

DOW CORNING CORPORATION  
MATERIAL SAFETY DATA SHEET

FOX(R) -13 FLOWABLE OXIDE

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Dow Corning Corporation  
South Saginaw Road  
Midland, Michigan 48686

24 Hour Emergency Telephone: (517) 496-5900  
Customer Service: (517) 496-6000  
Product Disposal Information: (517) 496-6315  
CHEMTREC: (800) 424-9300

MSDS No: 03072797

Current Version: 1998/11/12

Generic Description: Silicone resin solution  
Physical Form: Liquid  
Color: Colorless  
Odor: Solvent odor  
NFPA Profile: Health 2 Flammability 3 Reactivity 1

Note: NFPA = National Fire Protection Association

SECTION 2. OSHA HAZARDOUS COMPONENTS

CAS Number	Wt%	Component	Exposure Limits
000108101	>60	Methyl isobutyl ketone	OSHA PEL (final rule) and ACGIH TLV: TWA 50 ppm, STEL 75 ppm.
137125441	10-30	Hydrogen silsesquioxane	None established.

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

SECTION 3. EFFECTS OF OVEREXPOSURE

Acute Effects

Eye: Direct contact may cause moderate irritation. Vapor may cause eye 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 or prolonged contact may cause defatting and drying of skin which may result in skin irritation and dermatitis. Repeated or prolonged exposure may irritate seriously.  
Inhalation: Overexposure by inhalation may injure the following organ(s): Lungs. Liver. Kidneys.  
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 detailed toxicology information.

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**SECTION 4. FIRST AID MEASURES**

Eye: Immediately flush with water for 15 minutes. Get medical attention.

Skin: Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get medical attention if irritation or other 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.

**SECTION 5. FIRE FIGHTING MEASURES**

Flash Point (Closed Cup): 62.60 DEGREE F / 17.00 DEGREE C

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 (CO<sub>2</sub>), dry chemical or water spray. Water can be used to cool fire exposed containers.

Fire Fighting Procedures: 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. Hydrogen.

**SECTION 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. Materials in contact with water, moisture, acids or bases have the potential to generate hydrogen gas. Recovered material should be stored in a vented container. Clean up remaining materials from spill with suitable absorbant. Clean area as appropriate since some silicone 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.

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NOTE: See Section 8 for Personal Protective Equipment for Spills.  
Call Dow Corning Corporation, (517)496-5900, if additional information is required.

**SECTION 7. HANDLING AND STORAGE**

Use with adequate ventilation. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Avoid eye exposure. Do not take internally. Avoid skin contact.

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. Product evolves minute quantities of flammable hydrogen gas which can accumulate. Adequately ventilate to maintain vapors well below flammability limits and exposure guidelines. Do not repackage. Do not store in glass containers which may shatter due to pressure build up. Store only in vented containers. Clogged vents may increase pressure build up. Keep container closed and store away from water or moisture.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Engineering Controls

Local exhaust: 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). Teflon(R). Butyl Rubber. Polyvinylalcohol.

Inhalation: Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data show exposures are within recommended exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls.

Suitable Respirator: Organic Vapor Type.

Personal Protective Equipment For Spills

Eye: 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: Use self-contained breathing apparatus (SCBA) or other supplied-air respirator.

Precautionary Measures: Avoid eye exposure. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally.

Comments: When heated to temperatures above 180 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.

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Note: These precautions are for room temperature handling. Use at elevated temperature, or aerosol/spray applications, may require added precautions.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical form: Liquid  
Color: Colorless  
Odor: Solvent odor  
Specific Gravity @ 25C: 0.82  
Viscosity: 0.60 CST  
Freezing/Melting Point: Not Applicable.  
Boiling Point: > 35C/95F  
Vapor Pressure @ 25C: Not Determined.  
Vapor Density: Not Determined.  
Solubility in Water: Not Determined.  
pH: Not Applicable.  
Volatile content: Not Determined.

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

**SECTION 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, alcohols, acidic or basic materials, and many metals or metallic compounds, when in contact with product, liberate flammable hydrogen gas, which can form explosive mixtures in air.  
Comments: None

**SECTION 11. TOXICOLOGICAL INFORMATION**

ACUTE TOXICOLOGY DATA FOR PRODUCT

Complete information is not yet available.

COMPONENT TOXICOLOGY INFORMATION

Complete information is not yet available.

SPECIAL HAZARD INFORMATION ON COMPONENTS

No known applicable information.

**SECTION 12. ECOLOGICAL INFORMATION**

Environmental Fate and Distribution

No specific information is available.

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Ecotoxicity

No specific information is available.

Persistence and Degradation

No specific information is available.

Ecotoxicity Classification Criteria

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

**SECTION 13. DISPOSAL CONSIDERATIONS**

RCRA Hazard Class (40CFR 261)

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

Federal Hazardous Waste Code: NA

Characteristic Waste: Ignitable: D001                      Corrosive: NA                      Reactive: D003

TCLP: NA

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

NA = Not Applicable

Call Dow Corning Corporate Environmental Management, (517)496-6315, if additional information is required.

**SECTION 14. TRANSPORT INFORMATION**

DOT Road Shipment Information (49CFR 172.101)

Proper Shipping Name: METHYL ISOBUTYL KETONE SOLUTION

Hazard Technical Name: Not Applicable

Hazard Class: 3

UN/NA Number: UN1245

Packing Group: II

0000 and NA = Not Applicable

Call Dow Corning Transportation, (517)496-8577, if additional information is required.

**SECTION 15. REGULATORY INFORMATION**

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

TSCA Status:

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

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EPA SARA Title III Chemical Listings:

Section 302 Extremely Hazardous Substances:

None

Section 304 CERCLA Hazardous Substances:

000108101                    90        Methyl isobutyl ketone

000108883                    .6        Toluene

Section 312 Hazard Class:

Acute:     Y

Chronic:   Y

Fire:     Y

Pressure:   N

Reactive:   Y

Y = Yes        N = No

Section 313 Toxic Chemicals:

000108101                    90        METHYL ISOBUTYL KETONE

Supplemental State Compliance Information

CAS Number                    Wt%                    Component

**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.

None Known.

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 birth defects or other reproductive harm.

000108883                    0.1-1.0                Toluene

**Massachusetts**

000108101                    >60                    Methyl isobutyl ketone

**New Jersey**

137125441                    10-30                    Hydrogen silsesquioxane

000108101                    >60                    METHYL ISOBUTYL KETONE; #1268

**Pennsylvania**

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137125441	10-30	Hydrogen silsesquioxane
000108101	>60	Methyl isobutyl ketone

SECTION 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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