



# SAFETY DATA SHEET

Revision Date 22-Feb-2023

Version 8

## 1. IDENTIFICATION

### Product identifier

**Product Name** LIQUID METAL FILLER 3.5 FL.OZ

### Other means of identification

**Product Code** 25909

### Recommended use of the chemical and restrictions on use

**Recommended Use** Adhesive Filler

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### Manufacturer Address

ITW Permatex, Inc.  
6875 Parkland Blvd.  
Solon, Ohio 44139 USA  
Telephone: 1-87-Permatex  
(866) 732-9502

#### 24-hour emergency phone number

Chem-Tel: 800-255-3924  
International Emergency:  
00+1+ 813-248-0585  
Contract Number: MIS0003453

#### May Also Be Distributed by:

ITW Permatex Canada  
101-2360 Bristol Circle  
Oakville, ON Canada L6H 6M5  
Telephone: (800) 924-6994

**E-mail address:** mail@permatex.com

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1A
Flammable liquids	Category 2

### Label elements

#### **Emergency Overview**

#### Signal word

**Danger**

Harmful if swallowed or if inhaled  
Causes serious eye irritation  
May cause cancer  
Highly flammable liquid and vapor

**Appearance** Black**Physical state** Liquid**Odor** Solvent**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Do not eat, drink or smoke when using this product  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN (or hair):

Remove/Take off immediately all contaminated clothing

Rinse skin with water/shower

If skin irritation occurs: Get medical advice/attention

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

**Precautionary Statements - Storage**

Store in a well-ventilated place

Keep cool.

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Not applicable.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
BARIUM SULFATE	7727-43-7	30 - 60
KAOLIN	1332-58-7	10 - 30
ACETONE	67-64-1	10 - 30
ISOBUTYL ACETATE	110-19-0	3 - 7
LIMESTONE	1317-65-3	1 - 5
TITANIUM DIOXIDE	13463-67-7	0.1 - 1
SILICA, QUARTZ	14808-60-7	0.1 - 1
TRIPHENYL PHOSPHITE	101-02-0	0.1 - 1

CARBON BLACK	1333-86-4	0.1 - 1
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\*The exact percentage (concentration) of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.
<b>Eye contact</b>	In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Administer oxygen if breathing is difficult.
<b>Ingestion</b>	IF SWALLOWED:.. Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

##### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	See section 2 for more information.
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##### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Keep victim warm and quiet.
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#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Dry chemical, CO<sub>2</sub>, water spray or regular foam, Water spray, fog or regular foam, Use water spray or fog; do not use straight streams

##### Unsuitable extinguishing media

CAUTION: All these products have a very low flash point. Use of water spray when fighting fire may be inefficient

##### Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Those substances designated with a "P" may polymerize explosively when heated or involved in a fire. Runoff to sewer may create fire or explosion hazard. Substance may be transported hot.

##### Explosion data

<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	None.

##### Protective equipment and precautions for firefighters

Move containers from fire area if you can do it without risk.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk.
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**Other Information** Water spray may reduce vapor; but may not prevent ignition in closed spaces.

### Environmental precautions

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas. See section 12 for additional ecological information.

### Methods and material for containment and cleaning up

**Methods for containment** A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

**Methods for cleaning up** Use clean non-sparking tools to collect absorbed material. Dike far ahead of liquid spill for later disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Remove all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store in a well-ventilated place. Keep cool. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

**Incompatible materials** Strong oxidizing agents, Acids, Alkalis, Reducing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
BARIUM SULFATE 7727-43-7	TWA: 5 mg/m <sup>3</sup> inhalable particulate matter, particulate matter containing no asbestos and <1% crystalline silica	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
KAOLIN 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
ACETONE 67-64-1	STEL: 500 ppm TWA: 250 ppm	TWA: 1000 ppm TWA: 2400 mg/m <sup>3</sup> (vacated) TWA: 750 ppm (vacated) TWA: 1800 mg/m <sup>3</sup> (vacated) STEL: 2400 mg/m <sup>3</sup> The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors. (vacated) STEL: 1000 ppm	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m <sup>3</sup>
ISOBUTYL ACETATE	STEL: 150 ppm	TWA: 150 ppm	IDLH: 1300 ppm

110-19-0	TWA: 50 ppm	TWA: 700 mg/m <sup>3</sup> (vacated) TWA: 150 ppm (vacated) TWA: 700 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 700 mg/m <sup>3</sup>
LIMESTONE 1317-65-3	-	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> total dust	IDLH: 5000 mg/m <sup>3</sup> TWA: 2.4 mg/m <sup>3</sup> CIB 63 fine TWA: 0.3 mg/m <sup>3</sup> CIB 63 ultrafine, including engineered nanoscale
SILICA, QUARTZ 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> TWA: 50 µg/m <sup>3</sup> excludes construction work, agricultural operations, and exposures that result from the processing of sorptive clays (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
CARBON BLACK 1333-86-4	TWA: 3 mg/m <sup>3</sup> inhalable particulate matter	TWA: 3.5 mg/m <sup>3</sup> (vacated) TWA: 3.5 mg/m <sup>3</sup>	IDLH: 1750 mg/m <sup>3</sup> TWA: 3.5 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

NIOSH IDLH Immediately Dangerous to Life or Health

#### Appropriate engineering controls

##### Engineering Controls

Showers  
Eyewash stations  
Ventilation systems

#### Individual protection measures, such as personal protective equipment

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin and body protection</b>	Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.
<b>Respiratory protection</b>	Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

##### General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	Black
<b>Odor</b>	Solvent
<b>Odor threshold</b>	No information available
<b><u>Property</u></b>	<b><u>Values</u></b>
pH	No information available
<b>Melting point / freezing point</b>	No information available
<b>Boiling point / boiling range</b>	54-118 °C / 130-245 °F
<b>Flash point</b>	-18 °C / -0.4 °F
<b>Evaporation rate</b>	<1
<b>Flammability (solid, gas)</b>	No information available

**Flammability Limit in Air**

Upper flammability limit:	12.8%	
Lower flammability limit:	2.4%	
Vapor pressure	181 mm Hg @ 68°F	
Vapor density	>1	Air = 1
Relative density	1.8	
Water solubility	Partially soluble	
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Hyphen	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

**Other Information**

Softening point	No information available
Molecular weight	No information available
VOC content	7%
Density	No information available
Bulk density	No information available
SADT (self-accelerating decomposition temperature)	No information available

**10. STABILITY AND REACTIVITY****Reactivity**

No information available

**Chemical stability**

Stable under normal conditions

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible materials**

Strong oxidizing agents, Acids, Alkalis, Reducing agents

**Hazardous Decomposition Products**

Carbon oxides

Hydrogen chloride

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

Inhalation	May be harmful by inhalation.
Eye contact	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact	May cause skin irritation and/or dermatitis.
Ingestion	Harmful if swallowed.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
BARIUM SULFATE 7727-43-7	= 307000 mg/kg ( Rat )	-	-
KAOLIN	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-

1332-58-7			
ACETONE 67-64-1	= 5800 mg/kg ( Rat )	> 15700 mg/kg ( Rabbit )	= 50100 mg/m <sup>3</sup> ( Rat ) 8 h
ISOBUTYL ACETATE 110-19-0	= 15400 mg/kg ( Rat )	> 17400 mg/kg ( Rabbit )	-
TITANIUM DIOXIDE 13463-67-7	> 10000 mg/kg ( Rat )	-	= 5.09 mg/L ( Rat ) 4 h
TRIPHENYL PHOSPHITE 101-02-0	= 1590 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 6.7 mg/L ( Rat ) 1 h
CARBON BLACK 1333-86-4	> 15400 mg/kg ( Rat )	-	> 4.6 mg/m <sup>3</sup> ( Rat ) 4 h

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
TITANIUM DIOXIDE 13463-67-7	-	Group 2B	-	X
SILICA, QUARTZ 14808-60-7	A2	Group 1	Known	X
CARBON BLACK 1333-86-4	A3	Group 2B	-	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not classifiable as a human carcinogen

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

**Target organ effects** Central nervous system, Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1052 mg/kg

ATEmix (dermal) 81399 mg/kg

ATEmix (inhalation-dust/mist) 3.2 mg/l

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

0.2042 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

Chemical name	Partition coefficient
ACETONE 67-64-1	-0.24
ISOBUTYL ACETATE	1.72

110-19-0	
TRIPHENYL PHOSPHITE	4.98
101-02-0	

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Disposal of wastes</b>	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
<b>Contaminated packaging</b>	Do not reuse container.
<b>US EPA Waste Number</b>	D001, U002

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
ACETONE 67-64-1	Ignitable

**14. TRANSPORT INFORMATION****DOT**

<b>UN/ID No</b>	1133
<b>Proper shipping name</b>	Adhesives, Limited Quantity (LQ)
<b>Transport hazard class(es)</b>	3
<b>Packing Group</b>	II
<b>Emergency Response Guide Number</b>	128

**IATA**

<b>UN number or ID number</b>	ID 8000
<b>Proper shipping name</b>	Consumer commodity
<b>Transport hazard class(es)</b>	9
<b>ERG Code</b>	9L

**IMDG**

<b>UN number or ID number</b>	1133
<b>Proper shipping name</b>	Adhesives, Limited Quantity (LQ)
<b>Transport hazard class(es)</b>	3
<b>Packing Group</b>	II
<b>EmS-No</b>	F-E, S-D

**15. REGULATORY INFORMATION****International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Not determined



**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
BARIUM SULFATE - 7727-43-7	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
ISOBUTYL ACETATE 110-19-0	-	-	-	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
ACETONE 67-64-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
ISOBUTYL ACETATE 110-19-0	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
AMORPHOUS SILICA 7631-86-9	*Carcinogen
TITANIUM DIOXIDE 13463-67-7	*Carcinogen (airborne, unbound particles of respirable size)
SILICA, QUARTZ 14808-60-7	*Carcinogen (airborne particles of respirable size only)
CARBON BLACK 1333-86-4	*Carcinogen (airborne, unbound particles of respirable size)

\*The asterisked chemical(s) listed are not subject to Proposition 65 because they are not airborne in the finished product

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
BARIUM SULFATE 7727-43-7	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**WHMIS Hazard Class**

B2 - Flammable liquid, D2B - Toxic materials

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	<b>Health hazards</b> 2	<b>Flammability</b> 3	<b>Instability</b> 0	-
<b>HMIS</b>	<b>Health hazards</b> 2	<b>Flammability</b> 3	<b>Physical hazards</b> 0	<b>Personal protection</b> B

NFPA (National Fire Protection Association)

HMIS (Hazardous Material Information System)

Revision Date 22-Feb-2023

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**End of Safety Data Sheet**