MARTIN ENGINEERING CO 404 N 1ST STREET NEPONSET, IL RICHARD FRANK

DOW CORNING CORPORATION MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 3110 RTV SILICONE RUBBER EMERGENCY TELEPHONE NO. (517) 496-5900

SECTION I - GENERAL INFORMATION

MANUFACTURER'S NAME: DOW CORNING CORP. PRODUCT INFORMATION NO. (517) 496-6000 ADDRESS: SOUTH SAGINAW ROAD, MIDLAND MI 48686

PROPER SHIPPING NAME(49CFR 172.101): NONE
D.O.T. HAZARD NAME(49CFR 172.101): NONE
D.O.T. ID NO(49CFR 172.101): NONE
D.O.T. HAZARD CLASS(49CFR 172.101): NONE
RCRA HAZARD CLASS(40CFR 261)(IF DISCARDED): NONE
E.P.A. PRIORITY POLLUTANTS(40CFR 122.53): NONE
NFPA = NATIONAL FIRE PROTECTION ASSOCIATION - 704
HEALTH (NFPA): 1 FLAMMABILITY (NFPA): 1 REACTIVITY (NFPA): 0
CAS NO: MIXTURE DOW CORNING WARNING CODE: NOT USED
GENERIC DESCRIPTION: SILICONE ELASTOMER

SECTION II - HAZARDOUS INGREDIENTS AS DEFINED IN 29 CFR 1910.1200 (CARCINOGENS IDENTIFIED WITH AN ASTERISK *)

CAS NO. INGREDIENT WT% EXPOSURE LIMIT UP TO 15 OSHA PEL AND ACGIH TLV: TWA 0.05 MG/M3 RESPIRABLE DUST 014464461 *CRISTOBALITE 014808607 *QUARTZ UP TO 1 OSHA PEL AND ACGIH TLV: TWA 0.1 MG/M3 RESPIRABLE DUST OBSERVE CRISTOBALITE AND *DIATOMACEOUS EARTH, . 5 068855549 FLUX CALCINED QUARTZ LIMITS ABOVE. OBSERVE PARTICULATES LIMITS. 021645512 ALUMINA HYDRATE 7 OSHA PEL: TWA 15 MG/M3 TOTAL DUST, 5 MG/M3 RESPIRABLE FRACTION. ACGIH TLV: TWA 10 MG/M3 TOTAL DUST. SEE COMMENT. 000682019 TETRAPROPYLORTHOSILICATE

COMMENT: OBSERVE LIMITS FOR N-PROPYL ALCOHOL, FORMED ON EXPOSURE TO WATER OR HUMID AIR. OSHA PEL: TWA 200 PPM, STEL 250 PPM. ACGIH TLV-SKIN: TWA 200 PPM,

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SECTION II - HAZARDOUS INGREDIENTS AS DEFINED IN 29 CFR 1910.1200 (CONTINUED) (CARCINOGENS IDENTIFIED WITH AN ASTERISK *)

STEL 250 PPM.

SECTION III - EFFECTS OF OVEREXPOSURE

EYE: DIRECT CONTACT IRRITATES SLIGHTLY WITH REDNESS AND SWELLING.

SKIN: A SINGLE RELATIVELY SHORT EXPOSURE CAUSES NO KNOWN ADVERSE EFFECT. SEVERAL REPEATED PROLONGED EXPOSURES (24 TO 48 HOURS) MAY IRRITATE.

INHALATION: NO IRRITATION TO EYES AND RESPIRATORY PASSAGES. NO INJURY IS LIKELY FROM RELATIVELY SHORT EXPOSURE OF LESS THAN 8 HOURS.

ORAL: SMALL AMOUNTS TRANSFERRED TO THE MOUTH BY FINGERS DURING USE, ETC. SHOULD NOT INJURE. SWALLOWING LARGE AMOUNTS MAY CAUSE DIGESTIVE DISCOMFORT.

COMMENTS: NO INJURY FROM DUSTS SHOULD OCCUR DURING REASONABLE USE. JMMENIS: NO INJURY FROM DUSIS SHOULD OCCUR DURING REASONABLE USE. IF USE CREATES RESPIRABLE PARTICLES, SOME RESPIRATORY SYSTEM INJURY MAY OCCUR. PROLONGED CRISTOBALITE/QUARTZ OVEREXPOSURE HAS CAUSED CANCER IN LAB ANIMALS BUT THERE IS ONLY LIMITED EVIDENCE OF CANCER AMONG HUMANS. PROLONGED CRISTOBALITE/QUARTZ OVEREXPOSURE MAY CAUSE SILICOSIS. THIS PRODUCT, AS WITH ANY CHEMICAL, MAY ENHANCE ALLERGIC CONDITIONS ON CERTAI PEOPLE. WE DO NOT KNOW OF ANY MEDICAL CONDITIONS THAT MIGHT BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

SECTION IV - EMERGENCY AND FIRST AID PROCEDURES

EYES: IMMEDIATELY FLUSH WITH WATER.

SKIN: WIPE OFF AND FLUSH WITH WATER.

INHALATION: NO FIRST AID SHOULD BE NEEDED.

ORAL: NO FIRST AID SHOULD BE NEEDED.

COMMENT: NONE

SECTION V - FIRE AND EXPLOSION DATA

FLASH POINT (METHOD USED): CLOSED CUP ABOVE 212F/100C

AUTOIGNITION: NOT DETERMINED

FLAMMABILITY LIMITS IN AIR : UPPER: N.D. LOWER: N.D.

EXTINGUISHING MEDIA: WATER WATER FOG X CO2 X DRY CHEMICAL X FOAM X OTHER

SPECIAL FIRE FIGHTING PROCEDURES: SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING SHOULD BE WORN IN FIGHTING FIRES INVOLVING CHEMICALS

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE.

COMMENTS: N.D. - NOT DETERMINED

SECTION VI - PHYSICAL DATA

BOILING POINT(@ 760 MM HG): NOT APPLICABLE
SPECIFIC GRAVITY (AT 77 DEG F/25 DEG C): 1.14
MELTING POINT: NOT APPLICABLE
VAPOR PRESSURE (AT 77 DEG F/25 DEG C): NOT APPLICABLE
VAPOR DENSITY (AIR = 1 AT 77 DEG F/25 DEG C): NOT APPLICABLE

PERCENT VOLATILE BY WEIGHT (%): LESS THAN 5
EVAPORATION RATE (ETHER = 1): NOT APPLICABLE
SOLUBILITY IN WATER(%): LESS THAN 0.1
ODOR, APPEARANCE, COLOR: VERY LITTLE ODOR, VISCOUS LIQUID, WHITE.

NOTE: THE ABOVE INFORMATION IS NOT INTENDED FOR USE IN PREPARING PRODUCT SPECIFICATIONS. CONTACT DOW CORNING BEFORE WRITING SPECIFICATIONS

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SECTION VII - REACTIVITY DATA

STABILITY: STABLE

INCOMPATABILITY(MATERIAL TO AVOID): OXIDIZING MATERIAL CAN CAUSE A REACTION.

CONDITIONS TO AVOID: NOT APPLICABLE

HAZARDOUS DECOMPOSITION PRODUCTS: ALUMINUM OXIDES, SILICON DIOXIDE, CARBON DIOXIDE AND TRACES OF INCOMPLETELY BURNED CARBON PRODUCTS.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: NOT APPLICABLE

COMMENTS: NONE

SECTION VIII - SPILL, LEAK, MAINTENANCE/REPAIR AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: REMOVE PRODUCT AND USE ABSORBENT MATERIAL TO TAKE CARE OF ANY OIL-LIKE RESIDUES.

PROTECTIVE EQUIPMENT:

EYES: USE PROPER PROTECTION -- SAFETY GLASSES, AS A MINIMUM.

SKIN: WASHING AT MEALTIME AND END OF SHIFT IS ADEQUATE.

INHALATION: USE RESPIRATORY PROTECTION UNLESS LOCAL EXHAUST VENTILATION IS ADEQUATE OR AIR SAMPLING DATA SHOW EXPOSURES ARE WITHIN TLV AND PEL GUIDELINES.

WASTE DISPOSAL METHOD: DOW CORNING SUGGESTS THAT ALL LOCAL, STATE AND FEDERAL REGULATIONS CONCERNING HEALTH AND POLLUTION BE REVIEWED TO DETERMINE APPROVED DISPOSAL PROCEDURES. CONTACT DOW CORNING IF THERE ARE ANY DISPOSAL QUESTIONS.

D.O.T. (49CFR 171.8)/E.P.A. (40CFR 117) SPILL REPORTING INFORMATION
HAZARDOUS SUBSTANCE: NONE REPORTABLE QUANTITY: NOT APPLICABLE
CONCENTRATION OF HAZARDOUS SUBSTANCE: NOT APPLICABLE
REPORTABLE QUANTITY OF PRODUCT: NOT APPLICABLE

COMMENTS: PRODUCT CONTAINS NO INGREDIENT SUBJECT TO D.O.T. OR E.P.A. CERCLA/ SARA ENVIRONMENTAL RELEASE REPORTING REGULATIONS. SEE SEC. XI FOR ADDITIONAL SARA COMPLIANCE INFORMATION.

SECTION IX - ROUTINE HANDLING PRECAUTIONS

PROTECTIVE EQUIPMENT:
EYES: USE PROPER PROTECTION -- SAFETY GLASSES, AS A MINIMUM.

SKIN *: WASHING AT MEALTIME AND END OF SHIFT IS ADEQUATE.

INHALATION: USE RESPIRATORY PROTECTION UNLESS LOCAL EXHAUST VENTILATION IS ADEQUATE OR AIR SAMPLING DATA SHOW EXPOSURES ARE WITHIN TLY AND PEL GUIDELINES.

VENTILATION:

LOCAL EXHAUST: MAY BE NEEDED. MECHANICAL (GENERAL): RECOMMENDED.

SUITABLE RESPIRATOR: ORGANIC VAPOR TYPE.

THESE PRECAUTIONS ARE FOR ROOM TEMPERATURE HANDLING, USE AT ELEVATED TEMPERATURES, OR AEROSOL/SPRAY APPLICATIONS, MAY REQUIRE ADDED PRECAUTIONS. * GOOD PRACTICE REQUIRES THAT GROSS AMOUNT OF ANY CHEMICAL BE REMOVED FROM THE SKIN AS SOON AS PRACTICAL, ESPECIALLY BEFORE EATING OR SMOKING. COMMENTS: AVOID BREATHING VAPOR AND EYE CONTACT. USE ONLY WITH ADEQUATE VENTILATION.

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SECTION X - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: STORE BELOW 90 F/32 C. USE REASONABLE CARE AND CAUTION.

OTHER PRECAUTIONS: N-PROPYL ALCOHOL FORMS DURING USE. OBSERVE EXPOSURE LIMITS IN SEC. II COMMENTS OR USE RESPIRATORY PROTECTION.

COMMENTS: CURED FILMS OR ARTICLES MADE FROM THIS PRODUCT MAY FORM TRACES OF FORMALDEHYDE (CARCINOGEN) IF HEATED IN AIR ABOVE 300F/149C. PROVIDE VENTILATION TO CONTROL VAPOR EXPOSURE WITHIN INHALATION GUIDELINES WHEN HANDLING AT ELEVATED TEMPERATURE. REVIEW THE OSHA FORMALDEHYDE REGULATIONS FOR DETAILED INFORMATION ON SAFE HANDLING REQUIREMENTS.

SECTION XI - COMMENTS

ADDITIONAL SARA REGULATORY COMPLIANCE INFORMATION

SEC. 312 HAZARD CLASS: IMMEDIATE AND DELAYED.
SEC. 313 NOTIFICATION: NOT APPLICABLE - EITHER NONE PRESENT OR NONE PRESENT IN REGULATED QUANTITIES.

SECTION XII - COMMENTS

SUPPLEMENTAL STATE COMPLIANCE INFORMATION PENNSYLVANIA: 15% 14464461 CRISTOBALITE

14808607 OUARTZ 1%

682019 TETRAPROPYL ORTHOSILICATE

21645549 ALUMINA HYDRATE

68855549 DIATOMACEOUS EARTH, FLUX CALCINED

POLYDIMETHYLSILOXANE, HYDROXY-TERMINATED 70131678

MASSACHUSETTS: 15% 14464461 CRISTOBALITE

1% 14808607 OUARTZ

SILICA, CRISTOBALITE; #1657 NEW JERSEY: 15% 14464461

1% 14808607 SILICA, QUARTZ; #1660
PREVAILING COMPONENTS SAME AS PENNSYLVANIA ABOVE.

THESE DATA ARE OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EITHER EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGÍENE AND SAFE HANDLING PROCEDÚRES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.

PREPARED BY: JACK L. SHENEBERGER

LAST REVISION DATE: SEPTEMBER 20, 1990 PREVIOUS REVISION DATE: OCTOBER 4, 1985

DATE: SEPTEMBER 21, 1990

(R) INDICATES REGISTERED OR TRADEMARK OF THE DOW CORNING CORPORATION.