DOW CORNING

DOW CORNING CORPORATION
Material Safety Data Sheet

Version: 2.1
Revision Date: 2005/09/23

DOW CORNING(R) 236 DISPERSION

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Dow Corning Corporation
South Saginaw Road
Midland, Michigan 48686

24 Hour Emergency Telephone: (989) 496-5900
Customer Service: (989) 496-6000
Product Disposal Information: (989) 496-6315
CHEMTREC: (800) 424-9300

MSDS No.: 01997645
Revision Date: 2005/09/23

Generic Description: Silicone in solvent
Physical Form: Liquid
Color: White
Odor: Not available

NFPA Profile: Health 2 Flammability 3 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

2. OSHA HAZARDOUS COMPONENTS

CAS Number	Wt %	Component Name
13463-67-7	30.0 - 60.0	Titanium dioxide
64742-89-8	30.0 - 60.0	Light aliphatic petroleum solvent naphtha
2224-33-1	3.0 - 7.0	Vinyltri (methylethylketoxime) silane
96-29-7	<=3.0	Methylethylketoxime
1330-20-7	1.0 - 5.0	Xylene
7631-86-9	1.0 - 5.0	Silica, amorphous
21645-51-2	1.0 - 5.0	Alumina hydrate
100-41-4	<1.0	Ethylbenzene

The above components are hazardous as defined in 29 CFR 1910.1200.

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Acute Effects

Eye: Direct contact may cause severe irritation.

Skin: May cause moderate irritation.

Inhalation:	Vapor may irritate nose and throat. Overexposure by inhalation may cause drowsiness, dizziness, confusion or loss of coordination.
Oral:	Aspiration of liquid while vomiting may injure lungs seriously.

Prolonged/Repeated Exposure Effects

Skin:	Repeated skin contact may cause allergic skin reaction. Repeated or prolonged contact may cause defatting and drying of skin which may result in skin irritation and dermatitis. Overexposure by skin absorption may injure the following organ(s): Blood.
Inhalation**:**	Overexposure by inhalation may injure the following organ(s): Blood. Lungs. Liver. Nervous system.
Oral:	Repeated ingestion or swallowing large amounts may injure internally.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

4. FIRST AID MEASURES

Eye:	Immediately flush with water for 15 minutes. Get medical attention.
Skin:	Remove from skin and immediately flush with water for 15 minutes. Get medical attention if irritation or ill effects develop or persist.
Inhalation:	Remove to fresh air. Get medical attention if ill effects persist.
Oral:	Get immediate medical attention. Only induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person.
Comments:	Treat according to person's condition and specifics of exposure.

5. FIRE FIGHTING MEASURES

Flash Point:	54 °F / 12.2 °C (Pensky-Martens Closed Cup)
Autoignition Temperature:	Not determined.
Flammability Limits in Air:	Not determined.

Extinguishing Media:	On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO2), dry chemical or water spray. Water can be used to cool fire exposed containers.
Fire Fighting Measures:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire Hazards:	Vapors are heavier than air and may travel to a source of ignition and flash back. Static electricity will accumulate and may ignite vapors. Prevent a possible fire hazard by bonding and grounding or inert gas purge.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde. Metal oxides. Nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

Containment/Clean up:	Remove possible ignition sources. Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbant. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

Note: See section 8 for Personal Protective Equipment for Spills. Call (989) 496-5900, if additional information is required.

7. HANDLING AND STORAGE

Use with adequate ventilation. Product evolves methyl ethyl ketoxime (MEKO) when exposed to water or humid air. Provide ventilation during use to control methyl ethyl ketoxime (MEKO) within exposure guidelines or use respiratory protection. Traces of benzene (carcinogen) may form if heated in air above 300 F (149 C). Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures. Review the OSHA benzene regulation for detailed information on safe handling requirements. Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally.

Static electricity will accumulate and may ignite vapors. Prevent a possible fire hazard by bonding and grounding or inert gas purge. Keep container closed and away from heat, sparks, and flame. Keep container closed and store away from water or moisture.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

CAS Number	Component Name	Exposure Limits
13463-67-7	Titanium dioxide	Observe titanium dioxide limits. OSHA PEL (final rule): TWA 15 mg/m3 and ACGIH TLV: TWA 10 mg/m3.
64742-89-8	Light aliphatic petroleum solvent naphtha	Observe petroleum distillates limits. OSHA PEL (final rule): TWA 400 ppm.
2224-33-1	Vinyltri (methylethylketoxime) silane	See ethyl methyl ketoxime comments.
96-29-7	Methylethylketoxime	Vendor guide: TWA 3 ppm, STEL 10 ppm. AIHA WEEL: TWA 10 ppm.
1330-20-7	Xylene	Observe xylene limits. OSHA PEL (final rule) and ACGIH TLV: TWA 100 ppm, STEL 150 ppm.
7631-86-9	Silica, amorphous	OSHA PEL (final rule): TWA 80mg/m3/%SiO2. NIOSH REL: TWA 6mg/m3.
21645-51-2	Alumina hydrate	Observe aluminum oxide limits. OSHA PEL (final rule): TWA 15 mg/m3 total dust, 5 mg/m3 respirable fraction. ACGIH TWA 10 mg/m3.
100-41-4	Ethylbenzene	OSHA PEL (final rule): TWA 100 ppm, 435 mg/m3. ACGIH TLV: TWA 100 ppm, STEL 125 ppm.

Ethyl methyl ketoxime is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within the following exposure guidelines: Vendor guide TWA: 3 ppm, STEL: 10 ppm; AIHA WEEL TWA: 10 ppm.

Engineering Controls

Local Ventilation: Recommended.
General Ventilation: Recommended.

Personal Protective Equipment for Routine Handling

Eyes: Use chemical worker's goggles.

Skin: Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.

Suitable Gloves: Silver Shield(R). 4H(R).

Inhalation:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. IH personnel can assist in judging the adequacy of existing engineering controls.
Suitable Respirator:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

Personal Protective Equipment for Spills

Eyes:	Use full face respirator.
Skin:	Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.
Inhalation/Suitable Respirator:	Respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Precautionary Measures:	Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally. Use reasonable care.
Comments:	Product evolves methyl ethyl ketoxime (MEKO) when exposed to water or humid air. Provide ventilation during use to control methyl ethyl ketoxime (MEKO) within exposure guidelines or use respiratory protection. Traces of benzene (carcinogen) may form if heated in air above 300 F (149 C). Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures. Review the OSHA benzene regulation for detailed information on safe handling requirements. When heated to temperatures above 150 degrees C in the presence of air, product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant to the eyes, nose, throat, skin, and digestive system. Safe handling conditions may be maintained by keeping vapor concentrations within the OSHA Permissible Exposure Limit for formaldehyde.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact the Dow Corning customer service group.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Liquid
Color:	White
Odor:	Not available

Specific Gravity @ 25°C:	1.08
Viscosity:	675 cSt
Freezing/Melting Point:	Not determined.
Boiling Point:	> 100 °C
Vapor Pressure @ 25°C:	Not determined.
Vapor Density:	Not determined.
Solubility in Water:	Not determined.
pH:	Not determined.
Volatile Content:	Not determined.

Note: The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable.
Hazardous Polymerization:	Hazardous polymerization will not occur.
Conditions to Avoid:	None.
Materials to Avoid:	Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous vapors to form as described in Section 8.

11. TOXICOLOGICAL INFORMATION

Component Toxicology Information

Contains Methyl Ethyl Ketoxime (MEKO). Male rodents exposed to MEKO vapor throughout their lifetime developed liver cancer. Additional testing is planned by the MEKO supplier to determine any relevance to humans. Until more data is known, exposure levels should be maintained as low as achievable.

Methyl Ethyl Ketoxime (MEKO) is formed upon contact with water or humid air. Male rodents exposed to MEKO vapor throughout their lifetime developed liver cancer. Additional testing is planned by the MEKO supplier to determine any relevance to humans. Until more data is known, exposure levels should be maintained as low as achievable.

Special Hazard Information on Components

Carcinogens

CAS Number	Wt %	Component Name	
100-41-4	<1.0	Ethylbenzene	IARC Group 2B - Possibly Carcinogenic to Humans.

Sensitizers

CAS Number	Wt %	Component Name

2224-33-1	3.0 - 7.0	Vinyltri (methylethylketoxime) silane	Possible skin sensitizer.
96-29-7	<=3.0	Methylethylketoxime	Possible skin sensitizer.

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Complete information is not yet available.

Environmental Effects

Complete information is not yet available.

Fate and Effects in Waste Water Treatment Plants

Complete information is not yet available.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

13. DISPOSAL CONSIDERATIONS

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste? Yes

Characteristic Waste:
Ignitable: D001
TCLP: D018

State or local laws may impose additional regulatory requirements regarding disposal.

Call (989) 496-6315, if additional information is required.

14. TRANSPORT INFORMATION

DOT Road Shipment Information (49 CFR 172.101)

Proper Shipping Name: Flammable liquids, n.o.s.

Hazard Technical Name: Aliphatic Hydrocarbons / Xylene

Hazard Class:	3
UN/NA Number:	UN 1993
Packing Group:	II
Hazard Label(s):	Flammable Liquid

Ocean Shipment (IMDG)

Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S.
Hazard Technical Name:	Aliphatic Hydrocarbons / Xylene
Hazard Class:	3
UN/NA Number:	UN 1993
Packing Group:	II
Hazard Label(s):	flammable liquid

Air Shipment (IATA)

Proper Shipping Name:	Flammable liquid, n.o.s.
Hazard Technical Name:	Aliphatic Hydrocarbons / Xylene
Hazard Class:	3
UN/NA Number:	UN 1993
Packing Group:	II
Hazard Class:	Flammable Liquid

Call Dow Corning Transportation, (989) 496-8577, if additional information is required.

15. REGULATORY INFORMATION

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances (40 CFR 355):
None.

Section 304 CERCLA Hazardous Substances (40 CFR 302):

CAS Number	Wt %	Component Name
1330-20-7	2.4	Xylene
100-41-4	0.6	Ethylbenzene

Section 311/312 Hazard Class (40 CFR 370):

Acute: Yes
Chronic: Yes
Fire: Yes
Pressure: No
Reactive: No

Section 313 Toxic Chemicals (40 CFR 372):

CAS Number	Wt %	Component Name
1330-20-7	2.4	Xylene
100-41-4	0.6	Ethylbenzene

Supplemental State Compliance Information

California

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

CAS Number	Wt %	Component Name	
100-41-4	<1.0	Ethylbenzene	Carcinogenic.

Massachusetts

CAS Number	Wt %	Component Name
13463-67-7	30.0 - 60.0	Titanium dioxide
1330-20-7	1.0 - 5.0	Xylene
7631-86-9	1.0 - 5.0	Silica, amorphous

New Jersey

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CAS Number	Wt %	Component Name
70131-67-8	30.0 - 60.0	Dimethyl siloxane, hydroxy-terminated
13463-67-7	30.0 - 60.0	Titanium dioxide
64742-89-8	30.0 - 60.0	Light aliphatic petroleum solvent naphtha
2224-33-1	3.0 - 7.0	Vinyltri (methylethylketoxime) silane
96-29-7	<=3.0	Methylethylketoxime
1330-20-7	1.0 - 5.0	Xylene
7631-86-9	1.0 - 5.0	Silica, amorphous
21645-51-2	1.0 - 5.0	Alumina hydrate
100-41-4	<1.0	Ethylbenzene

Pennsylvania

CAS Number	Wt %	Component Name
70131-67-8	30.0 - 60.0	Dimethyl siloxane, hydroxy-terminated
13463-67-7	30.0 - 60.0	Titanium dioxide
64742-89-8	30.0 - 60.0	Light aliphatic petroleum solvent naphtha
2224-33-1	3.0 - 7.0	Vinyltri (methylethylketoxime) silane
96-29-7	<=3.0	Methylethylketoxime
1330-20-7	1.0 - 5.0	Xylene
7631-86-9	1.0 - 5.0	Silica, amorphous

16. OTHER INFORMATION

Prepared by: Dow Corning Corporation

These data are offered in good faith as typical values and not as product specifications. 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.

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