

MATL NAME: DOW CORNING(R) 3-5000 SILICONE CONST. COAT.-GRAY */ or white*
EMERGENCY TELEPHONE NO. (517) 496-5900

SECTION I - GENERAL INFORMATION

MANUFACTURER'S NAME: DOW CORNING CORPORATION
ADDRESS: SOUTH SAGINAW ROAD, MIDLAND MI 48686

PROPER SHIPPING NAME(49CFR 172.101): COMBUSTIBLE LIQUID NOS
D.O.T. HAZARD NAME(49CFR 172.101): NAPHTHA
D.O.T. ID NO(49CFR 172.101): NA 1993
D.O.T. HAZARD CLASS(49CFR 172.101): COMBUSTIBLE LIQUID (EXEMPT IN PACKAGES
OF 110 GALLONS OR LESS).
RCRA HAZARD CLASS(40CFR 261)(IF DISCARDED): IGNITABLE (D001)
E.P.A. PRIORITY POLLUTANTS(40CFR 122.53): NONE
NFPA = NATIONAL FIRE PROTECTION ASSOCIATION - 704
HEALTH (NFPA): 2 FLAMMABILITY (NFPA): 2 REACTIVITY (NFPA): 0
CAS NO: MIXTURE DOW CORNING WARNING CODE: 20,70,75
GENERIC DESCRIPTION: SILICONE IN SOLVENT (F1,S6,I7,O2)

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

DOW CORNING(R) 3-5000 SILICONE	100	TLV (UNITS):	20 PPM
CONST. COAT.-GRAY		TLV (UNITS):	
CONTAINS:		TLV (UNITS):	
NAPHTHA	25	TLV (UNITS):	300 PPM;
(STODDARD SOLVENT)		TLV (UNITS):	PEL 500 PPM

COMMENT: DOW CORNING(R) 3-5000 TLV IS DOW CORNING IH GUIDE BASED ON METHYL ETHYL KETONE OXIME FORMED DURING CURING ON EXPOSURE TO WATER, MOISTURE, HUMID AIR.

SECTION III - EFFECTS OF OVEREXPOSURE

EYE: MAY CAUSE TEMPORARY DISCOMFORT.

SKIN: SINGLE, PROLONGED EXPOSURE (HOURS) CAUSES NO KNOWN EFFECT. SEVERAL REPEATED, PROLONGED EXPOSURES MAY CAUSE SLIGHT IRRITATION. MAY CAUSE SENSITIZATION-SEE COMMENTS BELOW.

INHALATION: PROLONGED OVEREXP. MAY CAUSE DROWSINESS, IRRITATE RESP. SYSTEM AND CAUSE SLIGHT CHANGES IN BLOOD CHEMISTRY THAT SHOULD RAPIDLY REVERT TO NORMAL WHEN OVEREXPOSURE ENDS.

ORAL: AMOUNTS TRANSFERRED TO THE MOUTH DURING NORMAL OPERATIONS SHOULD NOT CAUSE INJURY. SWALLOWING SUBSTANTIAL AMOUNTS MAY CAUSE SOME INJURY.

COMMENTS: TOXICOLOGY STUDIES WITH LABORATORY ANIMALS INDICATE THAT REPEATED PROLONGED OVEREXPOSURE TO METHYL ETHYL KETONE OXIME CAUSES ALLERGIC SKIN SENSITIZATION IN ANIMALS.

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DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 3-5000 SILICONE CONST. COAT.-GRAY

SECTION IV - EMERGENCY AND FIRST AID PROCEDURES

EYES: FLUSH WITH WATER.

SKIN: WIPE OFF AND FLUSH WITH WATER. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS.

INHALATION: REMOVE TO FRESH AIR. GET MEDICAL ATTENTION IF ILL EFFECTS PERSIST.

ORAL: GET MEDICAL ATTENTION IF LARGE AMOUNTS SWALLOWED. DO NOT INDUCE VOMITING.

COMMENTS: IF SPONTANEOUS VOMITING OCCURS, KEEP HEAD LOWER THAN HIPS TO PREVENT ASPIRATION OF LIQUID INTO LUNGS.

SECTION V - FIRE AND EXPLOSION DATA

FLASH POINT (METHOD USED): CLOSED CUP ABOVE 100F/38C

AUTOIGNITION: NOT DETERMINED.

FLAMMABILITY LIMITS IN AIR : LOWER:1.2% UPPER:6.0%

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: VAPORS ARE HEAVIER THAN AIR AND CAN TRAVEL ALONG GROUND TO REMOTE IGNITION SOURCES.

COMMENTS: FLAMMABILITY LIMITS ARE APPROXIMATE.

SECTION VI - PHYSICAL DATA

BOILING POINT(AT 760 MM HG): NOT APPLICABLE

SPECIFIC GRAVITY (AT 77 DEG F/25 DEG C): 1.15

MELTING POINT: NOT APPLICABLE

VAPOR PRESSURE (AT 77 DEG F/25 DEG C): 15 MM

VAPOR DENSITY (AIR = 1 AT 77 DEG F/25 DEG C): 3.8

PERCENT VOLATILE BY WEIGHT (%): 25

EVAPORATION RATE (ETHER = 1): LESS THAN 1

SOLUBILITY IN WATER(%): LESS THAN 0.1%

ODOR, APPEARANCE, COLOR: SOLVENT ODOR, LIQUID, GRAY.

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

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DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 3-5000 SILICONE CONST. COAT.-GRAY

SECTION VII - REACTIVITY DATA

STABILITY: STABLE

INCOMPATIBILITY(MATERIAL TO AVOID): OXIDIZING MATERIAL CAN CAUSE A REACTION.
WATER, MOISTURE, HUMID AIR-CAUSE CURING.

CONDITIONS TO AVOID: EXPOSURE TO WATER, MOISTURE, HUMID AIR UNTIL READY TO USE.

HAZARDOUS DECOMPOSITION PRODUCTS: METAL 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: USE ABSORBENT
MATERIAL TO COLLECT AND CONTAIN FOR SALVAGE OR DISPOSAL. REMOVE ALL SOURCES
OF IGNITION AND WEAR PROPER PROTECTION EQUIPMENT.

PROTECTIVE EQUIPMENT:

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

SKIN: AVOID CONTACT BY USING IMPERVIOUS PROTECTIVE CLOTHING, RUBBER OR PLASTIC
GLOVES AS A MINIMUM, AND WASH IMMEDIATELY UPON ANY DETECTABLE CONTACT.

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: NONE

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DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 3-5000 SILICONE CONST. COAT.-GRAY

SECTION IX - ROUTINE HANDLING PRECAUTIONS

PROTECTIVE EQUIPMENT:

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

SKIN *: AVOID CONTACT BY USING IMPERVIOUS PROTECTIVE CLOTHING, RUBBER OR PLASTIC GLOVES AS A MINIMUM, AND WASH IMMEDIATELY UPON ANY DETECTABLE CONTACT.

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

VENTILATION:

LOCAL EXHAUST: RECOMMENDED

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 VAPORS AND EYE AND SKIN CONTACT. USE ONLY WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY.

SECTION X - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: KEEP CONTAINER CLOSED AND AWAY FROM HEAT, SPARKS, AND OPEN FLAME.

OTHER PRECAUTIONS: THIS PRODUCT LIBERATES METHYL ETHYL KETOXIME (MEKO) WHEN EXPOSED TO WATER OR HUMID AIR. PROVIDE ADEQUATE VENTILATION DURING PROCESSING TO PREVENT MEKO VAPORS ABOVE 20 PPM (DOW CORNING EXPOSURE GUIDELINE) OR USE RESPIRATORY PROTECTION.

COMMENTS: STATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT.

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 HYGIENE AND SAFE HANDLING PROCEDURES 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. SHENEGER

LAST REVISION DATE: DECEMBER 19, 1986

PREVIOUS REVISION DATE: OCTOBER 07, 1985

DATE: MARCH 17, 1988

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

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*Similar,
for MSDS
Book*

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MR. KEITH STEVENS

DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 5700 ANTIMICROBIAL AGENT
EMERGENCY TELEPHONE NO. (517) 496-5900

SECTION I - GENERAL INFORMATION

MANUFACTURER'S NAME: DOW CORNING CORPORATION
ADDRESS: SOUTH SAGINAW ROAD, MIDLAND MI 48686

PROPER SHIPPING NAME(49CFR 172.101): FLAMMABLE LIQUID NOS
D.O.T. HAZARD NAME(49CFR 172.101): METHANOL
D.O.T. ID NO(49CFR 172.101): UN 1993
D.O.T. HAZARD CLASS(49CFR 172.101): FLAMMABLE LIQUID
RCRA HAZARD CLASS(40CFR 261)(IF DISCARDED): IGNITABLE (D001), F003
E.P.A. PRIORITY POLLUTANTS(40CFR 122.53): NONE
NFPA = NATIONAL FIRE PROTECTION ASSOCIATION - 704
HEALTH (NFPA): 1 FLAMMABILITY (NFPA): 3 REACTIVITY (NFPA): 0
CAS NO: MIXTURE DOW CORNING WARNING CODE: NOT USED
GENERIC DESCRIPTION: ORGANOSILANE IN SOLVENT

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

CAS NO.	INGREDIENT	WT. %	EXPOSURE LIMITS
000067561	METHANOL (METHYL ALCOHOL)	50	OSHA PEL: TWA 200 PPM ACGIH TLV-SKIN: TWA 200 PPM, STEL 250 PPM
002530872	(3-CHLOROPROPYL)TRI- METHOXY-SILANE	8	OBSERVE ABOVE LIMITS FOR METHANOL, FORMED ON EXPOSURE TO WATER OR HUMID AIR.
027668526	3-(TRIMETHOXY-SILYL)- PROPYLDIMETHYLOCTADECYL AMMONIUM CHLORIDE	42	OBSERVE ABOVE LIMITS FOR METHANOL, FORMED ON EXPOSURE TO WATER OR HUMID AIR.

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**DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET**

MATL NAME: DOW CORNING(R) 5700 ANTIMICROBIAL AGENT

SECTION III - EFFECTS OF OVEREXPOSURE

EYE: DIRECT CONTACT BURNS EYES WITH POSSIBLE PERMANENT INJURY, EVEN BLINDNESS. MIST MAY IRRITATE AND CAUSE PAIN AND WATERING.

SKIN: A SINGLE RELATIVELY SHORT EXPOSURE (LESS THAN 24 HOURS) IRRITATES. REPEATED PROLONGED CONTACT (24 TO 48 HOURS) IRRITATES SERIOUSLY, MAY BURN MILDLY.

INHALATION: MIST MAY IRRITATE NOSE AND THROAT. MAY CAUSE BLINDNESS, EVEN DEATH.

ORAL: SWALLOWING SMALL AMOUNTS MAY CAUSE BLINDNESS, EVEN DEATH.

COMMENTS: NO KNOWN ADVERSE CHRONIC HEALTH EFFECTS, BUT UNNECESSARY EXPOSURE TO ANY CHEMICAL SHOULD BE AVOIDED. THIS PRODUCT, AS WITH ANY CHEMICAL, MAY ENHANCE ALLERGIC CONDITIONS ON CERTAIN 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 FOR 15 MINUTES. GET IMMEDIATE MEDICAL ATTENTION.

SKIN: WIPE OFF AND FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS.

INHALATION: REMOVE TO FRESH AIR. GET IMMEDIATE MEDICAL ATTENTION. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GIVE OXYGEN IF BREATHING IS DIFFICULT.

ORAL: GET IMMEDIATE MEDICAL ATTENTION. IF CONSCIOUS, INDUCE VOMITING. LIE DOWN, KEEP WARM, AND COVER EYES TO EXCLUDE LIGHT.

COMMENT: TREAT SAME AS FOR METHANOL POISONING.

SECTION V - FIRE AND EXPLOSION DATA

**FLASH POINT (METHOD USED): CLOSED CUP, 52F/11C
AUTOIGNITION: ABOVE 800 F - BASED ON METHANOL.
FLAMMABILITY LIMITS IN AIR : LOWER:6% UPPER: 36%**

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: VAPORS ARE HEAVIER THAN AIR AND CAN TRAVEL ALONG GROUND TO REMOTE IGNITION SOURCES. HAZARDOUS CHLORINE COMPOUNDS FORM.

COMMENTS: FLAMMABILITY LIMITS ARE ESTIMATES BASED ON METHANOL.

SECTION VI - PHYSICAL DATA

**BOILING POINT(@ 760 MM HG): 147F/64C (METHANOL)
SPECIFIC GRAVITY (AT 77 DEG F/25 DEG C): 0.88
MELTING POINT: NOT APPLICABLE
VAPOR PRESSURE (AT 77 DEG F/25 DEG C): 100 MM
VAPOR DENSITY (AIR = 1 AT 77 DEG F/25 DEG C): ABOVE ONE
PERCENT VOLATILE BY WEIGHT (%): 58
EVAPORATION RATE (ETHER = 1): LESS THAN ONE
SOLUBILITY IN WATER(%): GREATER THAN 90
ODOR, APPEARANCE, COLOR: SOLVENT ODOR, LIQUID, VERY LITTLE COLOR.**

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

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**DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET**

MATL NAME: DOW CORNING(R) 5700 ANTIMICROBIAL AGENT

SECTION VII - REACTIVITY DATA

STABILITY: STABLE

**INCOMPATIBILITY(MATERIAL TO AVOID): OXIDIZING MATERIAL CAN CAUSE A REACTION.
WATER OR HUMID AIR.**

CONDITIONS TO AVOID: EXPOSURE TO WATER OR AIR UNTIL READY TO USE.

**HAZARDOUS DECOMPOSITION PRODUCTS: NITROGEN OXIDES, CHLORINE COMPOUNDS, 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: USE ABSORBENT
MATERIAL TO COLLECT AND CONTAIN FOR SALVAGE OR DISPOSAL. REMOVE ALL SOURCES
OF IGNITION AND WEAR PROPER PROTECTION EQUIPMENT.**

PROTECTIVE EQUIPMENT:

EYES: USE CHEMICAL WORKER GOGGLES.

**SKIN: WASHING AT MEALTIME AND END OF SHIFT IS ADEQUATE. REMOVE CONTAMINATED
CLOTHING AND SHOES AS SOON AS PRACTICAL AND CLEAN THOROUGHLY BEFORE REUSE.
RUBBER OR PLASTIC GLOVES ARE RECOMMENDED.**

**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: METHANOL REPORTABLE QUANTITY: 5,000 LBS.

CONCENTRATION OF HAZARDOUS SUBSTANCE: 50%

REPORTABLE QUANTITY OF PRODUCT: 10,000 LBS.

**COMMENTS: RELEASES OF REPORTABLE QUANTITIES OF THE ABOVE HAZARDOUS SUBSTANCES
BEYOND FACILITY BOUNDARIES MAY BE REPORTABLE TO STATE OR LOCAL EMERGENCY
RESPONSE AUTHORITIES UNDER TITLE III OF "SARA", THE SUPERFUND AMENDMENTS AND
REAUTHORIZATION ACT OF 1986, SECTION 304. SEE 40CFR, PART 300, SUBPART
I-EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW. METHANOL, CAS NO. 67-56-1,
IS A TOXIC CHEMICAL ALSO REPORTABLE UNDER SECTION 313 AND 40CFR PART 372.
THIS PRODUCT IS TOXIC TO FISH. DO NOT DISCHARGE INTO LAKES, STREAMS, PONDS, OR
PUBLIC WATERS UNLESS IN ACCORDANCE WITH NPDES PERMIT. CONTACT REGIONAL EPA
OFFICE FOR GUIDANCE.**

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DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 5700 ANTIMICROBIAL AGENT

SECTION IX - ROUTINE HANDLING PRECAUTIONS

PROTECTIVE EQUIPMENT:
EYES: USE CHEMICAL WORKER GOGGLES.

SKIN *: WASHING AT MEALTIME AND END OF SHIFT IS ADEQUATE. REMOVE CONTAMINATED CLOTHING AND SHOES AS SOON AS PRACTICAL AND CLEAN THOROUGHLY BEFORE REUSE. RUBBER OR PLASTIC GLOVES ARE RECOMMENDED.

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

VENTILATION:
LOCAL EXHAUST: RECOMMENDED
MECHANICAL (GENERAL): RECOMMENDED

SUITABLE RESPIRATOR: AIR-SUPPLIED OR SELF-CONTAINED.

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: DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. USE ONLY WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY.

SECTION X - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: KEEP CONTAINER CLOSED AND AWAY FROM WATER, HEAT, SPARKS, AND OPEN FLAME. STORE BELOW 100F.

OTHER PRECAUTIONS: STATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT. COMMENTS: IRRITATING PROPERTIES OF METHANOL ARE INADEQUATE TO PREVENT OVER-EXPOSURE.

SECTION XI - COMMENTS

REGULATORY COMPLIANCE: PRODUCT IS AN EPA REGISTERED PESTICIDE, AND ITS USE IS STRICTLY REGULATED BY THE FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT, EPA REGULATIONS IN 40 CFR PARTS 150-180, AND LAWS AND REGULATIONS OF INDIVIDUAL STATES. YOU, THE USER, MUST BE CERTAIN THAT YOUR USE OF THIS PRODUCT IS IN FULL COMPLIANCE WITH THESE AND ANY OTHER APPROPRIATE GOVERNMENTAL REGULATIONS.

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 HYGIENE AND SAFE HANDLING PROCEDURES 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: DECEMBER 12, 1988
PREVIOUS REVISION DATE: SEPTEMBER 25, 1985
DATE: DECEMBER 23, 1988

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

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DOW CHEMICAL CO.
ATTN: VERN AMAR
P.O. BOX 150
BLDG. 2307
PLAQUEMINE, LA 70764

DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 36 EMULSION

EMERGENCY TELEPHONE NO. (517) 496-5900

SECTION I - GENERAL INFORMATION

MANUFACTURERS NAME: DOW CORNING CORPORATION
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: 76
GENERIC DESCRIPTION: SILICONE EMULSION

SECTION II - HAZARDOUS INGREDIENT

NONE PRESENT	%	TLV (UNITS):
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ONLY THOSE INGREDIENTS LISTED IN THIS SECTION HAVE BEEN DETERMINED TO BE HAZARDOUS AS DEFINED IN 29 CFR 1910.1200. AN INGREDIENT MARKED WITH AN ASTERISK(*) IS ALSO LISTED IN 29 CFR 1910.1200(D) #4 AS KNOWN OR SUSPECTED CARCINOGEN.

COMMENT: NONE

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DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 36 EMULSION

SECTION III - EFFECTS OF OVEREXPOSURE

EYES: MAY CAUSE TEMPORARY DISCOMFORT.

SKIN: SINGLE, PROLONGED EXPOSURE (HOURS) CAUSES NO KNOWN EFFECTS. SEVERAL REPEATED, PROLONGED EXPOSURES MAY CAUSE SLIGHT IRRITATION.

INHALATION: NO IRRITATION TO NOSE OR THROAT EXPECTED. NO INJURY IS LIKELY FROM RELATIVELY SHORT EXPOSURES.

ORAL: AMOUNTS TRANSFERRED TO THE MOUTH BY FINGERS, ETC., DURING NORMAL OPERATIONS SHOULD NOT CAUSE INJURY.

COMMENT: NO KNOWN ADVERSE CHRONIC HEALTH EFFECTS, BUT UNNECESSARY EXPOSURE TO ANY CHEMICAL SHOULD BE AVOIDED. THIS PRODUCT, AS WITH ANY CHEMICAL, MAY ENHANCE ALLERGIC CONDITIONS ON CERTAIN 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: FLUSH WITH WATER.

SKIN: WIPE OFF AND FLUSH WITH WATER.

INHALATION: NO PROBLEM.

ORAL: NO PROBLEM.

COMMENT: NONE.

SECTION V - FIRE AND EXPLOSION DATA

FLASH POINT (METHOD USED): OPEN CUP/CLOSED CUP - NONE

AUTOIGNITION: NOT DETERMINED

FLAMMABILITY LIMITS IN AIR : LOWER:N.D. UPPER: 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 KNOWN TO DOW CORNING

COMMENTS: N.D. - NOT DETERMINED.

SECTION VI - PHYSICAL DATA

BOILING POINT(@ 760 MM HG): 212°F/100°C

SPECIFIC GRAVITY (AT 77 DEG F/25 DEG C): 1.0

MELTING POINT: NOT APPLICABLE

VAPOR PRESSURE (AT 77 DEG F/25 DEG C): 30 MM

VAPOR DENSITY (AIR = 1 AT 77 DEG F/25 DEG C): NOT APPLICABLE

PERCENT VOLATILE BY VOLUME (%): ABOVE 40%

EVAPORATION RATE (ETHER = 1): LESS THAN 1

SOLUBILITY IN WATER(%): GREATER THAN 90%

ODOR, APPEARANCE, COLOR: VERY LITTLE ODOR, LIQUID, WHITE COLOR

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

DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 36 EMULSION

SECTION VII - REACTIVITY DATA

STABILITY: STABLE

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

CONDITIONS TO AVOID: NOT APPLICABLE

HAZARDOUS DECOMPOSITION PRODUCTS: 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 AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: USE ABSORBENT MATERIAL TO COLLECT AND CONTAIN FOR SALVAGE OR DISPOSAL.

PROTECTIVE EQUIPMENT:

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

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

INHALATION: NO RESPIRATORY PROTECTION REQUIRED.

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: NONE

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: NO RESPIRATORY PROTECTION REQUIRED.

VENTILATION:

LOCAL EXHAUST: NONE

MECHANICAL (GENERAL): RECOMMENDED

SUITABLE RESPIRATOR: NO RESPIRATORY PROTECTION REQUIRED.

THESE PRECAUTIONS ARE FOR ROOM TEMPERATURE HANDLING, USE AT ELEVATED TEMPERATURE 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: NONE

SECTION X - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: KEEP FROM FREEZING. USE REASONABLE CARE AND CAUTION.

OTHER PRECAUTIONS: NONE KNOWN TO DOW CORNING.

COMMENTS: NONE.

DOW CORNING CORPORATION
MATERIAL SAFETY DATA SHEET

MATL NAME: DOW CORNING(R) 36 EMULSION

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 HYGIENE AND SAFE HANDLING PROCEDURES 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. SHENEGER

LAST REVISION DATE: OCTOBER 01, 1985

PREVIOUS REVISION DATE: DECEMBER 02, 1980

DATE: JULY 31, 1987

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



Dow U.S.A.

Material Safety Data Sheet

The Dow Chemical Company
Midland, Michigan 48674

Dow Chemical U.S.A.* Midland, MI 48674 Emergency Phone: 517-636-4400

Product code: 21100

Page: 1

Product Name: DIETHANOLAMINE - COMMERCIAL GRADE

Effective Date: 12/20/90 Date Printed: 11/04/91

MSDS:000069

1. INGREDIENTS: (% w/w, unless otherwise noted)

Diethanolamine	CAS# 000111-42-2	99.0%
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This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

2. PHYSICAL DATA:

BOILING POINT: 514F, 268C
VAP PRESS: Low
VAP DENSITY: Not determined.
SOL. IN WATER: Completely miscible.
SP. GRAVITY: 1.09 @ 30/4C
FREEZING POINT: 82F, 28C.
APPEARANCE: Colorless.
ODOR: Slight ammoniacal odor.

3. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: 325F, 163C
METHOD USED: Setaflash.

FLAMMABLE LIMITS
LFL: Not determined
UFL: Not determined

EXTINGUISHING MEDIA: Water fog, alcohol foam, CO2, dry chemical.

FIRE & EXPLOSION HAZARDS: Not available.

FIRE-FIGHTING EQUIPMENT: Wear self-contained, positive-pressure breathing apparatus.

4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Stable under normal storage conditions.

(Continued on page 2, over)

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Product code: 21100

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Product Name: DIETHANOLAMINE - COMMERCIAL GRADE

Effective Date: 12/20/90 Date Printed: 11/04/91

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4. REACTIVITY DATA: (CONTINUED)

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Strong oxidizers, strong acids. Product may potentially react with various halogenated organic solvents, resulting in temperature and/or pressure increases.

HAZARDOUS DECOMPOSITION PRODUCTS: Possible nitrogen oxides. This product should not be heated above 60C in the presence of aluminum due to excessive corrosion and potential chemical reaction releasing flammable hydrogen gas.

HAZARDOUS POLYMERIZATION: Will not occur.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS/LEAKS: Soak up with absorbent material or sand. Scoop into waste containers.

DISPOSAL METHOD: Burn in approved incinerator. Follow all local, state, and federal requirements for disposal.

6. HEALTH HAZARD DATA:

EYE: May cause severe irritation with corneal injury.

SKIN CONTACT: Prolonged or repeated exposure may cause skin irritation, even a burn. DOT classification: non-corrosive.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD50 for skin absorption in rabbits is approximately 12,000 mg/kg.

INGESTION: Single dose oral toxicity is low. The oral LD50 for rats is between 710-1820 mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

INHALATION: At room temperature, exposures to vapors are unlikely due to physical properties; higher temperatures may generate vapor levels sufficient to cause irritation and other effects. Excessive exposure may cause liver and kidney injury.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Results from repeated

(Continued on page 3)

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6. HEALTH HAZARD DATA: (CONTINUED)

exposure tests in laboratory animals include anemia (rats) and effects on kidney (rats and mice) and liver (mice). Heart and nervous system effects were also observed in these animals given exaggerated doses. Changes in other organs, causes of which are non-specific, were judged secondary to the poor health of the animals due to the extremely high doses given.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Results of in vitro (test tube) mutagenicity tests have been negative.

7. FIRST AID:

EYES: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

SKIN: Wash off in flowing water or shower.

INGESTION: Induce vomiting if large amounts are ingested. Consult medical personnel.

INHALATION: Remove to fresh air if effects occur. Consult medical personnel.

NOTE TO PHYSICIAN: If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient. Repeated excessive exposure may aggravate preexisting liver and kidney disease.

8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE(S): OSHA PEL and ACGIH TLV are 3 ppm.

VENTILATION: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator.

SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron, or full-body suit will depend on operation.

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Product Name: DIETHANOLAMINE - COMMERCIAL GRADE

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8. HANDLING PRECAUTIONS: (CONTINUED)

EYE PROTECTION: Use chemical goggles.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Prevent eye contact. Avoid skin contact. Avoid breathing vapors if generated. Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed.

MSDS STATUS: Revised sections 6, 8, 9 and Regulatory Information section.

For information regarding state/provincial and federal regulations see The Regulatory Information Section.

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Dow Chemical U.S.A.* Midland, MI 48674 Emergency Phone: 517-636-4400

Product code: 21100

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Product Name: DIETHANOLAMINE - COMMERCIAL GRADE

Effective Date: 12/20/90 Date Printed: 11/04/91

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REGULATORY INFORMATION: (Not meant to be all-inclusive--selected regulations represented.)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See MSD Sheet for health and safety information.

U.S. REGULATIONS

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
DIETHANOLAMINE	000111-42-2	99 %

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard

CANADIAN REGULATIONS

The Workplace Hazardous Materials Information System (W.H.M.I.S.) Classification for this product is:

D2B

The Transportation of Dangerous Goods Act (T.D.G.A.) classification for this product is:

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REGULATORY INFORMATION (CONTINUED)

Not regulated.

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For Further Information.

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