



MATERIAL SAFETY DATA SHEET

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Effective Date: 1/1/08 Supercedes: 6/29/05

Emergency #: 405-745-2070

SECTION I. PRODUCT IDENTIFICATION

PRODUCT NAME: **SW-244 Water Repellent**

CHEMICAL NAME & SYNONYMS: Water Repellent / Mineral Spirits Based Mixture of Modified Siloxanes

PROCESSORS NAME: Chemical Products Industries, Inc.
7649 S.W. 34th Street
Oklahoma City, OK 73179
Tel: (405) 745-2070

CHEMICAL FAMILY: Petroleum Hydrocarbon Naphtha Solution of Oligomeric Organosiloxane (partially hydrolyzed silane).

CHEMICAL FORMULA: C8 to C12 Naphtha solution of silicon, oxygen, carbon and hydrogen containing chemical compounds with a basic structural unit of R₂SiO, where R is a hydrocarbon group.

SECTION I A. HAZARDOUS COMPONENTS

INGREDIENTS	CAS NUMBER	% BY WT*	OSHA PEL	ACGIH TLV
- Alkyl silicone resin with alkoxy group(s)	Mixture	10-20 %	100 ppm	100 ppm
- Mineral Spirits	8052-41-3	Balance	n.e.	n.e.
- Methanol (hydrolysis by-product)	67-56-1		200 ppm (skin)	200 ppm (skin)

SECTION II. - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
APPEARANCE:	Clear, colorless
ODOR:	Mineral Spirit - Slight odor
AVERAGE MOLECULAR WEIGHT:	140
BOILING POINT, 760 mm Hg:	IBP > 300 °F, 149 °C
FLASH POINT, Tag Closed Cup	> 100 °F
VAPOR PRESSURE, at 100 F:	9 mm Hg
LIQUID DENSITY:	0.76 g/cc
SOLUBILITY IN WATER, by wt.:	Negligible
PERCENT VOLATILE BY VOLUME:	84.5 %
PERCENT VOLATILE BY WEIGHT:	< 84.5 %

SECTION III. HEALTH HAZARDS

NFPA 704 CODES: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious and 4=Severe

HEALTH (BLUE)	FLAMMABILITY (RED)	REACTIVITY (YELLOW)	CLOTHING
NFPA: 2	NFPA: 2	NFPA: 1	NFPA: G
HMIS: 2	HMIS: 3	HMIS: 0	HMIS: G

EYE CONTACT: Causes moderate irritation.
SKIN CONTACT: Causes moderate skin irritation, may cause defatting.
INHALATION: Causes moderate respiratory tract irritation; causes central nervous system effects, may be fatal.
INGESTION: This material can enter the lungs during swallowing or vomiting and cause lung inflammation and / or damage (aspiration hazard). However, ingestions not expected in industrial use.

ACUTE EFFECTS OF EXPOSURE: Refer to routes of exposure above.

CHRONIC EFFECTS OF EXPOSURE: None known.

There are no data available which address medical conditions that are generally recognized as being aggravated by exposure to this product.

This material does not contain any ingredients listed by IARC, NTP or OSHA as carcinogens in amounts exceeding 0.1%.

This material releases methyl alcohol upon hydrolysis. Methyl alcohol causes optic neuropathy, metabolic acidosis and respiratory depression. Signs and symptoms of overexposure include headache, blurred vision, constricted visual fields, shortness of breath, dizziness and vertigo. Ingestion of methyl alcohol may lead to blindness or death.

SECTION IV. FIRST AID MEASURES

EYE CONTACT: In case of contact, flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing the entire surface of the eye and lids with water. Get medical attention.

SKIN CONTACT: Remove excess material from the skin with a waterless skin cleaner. Flush skin with plenty of water and wash well with water and soap. Remove contaminated clothing and shoes. Obtain medical attention. Wash clothing before reuse.

INHALATION: If inhaled, remove to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

INGESTION: Never give an unconscious person anything to drink. If unconscious, treat for shock. Notify a physician or the nearest poison control center immediately. If conscious, have the person rinse his mouth with cold water. Do not attempt to induce vomiting (vomiting may occur naturally, but it should be avoided if possible). If unconscious and vomiting, turn the person on his side to avoid choking.

SECTION V. FIRE AND EXPLOSION HAZARD DATA

This product is considered combustible and is a fire hazard. It supports combustion and decomposes under fire conditions to give off toxic materials. Do not pour, spill or store near heat, spark sources, or open flames.

Flammable vapors may accumulate in the container headspace on formation of hydrolysis by-products.

Vapors are heavier than air and may travel along the ground, be moved by ventilation systems, settle in pits or low areas, and be ignited by ignition sources distant from the handling point. To prevent fire or explosion from static accumulation and discharge, effectively ground the material transfer system.

As in any fire, prevent human exposure to fire, smoke, fumes, or products of combustion. Evacuate non-essential personnel from the fire area. Fire fighters should wear full-face, self-contained breathing apparatus and impervious protective clothing.

Use carbon dioxide, dry chemical or foam type extinguishing media.

Use water spray to cool non-involved containers.

SECTION VI. SPILL, LEAK & DISPOSAL PROCEDURES

Eliminate all ignition sources. Control the source of the spill if it is safe to do so.

Dike area to contain spill and to prevent entry into sewers or waterways.

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices (refer to SECTION VIII: INDUSTRIAL HYGIENE).

Absorb spill with sand or Fuller's earth. Sweep up and place in an appropriate chemical waste container. Flush spill area with water. Observe all local, state, and federal laws and regulations regarding disposal, spill, cleanup, removal, or discharge.

SECTION VII. HANDLING AND STORAGE

Store in a cool, dry, well ventilated area. Keep away from heat, sparks and open flame. Never use welding or cutting torch on or near any container (even empty) as an explosion can occur. Care Should be taken to prevent moisture condensation in the container.

Open container with care. Flammable vapors may be present in the container headspace as a result of the formation of hydrolysis by-products.

SECTION VIII. PERSONAL PROTECTION

Appropriate personal protective equipment necessary to prevent contact should be worn. Ventilation that keeps the organic vapor concentration below 100 ppm is recommended. For concentrations up to 1,000 ppm, wear a NIOSH/MSHA approved respirator in accordance with OSHA standard 29 CFR 1910, 134 for organic vapors. Up to 5,000 ppm, wear a full-face organic vapor respirator or full face supplied air respirator. Greater than 5,000 ppm, fire fighting or unknown concentrations, wear self-contained breathing apparatus with positive pressure. Eye protection, resistant clothing and resistant boots should be worn where spills or splashing can occur. Chemical proof goggles are recommended. Gloves of impervious materials (nitrile, neoprene or other material resistant to naphtha) are recommended. Wash contaminated clothing before reuse. An eye wash station should be available.

SECTION IX. STABILITY AND REACTIVITY

SW-244 may react with silica in concrete and masonry in the presence of ultraviolet light and moisture forming bonds with the substrate and produces methyl alcohol in normal use. The mineral spirits evaporate - avoid breathing the vapor. The siloxane content of the aqueous mixture will react with bases, acids and oxidizers producing heat, polymers and oxidation by-products. Vaporization of small quantities of solvent controls any heat released. Atomization, vaporization or combustion forms aerosols which can carry siloxane containing materials, carbon oxides and silicon dioxide into the atmosphere. Hazardous polymerization will not occur.

Non corrosive to materials commonly used in the construction of process equipment, storage and shipping containers.

Hydrolyzes slowly at ambient temperatures to form methyl alcohol.

Avoid contact with water and strong oxidizing agents.

Stable at ambient temperatures and atmospheric pressure.

HAZARDOUS/THERMAL DECOMPOSITION PRODUCTS: SiO₂, CO, CO₂, formaldehyde and various hydrocarbon fragments.

SECTION X. TOXICOLOGICAL INFORMATION

The mineral spirits are combustible, and have acute and chronic health hazards. The OSHA PEL and ACGIH TLV is 100 ppm for the mineral spirits. The solvent vapors are harmful if inhaled and may cause delayed lung injury. In a confined area, the high vapor pressure of the solvent can generate harmful concentrations. Inhalation can cause nervous system depression. The solvent is an aspiration hazard if swallowed - it can enter the lungs and cause damage. The active ingredients, siloxanes, are known to be a mild eye and upper respiratory irritant. The OSHA PEL and ACGIH TLV has not been established for siloxanes; however, the low vapor pressure of siloxane containing materials in SW 244™ should produce air concentrations below expected exposure limits. The LD50 for the siloxanes has not been determined, but should be relatively high based upon typical silicone toxicity. Do not take internally, avoid breathing mist and minimize eye and skin contact.

HEALTH HAZARD CATEGORIES: None of the product's ingredients are found on any lists of carcinogenic or banned chemical agents or materials generated by them.

INDUSTRIAL HYGIENE: The recommendations described in this section are provided as general guidance for minimizing exposure when handling this product. Because use conditions will vary depending upon customer applications, specific safe handling procedures should be developed by a person knowledgeable of the intended use conditions and equipment. During the development of safe handling procedures, consideration should be given to the need for cleaning of equipment and piping systems to render them non-hazardous before maintenance and repair activities are performed.

ENGINEERING CONTROLS: When the need for engineering controls is indicated by the conditions under which the product is used, one or more of the following techniques may be selected to limit employee exposure: general ventilation, local exhaust ventilation, enclosure of confinement of the operation, and/or process isolation with remote control operation.

INGESTION: Open containers of food and beverages should be kept away from areas where the product is used or stored. Eating, drinking, smoking, and application of cosmetics should be prohibited in areas where the product is being used. Before eating, hands and face should be washed to remove residual contamination.

SKIN CONTACT: Skin contact should be minimized through the use of gloves and suitable long-sleeved clothing selected with regard for use condition exposure potential.

EYE CONTACT: Eye contact should be avoided through the use of chemical safety glasses, goggles, or a facer shield selected with regard for use condition exposure potential.

INHALATION: If the product is used under conditions which generate airborne contamination, these processing operations should be carried out in open, well-ventilated areas, or in enclosed areas equipped with local exhaust ventilation. If adequate ventilation is not available, employees should be provided with appropriate, approved, air-purifying or supplied-air respirators selected in accordance with NIOSH guidelines.

EXPOSURE LIMITS: Exposure limits for its hazardous components, if any, are listed in Section 1A on page one.

NOTE: Respiratory protection is recommended in the event that ventilation or engineering controls are unable to maintain exposures below recommended levels, or in the event of a spill or other emergency situation. Hazardous Materials Identification System and HMIS are registered trademarks of the National Paint and Coating Association.

SECTION XI. ECOLOGICAL INFORMATION

Do not allow SW-244 to enter soil or drains.

SECTION XII. DISPOSAL CONSIDERATIONS

Small quantities may be handled by evaporating the solvent in a hood and then the remaining material disposed in appropriate land fills. Disposal of large quantities should be through a licensed disposal company. Utilize a permitted hazardous waste disposal site or industrial waste disposal site as appropriate. Consider recycling or incineration.

Material that cannot be used or chemically reprocessed should be disposed of at an approved facility in accordance with any applicable regulations under the Resource Conservation and Recovery Act (RCRA).

NOTE: State and local regulations may be more stringent than those under RCRA.

If this product becomes a waste, it is considered a hazardous waste due to its ignitability.

Dispose of empty containers according to any applicable regulations under the Resource Conservation and Recovery Act (RCRA). NOTE: State and local regulations may be more stringent than those under RCRA.

Empty containers may contain residual material. Do not reuse containers unless properly reconditioned.

SECTION XIII. TRANSPORT INFORMATION

DOT SHIPPING NAME (49CFR 172.101):	PETROLEUM DISTILLATES, n.o.s. (MINERAL SPIRITS, SILOXANE)
- DOT HAZARD CLASS:	3
- DOT ID# (49CFR 172.101):	1268
- PACKING GROUP	III
- MARKING:	Flammable Liquid
- LABEL:	Flammable Liquid
- PLACARD:	YES
- HAZARD (29 CFR 1910.1200):	Flammable

SECTION XIV. REGULATORY INFORMATION

FEDERAL

This mineral spirits contain up to 1 weight percent of each Xylene (CAS # 1330-20-7) and 1,2,4 Trimethylbenzene. This product is a combustible material under the OSHA Hazard Communication Standard (29 CFR 1910-1200). This product is hazardous under EPA regulations.

TSCA: This material or its components are listed on the TSCA Chemical Substance Inventory and is in compliance with all applicable rules and orders.

TSCA: This product contains 1,2,4-trimethylbenzene (pseudocumene) which is subject to a TSCA Section 4 (a) Final Test Rule and Section 12 (b) Export Regulations.

TSCA: This product contains 1,3,5-trimethylbenzene which is subject to a TSCA Section 4 (a) Final Test Rule and Section 12 (b) Export Regulations.

SARA: This information should be included in all MSDS that are copied and distributed for this material. This product contains a substance (s) that is (are) on the list of toxic chemicals subject to Section 313 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III). The substance (s) listed below may be subject to an annual submission of a Toxic Chemical Release Form:

Chemical	CAS NO.	Approx. Weight%
Pseudocumene	95-63-6	4.5% maximum

RCRA Hazard Class:
D001

Department of Transportation (DOT):
 Proper shipping name: Petroleum distillates, N.O.S.
 Technical Name (s): (Naptha)
 Hazard Class or Division: 3
 Packing Group: III
 UN/NA Number: UN 1268
 Label Required: Flammable liquid
 Hazardous Substance RO (Name): Not applicable
 Inhalation Hazard (173.3a (b)): Not applicable

This material or its components are listed on the Canadian Domestic Substance List (DSL).

CANADIAN INGREDIENT DISCLOSURE LIST: This material contains the following listed components in quantities greater than the specified weight-to-weight concentration:

Stoddard solvent; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene

CALIFORNIA PROPOSITION 65: This material does not contain any substances known to the State of California to cause cancer or reproductive effects.

MASSACHUSETTS SUBSTANCE LIST: This material contains the following listed components:

Stoddard solvent; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene

PENNSYLVANIA HAZARDOUS SUBSTANCE LIST: This material contains the following listed components:

Stoddard solvent; 1,2,4-trimethylbenzene

NEW JERSEY R-T-K HAZARDOUS SUBSTANCE LIST: This material contains the following listed components:

Stoddard solvent; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene

Hazardous Materials Identification System (HMIS)

(for material as packaged):

Health Hazard = 2
Flammability Hazard = 2
Reactivity Hazard = 1
Personal Protection = G

Hazardous Materials Identification System (HMIS)

(based on contact with hydrolysis/cure by-product)

Health Hazard = 2
Flammability Hazard = 3
Reactivity Hazard = 0
Personal Protection = G

NOTE: Respiratory protection is recommended in the event that ventilation or engineering controls are unable to maintain exposures below recommended levels, or in the event of a spill or other emergency situation.

Hazardous Materials Identification System and HMIS are registered trademarks of the National Paint and Coating Association.

SECTION XV. OTHER INFORMATION

n.e. = Not established; n.a. = Not applicable/ not available; n.d. = Not determined; TLV = Threshold Limit Value; PEL = Permissible Exposure Limit; OSHA = Occupational Safety and Health Administration; ACGIH = American Conference of Governmental Industrial Hygienists; LEL = Lower Explosive Limit; UEL = Upper Explosive Limit; ppm = parts per million; TSCA = Toxic Substances Control Act; SARA = Superfund Amendments and Reauthorization Act; Dot = Department of Transportation.

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APPROVED BY: _____

DATE: 1/1/08
SUPERCEDES: 6/29/05

All terms and abbreviations have been defined in various government publications, or are standard chemical terms used by IUPAC.

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