

Prod.Name: 5900 FLANGE SEALANT
SENSOR-SAFE
Manufacturer: HENKEL LOCTITE CORP
HMCS ID: 307554
SUC: 06 - Adhesives, Sealers - General

MATERIAL SAFETY DATA SHEET

Revision: 23.Jun.2003
Effective: 23.Jun.2003
Print Date: 16.Sep.2005
Page: 1 of 6

1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT INFORMATION

Product Name: 5900 FLANGE SEALANT SENSOR-SAFE

Product Synonyms:

5900 RTV SILICONE (FORMER)
5900 SILICONE (FORMER)
LOCTITE 5900 FLANGE SEALANT SENSOR-SAFE (FORMER)
RTV SILICONE 5900
12346286
20166 (ITEM NO.)
20168 (ITEM NO.)
L5-624
RTV SILICONE SEALANT

External Keys:

9985990 Productive Materials
9985990D Productive Materials
9985990P Productive Materials
12346286 Distributable Material (Part #)
12378479 Distributable Material (Part #)
RTV SILICONE Primary Tradename - Distributable Material
SEALANT

MANUFACTURER INFORMATION

Manufacturer: HENKEL LOCTITE CORP

Address:

1001 TROUT BROOK USA CONNECTI 06067-3 ROCKY HILL MAILING
CROSSING CUT 910

Communication Lines:

Phone 860-571-5100 EMERGENCY
Phone 860-571-5465 FAX
Phone 860-520-5000 INFO
Phone 800-243-4874 INFO
Phone 800-334-5124 J-.S. INFO
Internet www.loctite.com Website with MSDS

Comment:

EMERGENCY OVERVIEW: PHYSICAL STATE: PASTE. COLOR: BLACK. ODOR: MILD. CAUTION: CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.PREPARED BY: LOU FABRIZIO, SENIOR HEALTH AND REGULATORY AFFAIRS SPECIALIST.

2 INGREDIENT INFORMATION

FORMULATION

Ingredients:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Prefix</u>	<u>Value</u>	<u>Unit</u>	<u>Exposure Limits</u>
STEARIC ACID	57-11-4	Range	0.5 - 2	% Wt	No
METHANOL	67-56-1	Range	0.1	% Wt	Yes
2-BUTANONE, OXIME	96-29-7	<	10	% Wt	No
CARBONIC ACID, CALCIUM SALT (1:1)	471-34-1	Range	40 - 50	% Wt	No
CARBON BLACK	1333-86-4	Range	1 - 3	% Wt	Yes
SF-96	63148-62-9	Range	5 - 15	% Wt	No
Siloxanes and Silicones, di-Me, hydroxy-terminated	70131-67-8	Range	30 - 40	% Wt	No
Silane, chlorotrimethyl-, hydrolysis products with silica	71889-01-5	Range	1 - 5	% Wt	No
OXIMINOSILANE	989971-09-1	Range	1 - 10	% Wt	No

Comment:

Other Information: ACGIH TLV:(471-34-1): 10 MG/M3 TWA (PARTICULATE MATTER CONTAINING NO ASBESTOS AND <1% CRYSTALLINE SILICA).(96-29-7): NONE.OSHA PEL:(471-34-1): 15 MG/M3 TWA (TOTAL DUST). 5 MG/M3 TWA (RESPIRABLE FRACTION).(96-29-7): NONE.OTHER:(1333-86-4), (471-34-1), (67-56-1), (96-29-7): NONE.EXPOSURE TO MOISTURE DURING CURE WILL RELEASE 3-5% METHYL ALCOHOL. (96-29-7) (MEKO) IS FORMED DURING CURE. THIS PRODUCT WILL RELEASE UP TO 5% (96-29-7).

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Revision: 23.Jun.2003
Effective: 23.Jun.2003
Print Date: 16.Sep.2005
Page: 2 of 6

3 HAZARDS IDENTIFICATION

Hazards Overview:

Skin Primary Entry: Yes. Eye Primary Entry: Yes. Inhalation Primary Entry: Yes. Ingestion Primary Entry: Yes.

Specific Hazards:

RELEVANT ROUTES OF EXPOSURE: SKIN, INHALATION, EYES, INGESTION.

Specific Hazards (Routes Of Exposure):

<u>Exposure Routes</u>	<u>Exposure Duration</u>	<u>Observation</u>
Skin Contact	General	POTENTIAL HEALTH EFFECTS: VAPORS AND MIST IRRITATE THE RESPIRATORY TRACT AND NASAL PASSAGES. WHEN HEATED TO TEMPERATURES EXCEEDING 300 F (150 C) IN THE PRESENCE OF AIR, SILICONES MAY FORM FORMALDEHYDE VAPORS. FORMALDEHYDE IS A KNOWN SKIN SENSITIZER.THE SILANE IS A SKIN IRRITANT AND MAY CAUSE SKIN BURNS.SKIN CONTACT: MAY CAUSE SKIN IRRITATION WITH DISCOMFORT OR RASH.
Eye Contact	General	POTENTIAL HEALTH EFFECTS: THE SILANE IS A EYE IRRITANT.EYE CONTACT: VAPORS MAY IRRITATE EYES. CONTACT WITH EYES WILL CAUSE IRRITATION.
Inhalation	General	POTENTIAL HEALTH EFFECTS: VAPORS AND MIST IRRITATE THE RESPIRATORY TRACT AND NASAL PASSAGES. WHEN HEATED TO TEMPERATURES EXCEEDING 300 F (150 C) IN THE PRESENCE OF AIR, SILICONES MAY FORM FORMALDEHYDE VAPORS. FORMALDEHYDE IS A KNOWN RESPIRATORY SENSITIZER. VAPORS IRRITATE THE EYES, NOSE AND THROAT. SAFE HANDLING CONDITIONS MAY BE MAINTAINED BY KEEPING FORMALDEHYDE VAPOR CONCENTRATIONS BELOW THE OSHA PERMISSIBLE LIMIT. THE SILANE IS A SKIN AND EYE IRRITANT AND MAY CAUSE SKIN BURNS. OVEREXPOSURE MAY CAUSE COMA AND RESPIRATORY FAILURE. THE LOW CONCENTRATION MAKES SUCH OVEREXPOSURE UNLIKELY AND MINIMIZES ITS AFFECT ON HEALTH AND SAFETY.
Ingestion	General	POTENTIAL HEALTH EFFECTS: MODERATELY TOXIC BY INGESTION. NOT EXPECTED UNDER NORMAL CONDITIONS OF USE.

Medical Conditions Aggravated By Exposure:

EXISTING CONDITIONS AGGRAVATED BY EXPOSURE: SKIN DISORDERS.

Comment:

Additional Health Hazard Data: LITERATURE REFERENCED TARGET ORGANS AND OTHER HEALTH EFFECTS:(1333-86-4): RESPIRATORY.(989971091): ALLERGEN, IRRITANT.(471-34-1): NUISANCE DUST.(67-56-1): EYES, HEART, IRRITANT, KIDNEY, LIVER, METABOLIC, NERVOUS SYSTEM.(96-29-7): ALLERGEN, BLOOD, CENTRAL NERVOUS SYSTEM, EYES, IRRITANT.

4 FIRST AID MEASURES

First Aid By::

Inhalation	REMOVE TO FRESH AIR. IF DISCOMFORT PERSISTS SEEK MEDICAL ATTENTION.
Skin Contact	CONTACT: WIPE OFF PASTE WITH PAPER TOWEL OR CLOTH. WASH WITH SOAP AND WATER.
Eye Contact	CONTACT: RINSE IMMEDIATELY WITH PLENTY OF WATER, ALSO UNDER THE EYELIDS, FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION.
Ingestion	DO NOT INDUCE VOMITING. KEEP INDIVIDUAL CALM. OBTAIN MEDICAL ATTENTION.

5 FIRE FIGHTING MEASURES

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 SENSOR-SAFE
Manufacturer: HENKEL LOCTITE CORP
HMCS ID: 307554
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MATERIAL SAFETY DATA SHEET

Revision: 23.Jun.2003
Effective: 23.Jun.2003
Print Date: 16.Sep.2005
Page: 3 of 6

Flash Point:

> 93 C TCC.
 > 200 F TCC.

Flash Point Method Text:TAGLIABUE
 CLOSED CUP.
 Flash Point Method Text:TAGLIABUE
 CLOSED CUP.

Autoignition Temperature:

NOT AVAILABLE.

Fire and Explosion Hazards:

UNUSUAL FIRE OR EXPLOSION HAZARDS: NONE.

Special Fire Fighting Procedures:

EXTINGUISHING MEDIA: CARBON DIOXIDE (CO2), FOAM, DRY CHEMICAL.SPECIAL FIRE FIGHTING PROCEDURES: NONE.

Comment:

NFPA ASSIGNED BY GENERAL MOTORS TECHNICAL REVIEW.HMIS: PERSONAL PROTECTION: SEE SECTION 8.FLAMMABLE/EXPLOSIVE LIMITS-LOWER %, UPPER %: NOT APPLICABLE.HAZARDOUS COMBUSTION PRODUCTS: FORMALDEHYDE, SILICA FUME.

6 ACCIDENTAL RELEASE MEASURES

Comment:

Spill or Leak Procedures: ENVIRONMENTAL PRECAUTIONS: DO NOT FLUSH INTO SURFACE WATER OR SANITARY SEWER SYSTEM.CLEAN-UP METHODS: SCRAPE UP AS MUCH MATERIAL AS POSSIBLE. MAINTAIN GOOD VENTILATION FOR LARGE SPILLS. PLACE SCRAP MATERIAL IN A WELL VENTILATED AREA AND ALLOW TO CURE TO RUBBER.

7 HANDLING AND STORAGE

STORAGE

Additional Information on Storage Conditions:

Precautions to be Taken in Handling and Storage: SAFE HANDLING CONDITIONS MAY BE MAINTAINED BY KEEPING FORMALDEHYDE VAPOR CONCENTRATIONS BELOW THE OSHA PERMISSIBLE LIMIT.HANDLING: AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING VAPOR AND MIST. WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR CONTACT LENSES.STORAGE: STORE IN A DRY AREA BELOW 90 F. KEEP CONTAINER CLOSED.INCOMPATIBLE PRODUCTS: NEVER ALLOW PRODUCT TO GET IN CONTACT WITH WATER DURING STORAGE.FOR INFORMATION ON PRODUCT SHELF LIFE CONTACT HENKEL LOCTITE CUSTOMER SERVICE AT (800) 243-4874.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:

Engineering Controls: USE LOCAL EXHAUST VENTILATION TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW ESTABLISHED EXPOSURE LIMITS.

EXPOSURE LIMITS

Limit Values:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Type</u>	<u>Value</u>	<u>Specificati on</u>	<u>Source</u>
METHANOL	67-56-1	PEL-T WA	200ppm	-	OSHA - Permissible Exposure Limits (PELs)
METHANOL	67-56-1	GM OEG- TWA	200ppm	-	Threshold Limit Values (TLVs) - ACGIH
METHANOL	67-56-1	GM OEG- STEL	250ppm	-	Threshold Limit Values (TLVs) - ACGIH
METHANOL	67-56-1	TLV- TWA	200ppm	-	GM Occupational Exposure Guidelines (OEG)
METHANOL	67-56-1	TLV- STEL	250ppm	-	GM Occupational

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MATERIAL SAFETY DATA SHEET

Revision: 23.Jun.2003
Effective: 23.Jun.2003
Print Date: 16.Sep.2005
Page: 4 of 6

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Type</u>	<u>Value</u>	<u>Specificati on</u>	<u>Source</u>
METHANOL	67-56-1	State-TWA	200ppm	-	Exposure Guidelines (OEG) MICHIGAN
METHANOL	67-56-1	State-STEL	250ppm	-	MICHIGAN
METHANOL	67-56-1	State-TWA	200ppm	-	NEW YORK
METHANOL	67-56-1	State-STEL	250ppm	-	NEW YORK
METHANOL	67-56-1	State-TWA	200ppm	-	TENNESSEE
METHANOL	67-56-1	State-STEL	250ppm	-	TENNESSEE
CARBON BLACK	1333-86-4	PEL-TWA	3.5mg/m3	-	OSHA - Permissible Exposure Limits (PELs)
CARBON BLACK	1333-86-4	GM OEG-TWA	3.5mg/m3	-	Threshold Limit Values (TLVs) - ACGIH
CARBON BLACK	1333-86-4	TLV-TWA	3.5mg/m3	-	GM Occupational Exposure Guidelines (OEG)
CARBON BLACK	1333-86-4	State-TWA	3.5mg/m3	-	MICHIGAN
CARBON BLACK	1333-86-4	State-TWA	3.5mg/m3	-	NEW YORK
CARBON BLACK	1333-86-4	State-TWA	3.5mg/m3	-	TENNESSEE

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE):

Eye Protection SAFETY GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.
 Skin Protection IMPERVIOUS CLOTHING.
 Respiratory Protection USE A NIOSH APPROVED AIR-PURIFYING RESPIRATOR IF THE POTENTIAL TO EXCEED ESTABLISHED EXPOSURE LIMITS EXISTS.
 Hand Protection CHEMICAL RESISTANT, IMPERMEABLE GLOVES.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical State: Physical State: Solid.
Color: BLACK PASTE.
Odor: MILD ODOR.

PHYSICAL PROPERTIES

pH Value:

Solution NOT APPLICABLE.

Changes of State:

Boiling Point BOILING POINT/RANGE: NOT APPLICABLE.
 Melting/Freezing Point MELTING POINT/RANGE: NOT AVAILABLE.

Vapor Pressure:

<5 MMHG AT 20 C (68 F).

Vapor Density:

HEAVIER THAN AIR.

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Revision: 23.Jun.2003
Effective: 23.Jun.2003
Print Date: 16.Sep.2005
Page: 5 of 6

Evaporation Rate:
NOT AVAILABLE.

Specific Gravity:
= 1.31 AT 20 DEG C.

Solubility:
Water Solubility in Water Text:POLYMERIZES IN PRESENCE OF WATER.

VOC:
VOC 0.44 lb/gal
Theoretical VOC (by wt.) 0.44

Comment:
PARTITION COEFFICIENT (N-OCTANOL WATER): NOT AVAILABLE. VOC CONTENT: 4.01%, 52.5 GRAMS/LITER.

10 STABILITY AND REACTIVITY

STABILITY INFORMATION

Stability Under Normal Conditions: Stable

Hazardous Polymerization:

Hazardous Polymerization: None. Hazardous Polymerization Text: WILL NOT OCCUR.

HAZARDOUS DECOMPOSITION

Reactions:

<u>Type of Reaction</u>	<u>Reaction Products</u>
Decomposition	(96-29-7) FORMED DURING CURE.

Comment:

Stability Text: STABLE. INCOMPATIBILITY: POLYMERIZES ON CONTACT WITH WATER. CONDITIONS TO AVOID: MOISTURE.

11 TOXICOLOGICAL INFORMATION

CLASSIFICATION OF INGREDIENTS

Carcinogenicity:

POTENTIAL HEALTH EFFECTS: INHALATION: VAPORS AND MIST IRRITATE THE RESPIRATORY TRACT AND NASAL PASSAGES. WHEN HEATED TO TEMPERATURES EXCEEDING 300 F (150 C) IN THE PRESENCE OF AIR, SILICONES MAY FORM FORMALDEHYDE VAPORS. FORMALDEHYDE IS A POTENTIAL CANCER HAZARD.TOXICOLOGICAL INFORMATION: CARCINOGEN STATUS: (1333-86-4): IARC CARCINOGEN: GROUP 2B; NTP CARCINOGEN, OSHA CARCINOGEN: NO.NTP CARCINOGEN, IARC CARCINOGEN, OSHA CARCINOGEN: (989971091), (471-34-1), (67-56-1) (96-29-7); NO.LITERATURE REFERENCED TARGET ORGANS AND OTHER HEALTH EFFECTS:(1333-86-4): SOME EVIDENCE OF CARCINOGENICITY.(96-29-7): SOME EVIDENCE OF CARCINOGENICITY.

Comment:

Toxicological Data Unlimited Text: LITERATURE REFERENCED TARGET ORGAN AND OTHER HEALTH EFFECTS: (67-56-1): REPRODUCTIVE.

12 ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT

Comment:

NO SPECIFIC STUDIES HAVE BEEN CONDUCTED BY LOCTITE ON THE ECOTOXICITY OR ENVIRONMENTAL FATE OF THIS MATERIAL; HOWEVER, COMMONLY AVAILABLE DATA ON THE MATERIAL INDICATE THAT UNCONTROLLED RELEASES TO SOIL, GROUNDWATER, OR SURFACE WATERS COULD ENTAIL ACUTE AND/OR CHRONIC ECOLOGICAL EFFECTS, DEPENDING ON THE QUANTITY AND CONCENTRATION OF SUCH RELEASES. RELEASES OF VOLATILE COMPONENTS TO THE ATMOSPHERE ARE NOT BELIEVED TO ENTAIL SIGNIFICANT ECOLOGICAL CONSEQUENCES PROVIDED SUCH RELEASES ARE WITHIN THE EXPOSURE LEVELS SET FORTH IN THIS DOCUMENT. ACCORDINGLY, ALL APPROPRIATE MEASURES SHOULD BE TAKEN TO AVOID UNCONTROLLED RELEASES TO THE ENVIRONMENT, AND ANY SPILLS OR OTHER UNCONTROLLED RELEASES WHICH MAY OCCUR SHOULD BE CONTAINED AND CLEANED UP IMMEDIATELY IN ACCORDANCE WITH SECTION 6.

13 DISPOSAL CONSIDERATIONS

Waste Disposal Information:

DISPOSAL CONSIDERATIONS:INFORMATION PROVIDED IS FOR UNUSED PRODUCT ONLY.RECOMMENDED METHOD OF DISPOSAL: CURE RUBBER CAN BE INCINERATED OR LANDFILLED FOLLOWING EPA AND LOCAL REGULATIONS.EPA HAZARDOUS WASTE NUMBER: NOT A RCRA HAZARDOUS WASTE.

14 TRANSPORT INFORMATION

DOT Information:

U.S. DOT 49 CFR: PROPER SHIPPING NAME: UNRESTRICTED. HAZARD CLASS OR DIVISION: NONE. IDENTIFICATION

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Revision: 23.Jun.2003
Effective: 23.Jun.2003
Print Date: 16.Sep.2005
Page: 6 of 6

NUMBER: NONE. PACKING GROUP: NONE.

Comment:

INTERNATIONAL AIR TRANSPORTATION ICAO/IATA: PROPER SHIPPING NAME: UNRESTRICTED. HAZARD CLASS OR DIVISION: NONE. IDENTIFICATION NUMBER: NONE. PACKING GROUP: NONE. WATER TRANSPORTATION (IMO/IMDG): PROPER SHIPPING NAME: UNRESTRICTED. HAZARD CLASS OR DIVISION: NONE. IDENTIFICATION NUMBER: NONE. PACKING GROUP: NONE. EXCEPTIONS: NONE. MARINE POLLUTANT: NONE.

15 REGULATORY INFORMATION

LABELLING

Hazard Codes:

HMIS Reactivity	0
HMIS Health	1
HMIS Flammability	1
NFPA Flammability	1
NFPA Health	1
NFPA Reactivity	0

NATIONAL REGULATIONS

Immediate Health: No

Delayed Health: Yes

Fire: No

Sudden Pressure Release: No

Reactive: No

Comment:

RCRA Hazardous Waste Number Text: EPA HAZARDOUS WASTE NUMBER: NOT A RCRA HAZARDOUS WASTE.

Comment:

SARA 311/312 ASSIGNED BY GENERAL MOTORS TECHNICAL REVIEW. UNITED STATES REGULATORY INFORMATION: TSCA 8(B) INVENTORY STATUS: ALL COMPONENTS ARE LISTED OR ARE EXEMPT FROM LISTING ON THE TOXIC SUBSTANCES CONTROL ACT INVENTORY. TSCA 12(B) EXPORT NOTIFICATION: (96-29-7). CERCLA/SARA SECTION 302 EHS: NONE. CERCLA/SARA SECTION 311/312: NONE. CERCLA/SARA 313: NONE. CALIFORNIA PROPOSITION 65: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. (108-88-3) <1 PPM; (75-56-9) TRACE; (75-21-8) TRACE; (123-91-1) TRACE. CANADA REGULATORY INFORMATION: CEPA DSL/NDL STATUS: ALL COMPONENTS ARE LISTED ON OR ARE EXEMPT FROM LISTING ON THE DOMESTIC SUBSTANCES LIST.

16 OTHER INFORMATION