



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision Date 03-Feb-2023

Version 13

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

### 1.1. Product identifier

**Product Code** 47909V

**Product Name** VERSACHEM TITANIUM EPOXY SYSTEM (HARDENER)

**Unique Formula Identifier (UFI) Code** QMUH-Q06W-X003-9R5D  
Contains 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, CRYSTALLINE SILICA

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

**Recommended Use** Epoxy curing agent

**Uses advised against** No information available

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

<b>Manufacturer</b>	<b>Only Representative (OR)</b>
ITW Permatex, Inc. 6875 Parkland Blvd. Solon, Ohio 44139 USA Telephone: 1-87-Permatex (866) 732-9502	ITW Permatex Bay 150 Shannon Industrial Estate Co. Clare Ireland V14 DF82 353(61)771500 353(61)471285 customerservice.shannon@itwpp.com

For further information, please contact

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

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

### 1.4. Emergency telephone number

24-hour emergency phone number - §45 - (EC)1272/2008	
Europe	112
Austria	01 406 43 43
Belgium	070 245 245
Denmark	+ 45 8212 1212
Finland	0800 147 111/ 09 471 977
France	+33 (0)1 45 42 59 59
Germany	112 / 16117
Ireland	01 809 2166

Italy	0382-24444
Netherlands	+31 (0)88 755 8000
Norway	22 59 13 00
Poland	112
Portugal	+351 800 250 250
Slovenia	112
Spain	+34 91 562 04 20
Sweden	112
Switzerland	145
United Kingdom	111
Bulgaria	+359 2 9154 233
Croatia	+3851 2348 342
Cyprus	1401
Czech Republic	+420 224 919 293/ +420 224 915 402
Estonia	16662/ (+372) 7943 794
Greece	(003) 2107793777
Hungary	+36 80 201 199
Iceland	543 2222
Latvia	+371 67042473
Liechtenstein	01 406 43 43
Lithuania	+370 (85) 2362052
Luxembourg	(+352) 8002 5500
Romania	+40213183606
Slovakia	+421 2 5477 4166
Malta	112

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)

### 2.2. Label elements

Contains 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, CRYSTALLINE SILICA



**Signal word**

Warning

### Hazard statements

Hazard statements  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation

**Precautionary Statements - EU (§28, 1272/2008)**

P264 - Wash face, hands and any exposed skin thoroughly after handling  
P280 - Wear protective gloves and eye/face protection  
P321 - Specific treatment (see .? on this label)  
P332 + P313 - If skin irritation occurs: Get medical advice/attention  
P337 + P313 - If eye irritation persists: Get medical advice/attention  
P362 + P364 - Take off contaminated clothing and wash it before reuse

### 2.3. Other hazards

No information available.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Chemical name	Weight-%	REACH registration No.	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL 90-72-2	10-30		202-013-9	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	-	-	-
CRYSTALLINE SILICA 14808-60-7	0.1 - 1	Exempt	238-878-4	-	-	-	-

**Full text of H- and EUH-phrases: see section 16**Acute Toxicity Estimate

No information available

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL 90-72-2	1200	1280	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Ingestion</b>	Rinse mouth.

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

<b>Symptoms</b>	No information available.
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**4.3. Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Small Fire** Dry chemical or CO<sub>2</sub>.  
**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**5.2. Special hazards arising from the substance or mixture**

**Specific hazards arising from the chemical** No information available.

**5.3. Advice for firefighters**

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation.

**For emergency responders** Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

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

**6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling** Ensure adequate ventilation.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

## 7.3. Specific end use(s)

### Identified uses

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
CRYSTALLINE SILICA 14808-60-7	TWA 0.1 mg/m³ respirable fraction	TWA: 0.05 mg/m³	TWA: 0.1 mg/m³	TWA: 0.1 mg/m³	TWA: 0.1 mg/m³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
CRYSTALLINE SILICA 14808-60-7	TWA: 0.1 mg/m³	TWA: 0.1 mg/m³	TWA: 0.3 mg/m³ TWA: 0.1 mg/m³	TWA: 0.1 mg/m³	TWA: 0.05 mg/m³ TWA: 0.1 mg/m³
Chemical name	France	Germany	Germany MAK	Greece	Hungary
CRYSTALLINE SILICA 14808-60-7	TWA: 0.1 mg/m³	-	-	TWA: 0.1 mg/m³	TWA: 0.1 mg/m³
Chemical name	Ireland	Italy	Italy REL	Latvia	Lithuania
CRYSTALLINE SILICA 14808-60-7	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³	TWA: 0.1 mg/m³	TWA: 0.025 mg/m³	TWA: 0.1 mg/m³	TWA: 0.1 mg/m³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
CRYSTALLINE SILICA 14808-60-7	-	-	TWA: 0.075 mg/m³ TWA: 0.75 mg/m³	TWA: 0.3 mg/m³ TWA: 0.1 mg/m³ STEL: 0.9 mg/m³ STEL: 0.3 mg/m³	TWA: 0.1 mg/m³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
CRYSTALLINE SILICA 14808-60-7	TWA: 0.025 mg/m³ TWA: 0.05 mg/m³ TWA: 0.1 mg/m³	TWA: 0.1 mg/m³	TWA: 0.1 mg/m³ STEL: 0.5 mg/m³	-	TWA: 0.05 mg/m³
Chemical name	Sweden		Switzerland		United Kingdom
CRYSTALLINE SILICA 14808-60-7	NGV: 0.1 mg/m³		TWA: 0.15 mg/m³		TWA: 0.1 mg/m³

### Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
CRYSTALLINE SILICA 14808-60-7	-	( - )	-	-	-

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

### 8.2. Exposure controls

#### Personal protective equipment

**Eye/face protection** No special protective equipment required.

<b>Skin and body protection</b>	No special protective equipment required.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Environmental exposure controls</b>	No information available.

## SECTION 9: Physical and chemical properties

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

<b>Physical state</b>	No information available
<b>Appearance</b>	White
<b>Color</b>	No information available
<b>Odor</b>	Mercaptan
<b>Odor threshold</b>	No information available

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
<b>Flash point</b>	> 93 °C	
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>pH</b>	No data available	None known
pH (as aqueous solution)	No data available	No information available
<b>Kinematic viscosity</b>	No Data Available	None known
Dynamic viscosity	No data available	None known
<b>Water solubility</b>	No data available	Negligible
<b>Solubility(ies)</b>	No Data Available	None known
<b>Partition coefficient</b>	No Data Available	None known
<b>Vapor pressure</b>	<1mmHg @ 70°F	
<b>Relative density</b>	1.13	
Bulk density	No data available	
Density	No data available	
<b>Vapor density</b>	>1	Air = 1
<b>Particle characteristics</b>		
Particle Size	No information available	
Particle Size Distribution	No information available	

### 9.2. Other information

<b>VOC Content (%)</b>	0
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9.2.1. Information with regard to physical hazard classes  
Not applicable

9.2.2. Other safety characteristics  
No information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity No information available.

#### 10.2. Chemical stability

Stability Stable under normal conditions.

#### **Explosion data**

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

#### 10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

#### 10.5. Incompatible materials

Incompatible materials None known based on information supplied.

#### 10.6. Hazardous decomposition products

Hazardous Decomposition Products Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur.

### **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### Information on likely routes of exposure

##### **Product Information**

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

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

Symptoms No information available.

##### Numerical measures of toxicity

##### **Acute toxicity**

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

ATEmix (oral) 4,408.00 mg/kg

ATEmix (dermal) 4,701.90 mg/kg

44.9 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

44.9 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

59.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

59.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

59.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL	= 1200 mg/kg ( Rat )	= 1280 mg/kg ( Rat )	-

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

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**11.2. Information on other hazards**

**11.2.1. Endocrine disrupting properties**

**Endocrine disrupting properties** No information available.

**11.2.2. Other information**

**Other adverse effects** No information available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

**12.2. Persistence and degradability**

**Persistence and degradability** No information available.

**12.3. Bioaccumulative potential**

**Bioaccumulation** No information available.



#### 12.4. Mobility in soil

Mobility in soil No information available.

#### 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL	The substance is not PBT / vPvB

#### 12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

#### 12.7. Other adverse effects

No information available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

### SECTION 14: Transport information

#### IATA

14.1 UN number or ID number Not regulated  
14.2  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing group Not regulated  
14.5 Environmental hazard Not applicable  
14.6 Special precautions for user

#### IMDG

14.1 UN number or ID number Not regulated  
14.2  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing Group Not regulated  
14.5 Environmental hazard Not applicable  
14.6 Special precautions for user  
14.7 Maritime transport in bulk according to IMO instruments

#### RID

14.1 UN/ID No Not regulated  
14.2  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing Group Not regulated  
14.5 Environmental hazard Not applicable  
14.6 Special precautions for user

#### ADR

14.1 UN number or ID number Not regulated  
14.2

14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical name	French RG number
CRYSTALLINE SILICA 14808-60-7	RG 25

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
CRYSTALLINE SILICA	Present	-	-

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL - 90-72-2	75.	-

#### Persistent Organic Pollutants

Not applicable

#### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Chemical name	Plant protection products directive (91/414/EEC)
CRYSTALLINE SILICA - 14808-60-7	Plant protection agent

#### International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

#### 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

## 15.2. Chemical safety assessment

**Chemical Safety Report** No information available

## SECTION 16: Other information

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation

#### Legend

SVHC: Substances of Very High Concern for Authorization:

#### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method

#### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification

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Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision Date** 03-Feb-2023

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

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**End of Safety Data Sheet**