

# SAFETY DATA SHEET

## TMC-705

### SECTION 1: IDENTIFICATION

#### 1.1. Product identifier:

**Trade name:** TMC-705

**Other names / Synonyms:** 3390-61-2  
1,3,5-Trimethyl-1,1,3,5,5-pentaphenyltrisiloxane  
1,1,3,5,5-Pentaphenyl-1,3,5-trimethyltrisiloxane  
methyl-bis[[methyl(diphenyl)silyl]oxy]-phenylsilane  
Trimethyl pentaphenyl trisiloxane

**Product no.:** 4084, 4084-8.5, 4084-44, 4084-550

**Other means of identification:** CAS No.: 3390-61-2

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

**Relevant identified uses of the substance or mixture:** Diffusion Pump Oil  
Restricted to professional users.

**Uses advised against :** None known.

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

**Company and address:** TMC Industries, Inc.  
1423 Mill Lane  
Waconia, Minnesota 55387  
USA  
TF: +1 (800) 772-8179  
www.tmcindustries.com

**Contact person:** Nick Hansen

**E-mail:** sales@tmcindustries.com

**SDS date:** 6/13/2024

**SDS Version:** 1.0

#### 1.4. Emergency telephone number:

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case  
See also section 4 "First aid measures".

Emergency Telephone Number: CHEMTREC 24-HR Emergency USA, Canada, Puerto Rico, US Virgin

Islands (800) 424-9300.

## SECTION 2: HAZARD(S) IDENTIFICATION

### OSHA/HCS status:

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

### 2.1. Classification of the substance or mixture:

Eye Irrit. 2; H319, Causes serious eye irritation.

### 2.2. Label elements:

#### Hazard pictogram(s):



#### Signal word:

Warning

#### Hazard statement(s):

Causes serious eye irritation. (H319)

#### Precautionary statement(s):

#### General:

-

#### Prevention:

Wear eye protection/protective gloves. (P280)

#### Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
If eye irritation persists: Get medical advice/attention. (P337+P313)

#### Storage:

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#### Disposal:

Refer to the manufacturer/supplier for information on disposal/ recovery/ recycling. (P503)

#### Additional labelling:

Not applicable.

Labeling of packaging with a maximum content of 100 ml

### 2.3. Other hazards:

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances:

Product/substance	Identifiers	% w/w	Classification	Note
1,3,5-trimethyl-1,1,3,5,5-pentaphenyltrisiloxane	CAS No.: 3390-61-2	100%	Eye Irrit. 2, H319	

### 3.2. Mixtures:

Not applicable. This product is a substance.

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

### Other information:

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## SECTION 4: FIRST-AID MEASURES

### 4.1. Description of first aid measures:

<b>General information:</b>	If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.
<b>Inhalation:</b>	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
<b>Skin contact:</b>	Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.
<b>Eye contact:</b>	If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.
<b>Ingestion:</b>	If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.
<b>Burns:</b>	Not applicable.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

If eye irritation persists: Get medical advice/attention.

**Information to medics:**

Bring this safety data sheet or the label from this product.

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## SECTION 5: FIRE-FIGHTING MEASURES

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**5.1. Extinguishing media:**

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO<sub>2</sub>)

**5.3. Advice for firefighters:**

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Contaminated areas may be slippery.

**6.2. Environmental precautions:**

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

**6.4. Reference to other sections:**

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

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## SECTION 7: HANDLING AND STORAGE

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**7.1. Precautions for safe handling:**

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

**7.2. Conditions for safe storage, including any incompatibilities:**

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

- Recommended storage material:** Plastic Container  
Metal Container.
- Storage temperature:** Keep container closed when not in use  
Store in a cool place  
Do not lay the container on its side  
Avoid contact with eyes and prolonged or repeated skin contact  
Keep out of reach of children.  
Keep away from heat and flame
- Incompatible materials:** None.

### 7.3. Specific end use(s):

This product should only be used for applications quoted in section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters:

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

### 8.2. Exposure controls:

Apply general control to prevent unnecessary exposure

**General recommendations:** Smoking, drinking and consumption of food is not allowed in the work area.

**Exposure scenarios:** There are no exposure scenarios implemented for this product.

**Exposure limits:** Occupational exposure limits have not been defined for the substances in this product.

**Appropriate technical measures:** Apply standard precautions during use of the product. Avoid inhalation of vapours.

**Hygiene measures:** In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

**Measures to avoid environmental exposure:** No specific requirements.

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

**Generally:** Use only protective equipment with a recognized certification mark, e.g. the UL mark.


### Respiratory Equipment:

No specific requirements


### Skin protection:

No specific requirements.

**Hand protection:**

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Plastic film or rubber gloves.				

**Eye protection:**

Type	Standards	
Safety glasses	EN166	

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties:**

- Physical state:** Liquid
- Colour:** Colourless, Transparent
- Odour:** None
- Odour threshold (ppm):** No data available
- pH:** No data available
- Density (g/cm<sup>3</sup>):** No data available
- Relative density:** No data available
- Kinematic viscosity:** No data available
- Particle characteristics:** No data available
- Phase changes:**
- Melting point (°F):** No data available
- Softening point/range (°F):** Does not apply to liquids.
- Boiling point (°F):** -
- Boiling point (°C):** 243
- Vapour pressure:** Negligible (25 °C)
- Relative vapour density:** Not applicable
- Decomposition temperature (°F):** No data available

**Data on fire and explosion hazards:**

**Flash point (°F):** No data available

**Flammability (°F):** No data available

**Auto-ignition temperature (°F):** No data available

**Explosion limits (% v/v):** No data available

**Solubility:**

**Solubility in water:** Insoluble

**n-octanol/water coefficient (LogKow):** No data available

**Solubility in fat (g/L):** Not applicable

**9.2. Other information:**

**Thermal stability:** Stable under normal conditions

**Evaporation rate (n-butylacetate = 100):** Negligible (Butyl Acetate=1)

**Other physical and chemical parameters:** No data available.

**Molecular Weight (g/mol):** 546

**Oxidizing properties:** No data available

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity:**

No data available.

**10.2. Chemical stability:**

The product is stable under the conditions, noted in section 7 "Handling and storage".

**10.3. Possibility of hazardous reactions:**

None known.

**10.4. Conditions to avoid:**

None Known

**10.5. Incompatible materials:**

None.

**10.6. Hazardous decomposition products:**

The product is not degraded when used as specified in section 1.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects:

#### Acute toxicity:

Product/substance	TMC-705
Species:	Rat
Test:	LC50
Result:	>5 g/kg

#### Skin corrosion/irritation:

Based on available data, the classification criteria are not met.

#### Serious eye damage/irritation:

Causes serious eye irritation.

#### Respiratory sensitisation:

Based on available data, the classification criteria are not met.

#### Skin sensitisation:

Based on available data, the classification criteria are not met.

#### Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

#### Carcinogenicity:

Product/substance	TMC-705
Conclusion:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

#### Reproductive toxicity:

Based on available data, the classification criteria are not met.

#### STOT-single exposure:

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure:

Based on available data, the classification criteria are not met.

#### Aspiration hazard:

Based on available data, the classification criteria are not met.

#### Long term effects:

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

#### Other information:

None known.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity:



Product/substance TMC-705  
 Other information: None known.

**12.2. Persistence and degradability:**

Product/substance TMC-705  
 Conclusion: No Data Available

**12.3. Bioaccumulative potential:**

Product/substance TMC-705  
 Conclusion: No Data Available

**12.4. Mobility in soil:**

No data available.

**12.5. Results of PBT and vPvB assessment:**

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

**12.6. Other adverse effects:**

None known.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods:**

This material can be reclaimed by TMC Industries. Contact TMC for more information.

**RCRA Hazardous waste ("P" and "U" list) (40 CFR 261):**

None of the components are listed

**Specific labelling:**

**Contaminated packing:**

Packaging containing residues of the product must be disposed of similarly to the product.

**SECTION 14: TRANSPORT INFORMATION**

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

**Additional information:**

Not dangerous goods according to DOT, IATA and IMDG.

**14.6. Special precautions for user:**

Not applicable.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code:**

No data available.

**SECTION 15: REGULATORY INFORMATION**

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

**15.2. U.S. Federal regulations:**

**TSCA (the non-confidential portion):** None of the components are listed

**Clean Air Act:** None of the components are listed

**EPCRA Section 302:** None of the components are listed

**EPCRA Section 304:** None of the components are listed

**EPCRA section 313:** None of the components are listed

**CERCLA:** None of the components are listed

**State regulations:**

**California / Prop. 65:** None of the components are listed

**Massachusetts / Right To Know Act:** None of the components are listed

**New Jersey / Right To Know Act:** None of the components are listed

**New York / Right To Know Act:** None of the components are listed

**Pennsylvania / Right To Know Act:** None of the components are listed

**15.4. Restrictions for application:**

Restricted to professional users.

**15.5. Demands for specific education:**

No specific requirements.

**15.6. Additional information:**

Not applicable.

**15.7. Chemical safety assessment:**

No

### 15.8. Sources:

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## SECTION 16: OTHER INFORMATION

### Full text of H-phrases as mentioned in section 3:

H319, Causes serious eye irritation.

### The full text of identified uses as mentioned in section 1:

None known.

### Abbreviations and acronyms:

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organisation for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

PBT = Persistent, Bioaccumulative and Toxic

RCRA = Resource Conservation and Recovery Act

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SARA = Superfund Amendments and Reauthorization Act

SCL = A specific concentration limit.

STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

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TSCA = The Toxic Substances Control Act

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

**Additional information:**

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

**The safety data sheet is validated by:**

TMC Industries, Inc. - QC Department

**Other:**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en