**SAFETY DATA SHEET** 

MATERIAL NAME: SOLVENT 200

PART NUMBER(S): 710XX413, 710XX417

EMERGENCY TÈLEPHONE NO.: CALL INFOTRAC AT 1-800-535-5053

**PRODUCT INFORMATION NO.:** (513) 874-6550

**DATE ISSUED: FEBRUARY 1, 2018** 

# **SECTION 1 – GENERAL INFORMATION**

MANUFACTURER'S NAME: VALCO CINCINNATI, INCORPORATED ADDRESS: 411 CIRCLE FREEWAY DRIVE, CINCINNATI, OHIO 45246

**GENERAL DESCRIPTION: Methyl Siloxane** 

PHYSICAL FORM: Liquid COLOR: Colorless ODOR: Slight odor

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PROFILE:

Health: 1 Flammability: 3 INSTABILITY/REACTIVITY: 0

# **SECTION 2 – HAZARDS IDENTIFICATION**

### **POTENTIAL HEALTH EFFECTS**

**Acute Effects** 

Eye: Direct contact may cause mild irritation.

Skin: No significant irritation expected from a single short-term exposure.

Inhalation: Irritates respiratory passages very slightly. Overexposure by inhalation may cause

drowsiness, dizziness, confusion or loss of coordination.

Oral: Overexposure by ingestion may cause drowsiness, dizziness, confusion or loss of

coordination.

### Prolonged/Repeated Exposure Effects

Skin: Repeated or prolonged contact may cause defatting and drying of skin which may result in

skin irritation and dermatitis.

Inhalation: No known applicable information.

Oral: No known applicable information.

### 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 date and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

### **SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

CAS Number Wt % Component Name

107-46-0 55.0 - 75.0 Hexamethyldisiloxane (HMDS)

107-51-7 30.0 - 50.0 Octamethyltrisiloxane

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

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# **SECTION 4 - FIRST AID MEASURES**

Eye: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes

while holding the eyelid(s) open. Obtain medical attention.

Skin: Remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly

and gently blot or brush away excess chemical. Flush with lukewarm gently flowing water for 15 minutes. If irritation persists, repeat flushing. If irritation persists, obtain medical advice.

Inhalation: Remove from the source of contamination or move to fresh air. If irritation persists, obtain

medical advice.

Oral: Never give anything by mouth if victim is rapidly losing consciousness or convulsing, DO NOT

INDUCE VOMITING. Have victim drink 2 to 8 oz. (60 to 240 mL) of water. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Have victim rinse mouth

with water again. Immediately obtain medical attention.

Notes to Physician: Treat according to person's condition and specifics of exposure.

### **SECTION 5 - FIRE FIGHTING MEASURES**

Flash Point: 26.6 °F / -3 °C (Closed Cup)

Autoignition Temperature: 662 °F / 350 °C

Flammability Limits in Air: Lower Limit: 0.9 % Upper Limit: 13.8 %

Extinguishing Media: On large fires use AFFF alcohol compatible foam or water spray (fog). On small fires use

AFFF alcohol compatible foam, CO2 or water spray (fog). 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. Fire burns more vigorously than would be expected.

### **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. 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.

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### **SECTION 7 - HANDLING AND STORAGE**

Use with adequate ventilation. 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.

### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### Component Exposure Limits

CAS Number Component Name **Exposure Limits** 

107-46-0 Hexamethyldisiloxane (HMDS) Dow Corning guide: TWA 200 ppm.

107-51-7 Octamethyltrisiloxane Dow Corning guide: TWA 200 ppm.

# **Engineering Controls**

Local Ventilation: Recommended. General Ventilation:

Recommended.

### Personal Protective Equipment for Routine Handling

Eyes: Use proper protection - safety glasses as a minimum.

Skin: Wash at mealtime and end of shift. Contaminated clothing and shoes should be removed as

soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are

recommended.

Suitable Gloves: Avoid skin contact by implementing good industrial hygiene practices and procedures. Select

and use gloves and/or protective clothing to further minimize the potential for skin contact. Consult with your glove and/or personnel protective equipment manufacturer for selection of

appropriate compatible materials.

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. Contaminated clothing and shoes should be removed as

soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are

recommended.

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### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT)

Inhalation/Suitable Respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR

Respirator: 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.

**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: Slight odor

Specific Gravity @ 25°C: 0.78

Viscosity: 0.75 mm2/s

Freezing/Melting Point: Not determined.

Boiling Point: 110 °C

Vapor Pressure @ 25°C: Not determined.

Vapor Density: Not determined. Solubility in Water: Not determined. pH: Not determined. Volatile Content: Not determined.

Flash Point: 26.6 °F / -3 °C (Closed Cup)

Autoignition Temperature: 662 °F / 350 °C

Flammability Limits in Air: Lower Limit: 0.9 % Upper Limit: 13.8 %

# **SECTION 10 - STABILITY AND REACTIVITY**

Chemical Stability: Stable.

Hazardous Polymerization will not occur.

Polymerization:

Conditions to Avoid: None

Materials to Avoid: Oxidizing material can cause a reaction.

### Hazardous Decomposition Products

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

# **SECTION 11 - TOXICOLOGICAL INFORMATION**

# Component Toxicology Information

This material contains octamethyltrisiloxane (L3). Repeated exposure in rats to L3 resulted in what appears to be

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### SECTION 11 - TOXICOLOGICAL INFORMATION (CONT)

protoporphyrin accumulation in the liver at dose levels that exceed typical workplace or consumer exposures. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown. Industrial, commercial, or consumer intended uses of products containing L3 do not represent a risk to humans.

A 2-year combined chronic/carcinogenicity study was conducted on HMDS in Fischer 344 rats. A dose related increase in Leydig cell tumors was observed at the end of one year. Nearly 100% of the male rats in the control and treated groups had Leydig cell tumors at the end of 2 years, which is an expected observation in this strain of rat. The early onset of Leydig cell tumors in this study may have little or no relevance to humans. Also at the end of two years there was a dose related increase in kidney tumors in male rats at the two highest exposure concentrations (1,600 and 5,000 ppm). Additional work indicates that the kidney tumors in the male rats are mediated through a-2u-globulin. This is considered a rat-specific mode of action with no relevance to humans. The lack of relevance of these findings from this study to humans supports the use of HMDS in its intended applications.

This material contains hexamethyldisiloxane (HMDS). Repeated exposure in rats to HMDS resulted in what appears to be protoporphyrin accumulation in the liver at dose levels that exceed typical workplace or consumer exposures. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown. Industrial, commercial, or consumer intended uses of products containing HMDS do not represent a risk to humans

### Special Hazard Information on Components

No known applicable information.

# **SECTION 12 - ECOLOGICAL INFORMATION**

### **Environmental Fate and Distribution**

Air: Low molecular weight volatile siloxanes in air are degraded by reaction with hydroxyl radicals.

which is the dominant degradation process for most chemicals in the atmosphere.

Low molecular weight volatile siloxanes have very low water solubility and evaporate to air. Water:

Low molecular weight volatile siloxanes in soil are removed by several simultaneously Soil:

occurring processes including volatilization, hydrolysis, and clay-catalyzed degradation.

# **Environmental Effects**

Toxicity to Water

Organisms:

Based on analogy to similar materials this product is expected to exhibit low toxicity to aquatic organisms. This product is volatile and has a very short half life in the aquatic environment

and therefore does not present a risk to aquatic organisms.

Toxicity to Soil Organisms: Due to its volatility, this product is unlikely to be found in the terrestrial compartment.

Bioaccumulation: Low molecular weight volatile siloxanes bioconcentrate in fish exposed under controlled

laboratory conditions that are not representative of conditions found in the environment.

# Fate and Effects in Waste Water Treatment Plants

Low molecular weight volatile siloxanes are efficiently removed (>90%) during wastewater treatment with approximately equal amounts going to the atmosphere and the sludge. Low molecular weight volatile siloxanes in treated wastewater effluent will be bound to particulate matter because of very low water solubility.

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# SECTION 12 - ECOLOGICAL INFORMATION (CONT)

### **ECOTOXICITY CLASSIFICATION CRITERIA**

Hazard Parameters ( LC50 or EC50)	High	Medium		Low	
Acute Aquatic Toxicity (mg/L)	< = 1	> 1 a	and < = 100	>	100
Acute Terrestrial Toxicity	< = 100	<b>&gt;</b> 10	00 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**

### 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

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

# **SECTION 14 - TRANSPORTATION**

### **DOT Road Shipment Information (49 CFR 172.101)**

Proper Shipping Name:

Flammable liquids, n.o.s.

Hazard Technical Name:

Hexamethyldisiloxane / Octamethyltrisiloxane

Hazard Class:

3

UN/NA Number:

UN 1993

Packing Group:

11

Hazard Label(s):

Flammable Liquid

# Ocean Shipment (IMDG)

Proper Shipping Name:

FLAMMABLE LIQUID, N.O.S.

Hazard Technical Name:

Hexamethyldisiloxane / Octamethyltrisiloxane

Hazard Class:

3

UN/NA Number:

UN 1993

Packing Group:

Ш

Hazard Label(s):

flammable liquid

Marine Pollutant:

Hexamethyldisiloxane

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# SECTION 14 - TRANSPORTATION CONT)

### Air Shipment (IATA)

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

Hazard Technical Name: Hexamethyldisiloxane / Octamethyltrisiloxane

Hazard Class: 3

UN/NA Number: UN 1993

Packing Group:

Hazard Label(s): Flammable Liquid

### **SECTION 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 i

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):

None.

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

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

Reactive: No Section 313 Toxic Chemicals (40 CFR 372):

None present or none present in regulated quantities.

Note: Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

### 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.

None known.

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# **SECTION 15 - REGULATORY INFORMATION (CONT)**

#### **New Jersey**

CAS Number	<u>Wt %</u>	Component Name
107-46-0	55.0 - 75.0	Hexamethyldisiloxane (HMDS)
107-51-7	30.0 - 50.0	Octamethyltrisiloxane

#### Pennsylvania

CAS Number	<u>Wt %</u>	Component Name
107-46-0	55.0 - 75.0	Hexamethyldisiloxane (HMDS)
107-51-7	30.0 - 50.0	Octamethyltrisiloxane

# SECTION 16 – OTHER INFORMATION

TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED HEREIN IS ACCURATE; OBTAINED FROM SOURCES BELIEVED BY VALCO CINCINNATI, INC. TO BE ACCURATE. SINCE THE CONDITIONS AND METHODS OF USE OF OUR PRODUCT ARE BEYOND OUR CONTROL, WE DISCLAIM ANY AND ALL LIABILITY ARISING OUT OF THE IMPROPER USE OF THIS PRODUCT OR THE INFORMATION PROVIDED HERE WITH.