UNITEDSILICONE

SAFETY DATA SHEET (SDS)

Revision Date: 11/05/2019

Section 1.-PRODUCT IDENTIFICATION: TL90 Thermosil

ITW United Silicone
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Lancaster, NY 14086
TELEPHONE: 716-681-8222

Emergency Response Number
1 (800) 535-5053

1.1	IUPAC Name:	Dimethyl siloxane, dimethylvinyl-terminated
1.2	Synonyms:	Silicone rubber, silicone elastomer
1.3	Molecular Formula:	Undefined
1.4	Structural Formula:	Undefined
1.5	Purity (w/w):	Not determined
1.6	Significant impurities or additives:	Silicone Dioxide
1.7	Known Uses:	Industrial manufacture of silicone parts

Section 2.-HAZARD IDENTIFICATION:

GHS Classification

Reproductive toxicity: Category 2

GHS Label elements, including precautionary statements

Pictogram:

Signal word: Warning

Hazard statements(s):

H361. Suspected of damaging fertility or the unborn child.

Precautionary statements(s):

P201. Obtain special instructions before use.
P202. Do not handle until all safety precautions have been read and understood.
P280. Wear protective gloves / protective clothing/ eye protection/ face protection.
P308. + P313. IF exposed or concerned: Get medical advice/ attention.
P405. Store locked up.
P501. Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification: health 0, Flammability 1, Physical 0

NFPA Profile: Health 0, Flammability 1, Instability/Reactivity 0

The classification is based on expected routes of exposure. Please review for unusual applications of this product. This classification has been made under GHS classification systems.

Section 3.-COMPOSITION/INFORMATION ON INGREDIENTS:

Silicone Rubber or Silicone Rubber Crepe

CAS NUMBER	CHEMICAL NAME	PERCENT	TLV	PEL
102782-80-9	Dimethyl, methylvinylsiloxane, hydroxy-term and dimethyl siloxane, hydroxy-term reaction with silica (silica polymer bound)	5 - 50	80 mg/M3 (TWA, silica)	N/A
556-67-2	Octamethylcyclotetrasiloxane	0.1 - 1	10 ppm (TWA)	N/A
1344-28-1	ALUMINUM OXIDE	<60	10 MG/M3	15 MG/M3

Section 4.-FIRST-AID MEASURES:

IF IN EYES: No effects expected. If contact occurs and irritation is present, wash with plenty of water then get medical advice /attention. If eye irritation persists: get medical advice /attention.

IF ON SKIN: No health effects expected. Wash hands as a precaution. If irritation does occur wash with soap and water. Discontinue use of the product. If skin irritation or rash occurs, get medical advice / attention.

IF INHALED: If symptoms are experienced remove source of contamination or move victim to fresh air. If irritation persists, get medical advice /attention. Call a poison center if you feel unwell.

IF SWALLOWED: Get medical advice/attention if irritation occurs. CALL POISON CENTER IF YOU FEEL UNWELL.

PHYSICIANS: Treat according to person's condition and specifics of exposure.

Section 5.-FIRE-FIGHTING MEASURES

Flash Point: Not applicable

Auto-ignition Temperature: Not applicable

Flammability Limits in Air: Not determined

In case of fire: In case of major fire and large quantities use dry chemical, foam or water spray to extinguish.

Fire Fighting Measures: Use carbon dioxide, dry chemical, or water spray in case of small fire. Water can be used to cool.

Unusual Fire Hazards: Protective clothing and self-contained breathing apparatus should be worn in fighting large fires. Use water spray to keep fire exposed containers cool. Determine evacuation needs and isolation of effected areas from smoke and heat.

None are known

Section 6.-ACCIDENTAL RELEASE MEASURES

Observe all personal protective equipment recommendations in Section 5 and 8. Collect and contain for salvage or disposal. Local, state, and federal laws must be followed in this regard. Sections 13 and 15 may assist in providing guidance as to the nature of federal and state law that needs to be maintained and followed.

Section 7. -HANDLING AND STORAGE

COMMENTS: Traces of benzene (carcinogen) may form if heated in air above 300 oF (140 oC). Provide ventilation to control fume exposure within inhalation guidelines when handling at elevated temperature. Review the OSHA benzene regulation for detailed information on safe handling requirements. Use at high temperatures may evolve or generate heptamethylcyclotetrasiloxane, 2,6-cis-diphenylhexamethylcyclotetrasiloxane, and other siloxane cyclics. Provide adequate ventilation to control within exposure guidelines. Personnel should wear organic vapor respirators until workplace exposure levels have been determined.

Section 8.-EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure limits have not been established for this product. Consistent with good occupational hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures, including engineering control, ventilation and isolation. See section 3 for additional information.

CAS# 102782-80-9	silica polymer bound	80 mg/M3 (TWA, silica)
CAS# 556-67-2	Octamethylcyclotetrasiloxane	10 ppm (TWA)

SEE SECTION 3 FOR ADDITIONAL EXPOSURE WARNINGS

Section 9.-PHYSICAL AND CHEMICAL PROPERTIES

9.1	Physical form:	PASTE LIKE - LITTLE ODOR
9.2	Color:	
9.3	Odor:	Little / none
9.4	Odor threshold	Unknown
9.5	pH:	6.5 - 10 expected; not measured
9.6	Molecular Weight:	majority over 100,000 g/mole
9.7	Melting point / range (°C):	Does not melt
9.8	Initial boiling point / range (°C):	Does not boil
9.9	Decomposition Temperature:	Not determined
9.10	Vapor pressure:	< 1
9.11	Relative density (g/cc):	2.15
9.12	Vapor density (air = 1):	No vapor expected
9.13	Fat solubility (mg/kg, °C):	N/A
9.14	Water solubility (mg/kg, °C):	N/A
9.15	Partition coefficient (log Pow):	Cannot be determined
9.16	Flammability:	N/A
	Flash point (°C):	> 100
	Explosivity limits (% v/v:	N/A
9.17	Auto-ignition temperature (°C):	> 600
9.18	Explosively:	May form an explosive dust if ground and finely divided.
9.19	Kst (dust deflagration):	> 0 and < 200 bar*m/s (not specifically tested; given as a guide only).
9.20	Oxidizing properties:	None known
9.21	Other physical-chemical properties:	None
9.22	Viscosity:	Paste

Section10. -STABILITY AND REACTIVITY

Reactivity:	Normally stable
Chemical Stability:	Will solidify when heated
Hazardous Polymerization Conditions: Conditions to avoid:	Will not occur
Incompatible materials:	Closed heating of the product can produce toxic gas Oxidizing material can cause a reaction
Hazardous Decomposition Products:	High temperature thermal breakdown of this material in fire or very high heat condition may produce: carbon dioxide, carbon monoxide, silicon dioxide, formaldehyde, benzene, and nitrogen oxides. Proper ventilation must be used when heat aging this product or vulcanized product.

Section 11.-TOXICOLOGICAL INFORMATION

11.1 Available testing on dimethylsiloxanes
Acute toxicity Oral: None known

Similar Product tested: Wipe off and flush with water

Oral exposure	LD50>2000 mg/kg	Rat	Conclusion by analogy
Dermal	LD50>2000 mg/kg	Rat	Conclusion by analogy

11.2 Acute toxicity Inhalation: None known

11.3 Skin irritation / corrosion: None known

Based on similar product testing: None known

None irritating	Rabbit	Rat	Conclusion by analogy

11.4 Serious damage to eyes / eye irritation: None known

None irritating	Rabbit	Rat	Conclusion by analogy

11.5 Skin and respiratory sensitization: None known

Dermal	Not sensitizing	Guinea-pig; Buhler	Conclusion by analogy

11.6 Specific target organ toxicity following single or repeated exposure: None known

11.7 Toxicity following single exposure:
Oral None known
Inhalation None known

11.8 Toxicity repeated exposure:
Oral None known
Inhalation None known

Further data suggests: Inhalation of OMCTS/D4 has been shown in rodents repeatedly exposed by inhalation or ingestion to increase liver weight as compared to controls. No gross or histopathological liver effects were noted. The relevance of these effects in humans is not known. Formaldehyde if formed at 150 °C by heating this product and is a known carcinogen and skin / respiratory sensitizer. Good ventilation and industrial practices should eliminate this risk.

11.9 Toxicity repeated exposure: None known

11.10 Reproductive Toxicity: Suspected of damaging fertility

Further data suggests: Inhalation of OMCTS/D4 from rats that decreased mean live litter sizes and prolonged labor (dy stocia) were observed at the 500 ppm and 700 ppm exposure levels. The relevance of these effects in humans cannot be determined and the data does not exist for this exposure. This would be considered a high exposure level and would unlikely to be observed in industry or application. OMCTS/D4 may be generated when this product is heated above 150 °C.

Section .12.-ECOLOGICAL INFORMATION

Environmental Fate

Air:	This product is a high molecular weight silicone polymer and other solid materials. Unless ground to produce dust or particles, atmospheric contamination should not occur.
Water:	This product is a solid and has low solubility in water. It will sink in water.
Soil:	This material is unlikely to further transform in a solid waste or landfill.
Degradation:	This material is a high molecular weight solid. It is amenable to recycling. The product is not biodegradable. The product will be removed >80 % during the sewage treatment process.

Environmental Effects

Toxicity to water organisms:	This material is a high molecular weight polymer. The risk should be low to aquatic organisms.
Toxicity to soil organisms:	This compound is solid and does not dissolve or extract to significant amounts in water. It is not likely to present a danger to terrestrial organisms.
Bioaccumulation:	This product is a solid which is not soluble in water and if ingested will not be absorbed. There is some experimental evidence that OMCTS/D4 (byproduct from heating silicone rubber) can accumulate in the environment in confined spaces and areas. This data is extremely limited and the exact effects in the environment are not known. The preponderance of the evidence would suggest that this bioaccumulation is irrelevant and only experimentally observed.
Water treatment plants:	This compound is a solid and is unlikely to affect bacteria in water treatment plants. Some experiments indicate that silicone is highly biologically compatible.

Section 13.-DISPOSAL CONSIDERATIONS

RCRA Hazard Class (40 CFR 261) When discarding this material, as received, is it hazardous waste as defined in this requirement:	No

Section 14.-TRANSPORT INFORMATION

DOT Road Shipment Information (49 CFR 172.101):	Not Subject
Ocean Shipment (IMDG):	Not Subject
Air Shipment (IATA):	Not Subject

Section 15 . - REGULATOR INFORMATION

The contents of this SDS comply with United Nations (GHS) or Globally Harmonized System of Classification and Labeling of Chemicals.

The chemical substances in the product are listed on the TSCA inventory of chemical substances.

California Proposition 65: This product may contain chemicals or produce chemicals when heated known to the state of

EPA SARA Title III Chemical Listings:

Section 302 Extremely Hazardous Substances (40 CFR 355):	None
Section 304 CERCLA Hazardous Substances (40 CFR (302):	None
Section 311/312 Hazard Class (40 CFR 370):	
Acute:	No
Chronic:	Yes, fertility effects
Fire:	No
Pressure:	No
Reactive:	No
Section 311 Toxic Chemicals (40 CFR 372):	None present in a regulated quantity nor intentionally added

Section .16.-OTHER INFORMATION

Prepared by: ITW United Silicone, Inc.

The information is provided in good faith. These are not typical values and should not be taken as such. No warranty is expressed or implied. The safety information is believed to be generally applicable. The end user should review the information in this data sheet for any unknown or unrelated safety issues that may occur for nonstandard use of this product. All SDS's should be reviewed by experts in the field. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable.