

**Safety Data Sheet**

Material: 70702818

**SEMICOSIL® 964**

Version: 2.1 (US)

Date of print: 04/30/2018

Date of last alteration: 06/23/2015

**1. Product and company identification****1.1 Identification of the substance or preparation:**

**Commercial product name:** **SEMICOSIL® 964**  
**Product group:** RTV Silicone Rubber  
**Use of substance / preparation:** Industrial.  
 Adhesive / sealant .

**1.2 Company/undertaking identification:**

**Manufacturer/distributor:** Wacker Chemical Corporation  
 3301 Sutton Road  
 Adrian, MI 49221-9397  
 USA

**Customer information:** InfoLine:  
 Tel (517) 264-8240, Fax (517) 264-8740  
 Hours of operation:  
 Monday - Friday, 8 am to 5 pm (eastern standard time)  
 Corporate website: www.wacker.com

**Emergency telephone no. (24h):** (517) 264-8500  
**Transportation emergency:** (800) 424-9300 (CHEMTREC, USA)  
 (703) 527-3887 (CHEMTREC, international)

This SDS was prepared by the Regulatory Affairs and Product Safety Department (RAPS) of Wacker Chemical Corporation.

**2. Hazards identification****2.1 Classification of the substance or mixture****Classification (GHS):**

Class	Category	Route of exposure
Skin corrosion/irritation	Category 2	
Serious eye damage / eye irritation	Category 1	
Skin sensitization	Category 1B	
Reproductive toxicity	Category 2 (impair fertility)	
Reproductive toxicity	Category 2 (developmental toxicity)	

**2.2 Label elements****Labelling (GHS):**

Pictogram(s):



Signal Word: Danger

H-Code	Hazard Statements
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H361	Suspected of damaging fertility or the unborn child.

**Safety Data Sheet**

Material: 70702818

SEMICOSIL® 964

Version: 2.1 (US)

Date of print: 04/30/2018

Date of last alteration: 06/23/2015

P-Code	Precautionary Statements
P103	Read label before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P332+P313	If skin irritation occurs: Get medical advice/ attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P404	Store in a closed container.
P501	Dispose of contents/container to waste disposal.

**2.3 Other hazards**

Inhalation of aerosol spray may damage health.

**3. Composition/information on ingredients****3.1 Chemical characterization (preparation)**

Chemical characteristics

Polydimethylsiloxane + auxiliary + Aminosilane

**3.2 Information on ingredients:**

Type	CAS No.	Substance	Content [wt. %]		Note
			Lower	Upper	
VERU	108-88-3	Toluene	0.1	<0.5	R
INHA	15901-40-3	Methyl tricyclohexylamino silane	10.0	30.0	
INHA	206-44-0	Fluoranthene	0.1	<0.5	
VERU	108-91-8	Cyclohexylamine	>=0.1	<0.5	
INHA	1760-24-3	Amino alkoxysilane	0.1	<0.5	

**Type:** HYD - by-product upon hydrolysis, INHA - ingredient, NEBE - by-product, MONO - residual monomer, VERU - impurity, VUL - by-product upon vulcanization. \*\*\* **Note:** C1 - IARC carcinogen, C2 - NTP carcinogen, C3 - OSHA carcinogen, NH - non-hazardous, R - reproductive toxin.

Substances listed in the Subsections "HAPS" and "California Proposition 65 Carcinogens / Reproductive Toxins" that are not listed in this section are only present at quantities below 0.1% for California Proposition 65 listed toxins or below 1% for non-carcinogenic HAPS or they are inextricably bound in the product.

**4. First-aid measures****4.1 General information:**

Get medical attention immediately.

**4.2 After inhalation**

If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.

**4.3 After contact with the skin**

For skin contact, immediately wipe away excess material. Use a waterless hand cleaner to remove as much of the remaining material as possible. Wash with soap and water.

**4.4 After contact with the eyes**

If contact with eyes, immediately flush eyes with plenty of water for at least 15 min. Keep eyelids well open to rinse the whole eye surface and eyelids with water.

**4.5 After swallowing**

For Ingestion, if conscious, give no more than two glasses of water and induce vomiting. Vomiting can be induced by giving Syrup of Ipecac. Give fluids until the vomitus is clear.

# Safety Data Sheet

Material: 70702818

SEMICOSIL® 964

Version: 2.1 (US)

Date of print: 04/30/2018

Date of last alteration: 06/23/2015

## 5. Fire-fighting measures

### 5.1 Flammable properties:

Property:	Value:	Method:
Flash point.....	109 °C (228 °F)	(ASTM D93)
Boiling point / boiling range .....	no data available	
Lower explosion limit (LEL) .....	no data available	
Upper explosion limit (UEL).....	no data available	
Ignition temperature .....	no data available	
NFPA Hazard Class (comb./flam.liquid).....	IIIB	

### 5.2 Fire and explosion hazards:

This material will burn with a lazy smoldering flame. Ignitable vapors may be released during processing or curing. Hydrolyzes on contact with moisture releasing ignitable, corrosive vapors.

### 5.3 Recommended extinguishing media:

AFFF alcohol compatible foam. Carbon dioxide. Dry chemical. Water may be used to cool tanks and structures adjacent to the fire.

### 5.4 Unsuitable extinguishing media:

Water may be ineffective in controlling fires of this material. Do not use water to fight these fires.

### 5.5 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Hazardous combustion products: Various hydrocarbon fragments , carbon dioxide , formaldehyde , carbon monoxide , silicon dioxide , nitrogen oxides .

### 5.6 Fire fighting procedures:

Full turn-out gear and Self Contained Breathing Apparatus (SCBA) should be worn when fighting large fires.

## 6. Accidental release measures

### 6.1 Precautions:

Wear personal protection equipment (see section 8). Avoid contact with eyes and skin. Avoid inhaling mists and vapours. If material is released indicate risk of slipping.

#### HAZWOPER PPE Level: C

### 6.2 Containment:

Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water.

Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

### 6.3 Methods for cleaning up

Do not flush away with water. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner.

## 7. Handling and storage

### 7.1 Handling

#### Precautions for safe handling:

Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Ensure adequate ventilation. Avoid contact with acids. Spilled substance increases risk of slipping.

#### Precautions against fire and explosion:

Observe the general rules for fire prevention. Cool endangered containers with water.

**Safety Data Sheet**

Material: 70702818

SEMICOSIL® 964

Version: 2.1 (US)

Date of print: 04/30/2018

Date of last alteration: 06/23/2015

**7.2 Storage****Conditions for storage rooms and vessels:**

none known

**Advice for storage of incompatible materials:**

not applicable

**Further information for storage:**

Keep container tightly closed and store in a cool, well ventilated place.

**8. Exposure controls and personal protection****8.1 Engineering controls****Ventilation:**

Use with adequate ventilation.

**Local exhaust:**

Local exhaust ventilation which meets the requirements of ANSI Z9.2 is recommended to control airborne contaminants at the point of use.

**8.2 Associate substances with specific control parameters such as limit values****Maximum airborne concentrations at the workplace:**

CAS No.	Material	Type	mg/m <sup>3</sup>	ppm	Dust fract.
108-91-8	Cyclohexylamine	ACGIH TWA		10.0	

none known

**8.3 Personal protection equipment (PPE)****Respiratory protection:**

Respiratory protection is only necessary if long term or high level exposures are likely to occur. A NIOSH approved air purifying respirator equipped with universal multi-contaminant, multi-gas/vapor cartridges and at least P-99 solid/aerosol particulate filters is recommended if overexposure to dusts, mists, or vapors could occur. If eye-irritating dusts or vapors are present, a full-face respirator should be worn.

**Hand protection:**

butyl rubber protective gloves

**Eye protection:**

Safety glasses with side shields. Additional eye and face protection, splash-proof goggles, hood, full-faced respirator, or face shield is recommended if splashing could occur.

**Other protective clothing or equipment:**

Provide eye bath and safety shower. Additional skin protection, such as SARANEX coated Tyvek apron, over-sleeves, lab coat, coveralls, or protective suit should be worn if splashing could occur.

**8.4 General hygiene and protection measures:**

Avoid breathing dust/vapor/mist/gas/aerosol. Wash thoroughly after handling. Avoid contact with eyes, skin and clothing.

**9. Physical and chemical properties****9.1 Appearance**

Physical state / form .....: liquid  
 Colour .....: blue  
 Odour .....: ammoniacal, fishy

**9.2 Safety parameters****Property:**

Melting point / melting range .....: no data available  
 Boiling point / boiling range .....: no data available  
 Flash point.....: 109 °C (228 °F)  
 Ignition temperature .....: no data available  
 Lower explosion limit (LEL) .....: no data available  
 Upper explosion limit (UEL).....: no data available

**Method:**

(ASTM D93)

**Safety Data Sheet**

Material: 70702818

SEMICOSIL® 964

Version: 2.1 (US)

Date of print: 04/30/2018

Date of last alteration: 06/23/2015

Vapour pressure.....: no data available  
 Density.....: 1.0 g/cm<sup>3</sup>  
 Water solubility / miscibility.....: insoluble  
 pH-Value.....: not applicable  
 Viscosity (dynamic).....: 800 mPa.s

**9.3 Further information**

Re 9.2 pH Value: Product displays basic reaction with water.

VOC Released During Cure.....: 100 g/l

(Estimated Value)

Corrosive to Steel or Aluminum.....: Not corrosive to steel or aluminum.

**10. Stability and reactivity****10.1 General information:**

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

**10.2 Conditions to avoid**

moisture , Heat, open flames, and other sources of ignition.

**10.3 Materials to avoid**

none known

**10.4 Hazardous decomposition products**

Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation. .

**10.5 Further information:**

Hazardous polymerization cannot occur.

**11. Toxicological information****11.1 Information on toxicological effects****11.1.1 Acute toxicity****Assessment:**

For this endpoint no toxicological test data is available for the whole product.

**Acute toxicity estimate (ATE):**ATE<sub>mix</sub> (oral): > 5000 mg/kgATE<sub>mix</sub> (dermal): 4240 mg/kg**11.1.2 Skin corrosion/irritation****Assessment:**

Irritation of the skin must be expected. Due to a strong adherence to the skin symptoms of skin corrosion cannot be excluded after removing the substance mechanically.

**Product details:**

Result/Effect	Species/Test system	Source
not corrosive	Corrositex	Conclusion by analogy

**11.1.3 Serious eye damage / eye irritation****Assessment:**

After contact to the eyes irreversible effects must be expected.

**11.1.4 Respiratory or skin sensitization****Assessment:**

For this endpoint no toxicological test data is available for the whole product.

# Safety Data Sheet

Material: 70702818

SEMICOSIL® 964

Version: 2.1 (US)

Date of print: 04/30/2018

Date of last alteration: 06/23/2015

## 11.1.5 Germ cell mutagenicity

**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

## 11.1.6 Carcinogenicity

**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

## 11.1.7 Reproductive toxicity

**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

## 11.1.8 Specific target organ toxicity (single exposure)

**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

## 11.1.9 Specific target organ toxicity (repeated exposure)

**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

## 11.1.10 Aspiration hazard

**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

## 11.1.11 Further toxicological information

Fluoranthene has been classified by IARC as Carcinogen Group 3 (Not classifiable as to its carcinogenicity to humans) and by NTP as Reasonably Anticipated To Be Human Carcinogen. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Other information: Hydrolysis product / impurity: Cyclohexylamine (CAS RN 108-91-8) is corrosive to skin and eyes and shows moderate toxic effects after oral administration as well as distinct toxic effects after dermal administration. Exposure to vapour causes irritation of the upper respiratory tract and the eyes. In animal experiments reproductive effects were observed (EU: Repr. 2; H361).

## 12. Ecological information

### 12.1 Toxicity

**Assessment:**

For the product as a whole, no test data is available.

### 12.2 Persistence and degradability

**Assessment:**

Silicone content: biologically not degradable. Elimination by adsorption to activated sludge. The hydrolysis product is readily biologically degradable.

### 12.3 Bioaccumulative potential

**Assessment:**

Bioaccumulation is not expected to occur.

### 12.4 Mobility in soil

**Assessment:**

No data known.

**Safety Data Sheet**

Material: 70702818

SEMICOSIL® 964

Version: 2.1 (US)

Date of print: 04/30/2018

Date of last alteration: 06/23/2015

**12.5 Other adverse effects**

none known

**13. Disposal considerations****13.1 Product disposal**

Recommendation:

Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill or incineration.

**13.2 Packaging disposal**

Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.

**14. Transport information****14.1 US DOT & CANADA TDG SURFACE**

Valuation .....: Not regulated for transport

**14.2 Transport by sea IMDG-Code**

Valuation .....: Not regulated for transport

**14.3 Air transport ICAO-TI/IATA-DGR**

Valuation .....: Not regulated for transport

**15. Regulatory information****15.1 U.S. Federal regulations****TSCA inventory status and TSCA information:**

This material or its components are listed on or are in compliance with the requirements of the TSCA Chemical Substance Inventory.

**TSCA 12(b) Export Notification:**

This material does not contain any TSCA 12(b) regulated chemicals.

**CERCLA Regulated Chemicals:**

CAS No.	Chemical	RQ	Upper limit wt. %
206-44-0	Fluoranthene	100 lbs	0.25

**SARA 302 EHS Chemicals:**

This material does not contain any SARA extremely hazardous substances.

**SARA 311/312 Hazard Class:**

Immediate (acute) health hazard.

**SARA 313 Chemicals:**

This material does not contain any SARA 313 chemicals above de minimus levels.

**HAPS (Hazardous Air Pollutants):**

CAS No.	Chemical	Upper limit wt. %
67-56-1	Methanol	0.0004
108-88-3	Toluene	0.1546
206-44-0	Fluoranthene	0.25

**15.2 U.S. State regulations****California Proposition 65 Carcinogens:**

This material does not contain any chemicals known to the state of California to cause cancer.

**California Proposition 65 Reproductive Toxins:**

67-56-1                      Methanol

**Safety Data Sheet**

Material: 70702818

SEMICOSIL® 964

Version: 2.1 (US)

Date of print: 04/30/2018

Date of last alteration: 06/23/2015

108-88-3 Toluene

**Massachusetts Substance List:**

206-44-0 Fluoranthene

**New Jersey Right-to-Know Hazardous Substance List:**

206-44-0 Fluoranthene

**Pennsylvania Right-to-Know Hazardous Substance List:**

206-44-0 Fluoranthene

**15.3 Canadian regulations**

This product has been classified in accordance with the Hazard criteria of the CPR and the SDS contains all the information required by the CPR.

**WHMIS Hazard Classes:**

D2A, D2B

**DSL Status:**

This material or one or more of its components is not listed on the Canadian Domestic Substances List. However, the material or some of its components are listed on the NDSL (Non-Domestic Substances List).

**Non-DSL Chemicals:**

CAS No.	Chemical	Upper limit wt. %
206-44-0	Fluoranthene	0.25

**15.4 Details of international registration status**

Relevant information about individual substance inventories, where available, is given below.

- Japan ..... : **ENCS** (Handbook of Existing and New Chemical Substances):  
This product is listed in, or complies with, the substance inventory.
- Australia ..... : **AICS** (Australian Inventory of Chemical Substances):  
This product is listed in, or complies with, the substance inventory.
- People's Republic of China ..... : **IECSC** (Inventory of Existing Chemical Substances in China):  
This product is listed in, or complies with, the substance inventory.
- United States of America (USA) ..... : **TSCA** (Toxic Substance Control Act Chemical Substance Inventory):  
This product is listed in, or complies with, the substance inventory.
- European Economic Area (EEA) ..... : **REACH** (Regulation (EC) No 1907/2006):  
General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported into the EEA by customers or other downstream users must be fulfilled by the latter.

**16. Other information****16.1 Additional information:**

This Safety Data Sheet (SDS) meets the requirements of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR. This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation, warranty or guarantee expressed or implied, is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license under valid patents. This SDS provides selected regulatory information on this product, including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.

Vertical lines in the left-hand margin indicate changes compared with the previous version.

All deliveries are subject to the WACKER SILICONES Health Care Policy, which is available at [www.wacker.com](http://www.wacker.com).



**Safety Data Sheet**

Material: 70702818

SEMICOSIL® 964

Version: 2.1 (US)

Date of print: 04/30/2018

Date of last alteration: 06/23/2015

**16.2 Glossary of Terms:**

ACGIH - American Conference of Governmental Industrial Hygienists

DOT - Department of Transportation

hPa - Hectopascals

mPa\*s - Milli Pascal-Seconds

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit

ppm - Parts per Million

SARA - Superfund Amendments and Reauthorization Act

STEL - Short Term Exposure Limit

TSCA - Toxic Substances Control Act

TWA - Time Weighted Average

WHMIS - Canadian Workplace Hazardous Materials Identification System

**Flash point determination methods**

ASTM D56.....

ASTM D92, DIN 51376, ISO 2592 .....

ASTM D93, DIN 51758, ISO 2719 .....

ASTM D3278, DIN 55680, ISO 3679 .....

DIN 51755.....

**Common name**

Tagliabue (Tag) closed cup

Cleveland open cup

Pensky-Martens closed cup

Setaflash or Rapid closed cup

Abel-Pensky closed cup

**16.3 Conversion table:**

Pressure:.....: 1 hPa \* 0.75 = 1 mm Hg = 1 torr; 1 bar = 1000 hPa

Viscosity:.....: 1 mPa\*s = 1 centipoise (cP)