

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : PERMATITE C-1 DUCT SEALER
 Product form : Mixture
 Other means of identification : Permatite C-1 Duct Sealer, Fire Retardant
 Permatite Duct Sealer
 C-1 Duct Sealer

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Adhesive / Sealant / Mastic

1.3. Details of the supplier of the safety data sheet

Permatite / Division of DSI
 18466 Kenyon Avenue
 Lakeville, MN 55044
 (952)898-3200

1.4. Emergency telephone number

24 Hour Emergency:
 INFOTRAC: 1-800-535-5053
 NOTE: INFOTRAC emergency number to be used only in the event of
 chemical emergencies involving a spill, leak, fire, exposure or accident
 involving chemicals.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 2 H225
 Skin Irrit. 2 H315
 Skin Sens. 1 H317
 Carc. 1A H350
 Repr. 2 H361
 STOT RE 1 H372
 Asp. Tox. 1 H304

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H225 - Flammable liquid and vapor
 H304 - May be fatal if swallowed and enters airways
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H350 - May cause cancer (Inhalation)
 H361 - Suspected of damaging the unborn child (Inhalation)
 H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P210 - Keep away from heat, open flames, sparks. - No smoking
 P240 - Ground/bond container and receiving equipment
 P241 - Use explosion-proof electrical, lighting, ventilating equipment
 P260 - Do not breathe fume, mist, spray, vapours
 P261 - Avoid breathing fume, mist, spray, vapours
 P264 - Wash hands, forearms and face thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P272 - Contaminated work clothing must not be allowed out of the workplace
 P280 - Wear eye protection, protective clothing, protective gloves
 P301+P310 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER
 P302+P352 - If on skin: Wash with plenty of water
 P308+P313 - If exposed or concerned: Get medical advice/attention

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P314 - Get medical advice/attention if you feel unwell
P321 - Specific treatment (see first aid instructions on this label)
P331 - Do NOT induce vomiting
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use dry extinguishing powder, foam, carbon dioxide (CO₂) to extinguish
P405 - Store locked up
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Toluene	(CAS No) 108-88-3	10 - 30
Distillates, petroleum, solvent-dewaxed heavy paraffinic	(CAS No) 64742-65-0	1 - 5
Silica: Crystalline, quartz	(CAS No) 14808-60-7	0.5 - 1.5
Zinc, bis(dibutylcarbamodithioato-S,S')-, (T-4)-	(CAS No) 136-23-2	0.1 - 1
N,N'-Ethylenebis(12-hydroxyoctadecanamide)	(CAS No) 123-26-2	0.1 - 1
Silica, cristobalite	(CAS No) 14464-46-1	0.1 - 1
Titanium dioxide	(CAS No) 13463-67-7	0.1 - 1
Carbon black	(CAS No) 1333-86-4	0.1 - 1

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. May cause cancer (Inhalation). Suspected of damaging the unborn child (Inhalation). May cause damage to organs through prolonged or repeated exposure.

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation. May cause an allergic skin reaction.

Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

Chronic symptoms : May cause an allergic skin reaction. May cause cancer. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray. Sand.

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5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable.
Explosion hazard : Heating may cause an explosion.
Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

- Precautionary measures fire : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Transfer to and from commonly bonded and grounded containers.
Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see item 8).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Minimize generation of dust and vapors. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Soak up small spill with inert solids.
Methods for cleaning up : Wear suitable protective clothing. Exclude sources of ignition and ventilate the area. Collect spillage. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety procedures. Keep container closed when not in use. Avoid breathing dust fume, mist, spray, vapours. Do not get in eyes, on skin, or on clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Bulk transfers should be properly grounded to prevent static electric charge from accumulating, creating a fire hazard.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a dry, cool and well-ventilated place. Keep away from ignition sources. Avoid elevated temperatures.
Storage temperature : < 49 °C (120 °F)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Toluene (108-88-3)	
ACGIH TWA (ppm)	20
Remark (ACGIH)	Visual impair; female repro;
Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Zinc, bis(dibutylcarbomodithioato-S,S'), (T-4)- (136-23-2)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Carbon black (1333-86-4)	
ACGIH TWA (mg/m ³)	3

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Remark (ACGIH)	Bronchitis
OSHA PEL (TWA) (mg/m ³)	3.5
Silica: Crystalline, quartz (14808-60-7)	
ACGIH TWA (mg/m ³)	0.025 (respirable fraction)
OSHA PEL (TWA) (mg/m ³)	(30)/(%SiO ₂ + 2) total dust; (10)/(%SiO ₂ + 2) respirable fraction
OSHA PEL (TWA) (ppm)	(250)/(%SiO ₂ + 5) respirable fraction
Silica, cristobalite (14464-46-1)	
ACGIH TWA (mg/m ³)	0.025 (respirable fraction)
OSHA PEL (TWA) (mg/m ³)	0.05 (respirable dust)
N,N'-Ethylenebis(12-hydroxyoctadecanamide) (123-26-2)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Titanium dioxide (13463-67-7)	
ACGIH TWA (mg/m ³)	10
OSHA PEL (TWA) (mg/m ³)	15 total dust

8.2. Exposure controls

Appropriate engineering controls

: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

: Gloves. Protective goggles. Wear chemically impervious apron over labcoat and full coverage clothing. Insufficient ventilation: wear respiratory protection.



Hand protection

: Gloves should be classified under Standard EN 374 or ASTM F1296. Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. . Change contaminated gloves immediately. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection

: Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection

: Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection

: Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment with gas filter (type A2). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Semi-solid with smooth appearance.
Color	: Grey.
Odor	: strong. Sweet.
Odor Threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: Uncured material is semi-solid at room temperature. Cured material is a paintable solid.
Boiling point	: 110 °C (230 °F)
Flash point	: 7 °C (45 °F) by TCC (ASTM D56)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available

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Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.44 at 15.6 °C (60.0 °F)
Density	: 1438 g/l (12.0 lbs/gal) at 15.6 °C (60 °F)
Solubility	: Partially miscible in petroleum solvents. Water: Negligible
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : 139 g/l by ASTM C771-03

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

elevated temperatures. Ignition sources. Pressure. Product contamination.

10.5. Incompatible materials

Strong acids. Oxidizing agent.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Nitrogen oxides. Chlorinated hydrocarbons. Hydrocarbons. Irritating vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Toluene (108-88-3)	
LD50 oral rat	2600 mg/kg
LD50 dermal rabbit	12000 mg/kg
LC50 inhalation rat (mg/l)	12.5 mg/l/4h
Titanium dioxide (13463-67-7)	
LD50 oral rat	> 10000 mg/kg
Carbon black (1333-86-4)	
LD50 oral rat	> 15400 mg/kg
LD50 dermal rabbit	> 3 g/kg
Silica: Crystalline, quartz (14808-60-7)	
LD50 oral rat	500 mg/kg
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer (Inhalation).
Titanium dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans
Carbon black (1333-86-4)	
IARC group	2B - Possibly carcinogenic to humans
Silica: Crystalline, quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Silica, cristobalite (14464-46-1)	
IARC group	1 - Carcinogenic to humans

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Titanium dioxide (13463-67-7)

Reproductive toxicity	: Suspected of damaging the unborn child (Inhalation).
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways.
Chronic symptoms	: May cause an allergic skin reaction. May cause cancer. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No information available.

12.2. Persistence and degradability

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Persistence and degradability	No information available.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No information available.
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12.4. Mobility in soil

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Ecology - soil	No information available.
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12.5. Other adverse effects

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1133 Flammable Adhesive, organic, n.o.s. (Contains: Toluene), 4.1, II

UN-No.(DOT) : 1133

DOT NA no. : UN1133

Proper Shipping Name (DOT) : Flammable Adhesive, organic, n.o.s.

Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable Liquid 49 CFR 173.124

Hazard labels (DOT) : 3 - Flammable Liquid

Packing group (DOT) : II - Medium Danger

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 15 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 50 kg

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Additional information

Other information : No supplementary information available.

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Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory
All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard
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Toluene (108-88-3)

Listed on United States SARA Section 313

15.2. International regulations

No additional information available.

15.3. US State regulations

California Proposition 65

This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

Toluene (108-88-3)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	Yes	No	No	7000b µg/day

Titanium dioxide (13463-67-7)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	Not available

Carbon black (1333-86-4)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	Not available

Silica: Crystalline, quartz (14808-60-7)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	Not available

Silica, cristobalite (14464-46-1)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	Not available

Toluene (108-88-3)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

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Styrene (100-42-5)
U.S. - Massachusetts - Right To Know List
Carbon black (1333-86-4)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
Silica: Crystalline, quartz (14808-60-7)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List
Silica, cristobalite (14464-46-1)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List
Talc (14807-96-6)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Limestone (1317-65-3)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes : Revision 1.0: New SDS Created.
Revision date : 02/03/2015
Other information : Author: BCS.

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard : 3 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

HMIS III Rating

Health : 2
Flammability : 3
Physical : 0
Personal Protection : N.I.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product