regulated.

SECTION 7 HANDLING AND STORAGE

Handling procedures: Keep containers closed when not in use. Do not transfer to unmarked containers. Fire extinguishers should be kept readily available. See NFPA 30 and OSHA 1910.106 – Flammable and Combustible Liquids. Empty containers retain product residue which may exhibit hazards of material. Therefore, do not pressurize, cut, glaze, weld, or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse. Bulk transfers should be properly grounded to prevent static electric charge from accumulating, creating a fire hazard.

Storage procedures: Do not store product in excess of 49°C (120°F). Store containers away from heat, sparks, open flame, or oxidizing materials. Keep in a well ventilated area.

Do not store containers outside due to temperature fluctuations - risk of drawing water into product through container seals due to cap and fluid expansion and contractions.

Additional information: No additional information.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection: Applicable mainly to persons in repeated contact situations such as packaging of product, installers and technicians, service/maintenance, and cleanup/spill control personnel.

Respiratory protection: None required if airborne concentrations are maintained below threshold limits listed on page one. Otherwise a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed utilizing an MSHA/NIOSH approved (or equivalent) organic vapor mask.

Eye protection: Eye protection is strongly recommended. If material is handled such that it could contact the eyes, wear safety glasses with side shields or vented/splash

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Hand protection:	proof goggles (ANSI Z87.1 or approved equivalent). Impervious gloves such as neoprene or nitrile rubber to avoid skin sensitization and absorption.
Other protection:	Launder soiled clothes. Discard contaminated leather articles.
Local control measures:	Use adequate ventilation when working with material in an enclosed area. Mechanical methods such as fume hoods or area fans may be used to reduce localized vapor areas. Proper grounding and bonding in packaging, bulk transfer and manufacturing areas to prevent static accumulation and discharge.
Other:	Consumption of food and drink should be avoided in work areas where uncured product is present. Always wash hands and face with soap and water before eating, drinking or smoking.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Vapor pressure:	Not determined.
API gravity:	Not determined.
Volatile Organic Content (VOC):	139 g/L by ASTM C771-03.
Density:	12.0 lbs/gal at 15.6°C (60.0°F). 1438 g/L at 15.6°C (60.0°F).
Specific gravity:	1.44 at 15.6°C (60.0°F).
Solubility:	Negligible in water, miscible in most petroleum solvents.
Percent volatile:	Not determined.
Vapor density (air=1):	Not determined.
Evaporation rate (n-Butyl Acetate=1):	Not determined.
Odor:	Strong, sweet smell.
Appearance:	Gray color. Semi-solid with smooth appearance.
Viscosity:	Not determined.
Boiling point:	110°C (230°F).
Pour/Freeze point:	Uncured material is semi-solid at room temperature. Cured material is a paintable solid.
Other:	Not applicable.

SECTION 10 STABILITY AND REACTIVITY

Stability:	Material is stable at room temperatures and pressure.
Conditions to avoid:	Avoid high temperatures and product contamination.
Incompatibility with other materials:	Strong oxidizing agents react violently with chlorine, oxygen and concentrated acids.
Decomposition products:	Smoke, carbon monoxide and dioxide, and other aldehydes of incomplete combustion. Oxides of carbon and nitrogen; chlorinated hydrocarbons, reactive hydrocarbons and irritating vapors.
Hazardous polymerization:	Will not occur.
Other:	Not applicable.

SECTION 11 TOXICOLOGICAL INFORMATION

Oral toxicity:	LD50 result for rats is 636 mg/kg (Toluene). LDLo result for humans is 50 mg/kg (Toluene).
Dermal toxicity:	Not determined.
Inhalation toxicity:	Immediately Dangerous to Life or Health (IDLH): 500 ppm (Toluene). Cured product is solid at room temperature and not expected to be an inhalation hazard.
Dermal sensitization:	Prolonged or repeated contact with uncured product may make skin more sensitive to other skin sensitizers.
Chronic toxicity:	Not determined.
Carcinogenicity:	Contains toluene, which causes oral cancer in several rat studies. There is no

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Mutagenicity:
Reproductive toxicity:
Other:

toluene listing by ACGIH, IARC or NTP stating positive human cancer risk. Risk of cancer depends on duration and level of exposure.
Not determined.
Not determined.
Not applicable.

SECTION 12 ECOLOGICAL INFORMATION

Environmental toxicity: This material may be toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.
Environmental fate: The products of degradation are expected to be less toxic than the product itself.
Other: Not applicable.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste disposal: Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. This product unadulterated by other materials may be classified as a non-regulated waste in some areas - but still needs to be disposed of at approved facilities. Waste management should be in full compliance with federal, state, and local laws.
Disposal consideration: Most used and non-use solvent and petroleum solvent products are incinerated by licensed burner facilities for heat value, or reclaimed by oil recycling services. Look in a local telephone directory or internet for headings under, 'Waste', 'Waste Services', 'Waste Disposal' for companies licensed to handle such material. Additional information can be obtained from local EPA, DNR, Sewer and Land-Fill sites. Unused, packaged fluids may be donated to other companies or charities.
Other: The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Disposal can only occur in properly permitted facilities. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Disposal of this material must be conducted in compliance with all federal, state, and local regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT shipping description: Flammable liquid, N.O.S.
U.S. DOT identification number: UN1294.
U.S. DOT hazard classification: 3.
Packaging class: II.
Other: This DOT description is provided to assist in the proper classification of this product and may not be suitable for all shipping conditions.

SECTION 15 REGULATORY INFORMATION

Clean water act/oil pollution act: Section 307 of the Clean Water Act (CWA): Toluene.
Section 311 of the Clean Water Act (CWA): Toluene.

Any spill or discharges that produce a visible sheen or film on surface of water, or in waterways, ditches, or sewers leading to surface water must be reported. Contact the National Response Center at 800-424-8802.
TSCA: All components of this material are listed in the U.S. TSCA Inventory.
Other TSCA: Not applicable.

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SARA Title III: Section 302/304 extremely hazardous substances:
 No known components are listed under Section 302/304.
 Section 311, 312 hazard categorization:
 Acute (immediate health effects): YES
 Chronic (delayed health effects): YES
 Fire (hazard): YES
 Reactivity (hazard): NO
 Pressure (sudden release hazard): NO
 Section 313 toxic chemicals:
 This product contains the following chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.
 Toluene (RQ 1000 lbs) 108-88-3

CERCLA: For stationary/moving sources – reportable quantity:
 5000 lbs (2268 kg) due to Toluene.

Other: Releases may be reportable to the Nation Response Center under the Clean Water Act, 33 U.S.C. 1321(b)(3) and (5) - see head of Section 15. Failure to report may result in substantial civil and criminal penalties.

Recommend contacting the local authorities in the event of any type of spill to determine local reporting requirements and also to aid in the cleanup.

SECTION 16	OTHER INFORMATION
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	NFPA 704	NPCA-HMIS	KEY
HEALTH:	2	2	0 = Minimal
FIRE:	3	3	1 = Slight
REACTIVITY:	0	0	2 = Moderate
SPECIFIC HAZARD:	NONE	N/A	3 = Serious
PROTECTION INDEX:	N/A	B	4 = Severe

Precautionary labels: HARMFUL IF INHALED
 MAY CAUSE SKIN IRRITATION
 CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING
 ORGANS: KIDNEYS, LIVER, RESPIRATORY TRACT, SKIN, CENTRAL
 NERVOUS SYSTEM, EYE – LENS OR CORNEA

External information: This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, Permatite must rely upon information provided by those materials' manufacturers or distributors.

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