

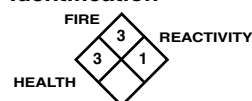
MATERIAL SAFETY DATA SHEET and WARRANTY

B514-4K14

Date: October 14, 2004

Section I

Identification



HEALTH	[3]
FLAMMABILITY	[3]
REACTIVITY	[1]
PROTECTION	[1]

Product Name:	SCOFIELD® Selectseal-S™
Chemical Name:	Mixture
Chemical Family:	Aliphatic Urethane
Chemical Formula:	Mixture
Emergency Telephone Number:	CHEMTREC (800) 424-9300
Telephone Number for Information:	SCOFIELD (770) 920-6000 (323) 720-3000

Section II

Composition/ Information on Ingredients

Composition	Weight	OSHA PEL	ACGIH TLV	CAS Number
Homopolymer of HDI	50–60%	0.5 mg/m ³		28182-81-2
Toluene**^	10–30%	100 ppm	50 ppm	108-88-3
Propylene Glycol Monomethyl Ether Acetate*	1–10%	None Established	None Established	108-65-6
N-methyl-2-pyrrolidone**	5–10%	None Established	None Established	872-50-4
Hexamethylene Diisocyanate, Free Monomer*	0.01–1%	0.02 ppm	0.005 ppm	822-06-0

* Indicates chemical(s) that are chronic health hazards. Refer to section III for further information.

+ Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

^ Indicates Hazardous Air Pollutant established by the EPA as directed by the Clean Air Act of 1990.

Section III

Hazards Identification

Primary Routes of Exposure:
Skin contact, eye contact, and inhalation.

Effects of Acute Exposure:

Eyes — **Contact with eyes may cause irritation including burning, watering, and redness.**

Skin — **Contact may cause mild skin irritation including redness, burning, and drying and cracking of skin. Continued exposure may develop into dermatitis. Solvents can penetrate the skin and cause systematic effects similar to those under *Inhalation* symptoms. Isocyanates react with skin protein and moisture and can cause irritation. Prolonged contact with isocyanates can cause swelling, rash, scaling or blistering. In those who have developed skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material or even as a result of vapor-only exposure.**

Inhalation — **High vapor concentrations are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, asthma, drowsiness, unconsciousness, and other central nervous system effects, and possibly death.**

Ingestion — **Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Small amounts aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury.**

Chronic Health Effects:

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as Solvent or Painter's Syndrome). Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal. Chronic exposure may also cause damage to the respiratory system, lungs, eyes, skin, gastrointestinal tract, liver, spleen and kidneys. Repeated skin contact may cause persistent irritation or dermatitis.

Medical Conditions Generally Aggravated by Exposure:

Conditions aggravated by exposure may include skin disorders, respiratory (asthma-like) disorders, and pre-existing liver or kidney conditions.

Section IV

First Aid Measures

Emergency and First Aid Procedures:

Skin — Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If irritation develops and persists, seek medical attention.

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Section IV First Aid Measures (continued)

Emergency and First Aid Procedures (continued):

Eyes — **Flush with large amounts of water for 15 minutes, lifting upper and lower lids occasionally. If symptoms persist, seek medical attention.**

Ingestion — **Do not induce vomiting. Immediately administer 1–2 glasses of water and contact a physician, hospital emergency room, or poison control center for further advice. Keep person warm, quiet and seek immediate medical attention. Aspiration of material into lungs can cause severe lung damage. VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.**

Inhalation — **Move affected individual to fresh air. If breathing is difficult, qualified personnel should administer oxygen. If breathing has stopped give artificial respiration. If respiratory symptoms develop or persist, seek medical attention.**

Section V Fire and Explosion Hazard Data

Flash Point (Method Used): **40° F (Seta Flash)**

Flammable Limits in Air by Volume: **Lower – 1.0 Upper – 13.1**

Extinguishing Media: **Foam, CO², or dry chemical is recommended. Water spray is recommended to cool or protect exposed materials or structures.**

Special Fire Fighting Procedures: **Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment. Isolate danger area, keep unauthorized personnel out. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters. Carbon dioxide can displace oxygen, exercise caution when using CO² in confined areas.**

Unusual Fire and Explosion Hazards: **Vapors may be ignited by heat, sparks, flames, or other sources of ignition. Vapors are heavier than air and may travel considerable distances to a source of ignition where they may cause a flashback or explosion. If container is not properly cooled, it can rupture in the presence of excessive heat.**

Section VI Accidental Release Measures

Steps to Be Taken in Case Material is Released or Spilled: **Keep all sources of ignition and hot metal surfaces away from spill/release. Use explosion-proof non-sparking equipment. Stay upwind from area. Isolate danger and keep unauthorized personnel out. Stop source of release if possible with minimal risk. Wear appropriate protective equipment including respiratory protection. Prevent spill from entering sewers, storm drains, or any other unauthorized treatment drainage systems and natural waterways by diking ahead of the spill. Spilled material may be absorbed with an appropriate spill kit. Notify fire authorities and appropriate federal, state, and local agencies if required.**

Section VII Handling and Storage

Handling Information: **Employees who come in contact with this material must be trained in accordance to 1910.1200 of the Hazard Communication Standard. Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel to another. Static charge can accumulate by flow or agitation. Ignition can occur by static discharge. The use of explosion proof equipment is recommended and may be required. The use of respiratory protection is advised when concentrations exceed any established exposure limits and in confined spaces. Use good industrial and personal hygiene practice, wash thoroughly after handling, and do not wear contaminated clothing.**

Storage Information: **Keep containers tightly closed. Use and store material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post "No smoking or open flame" sign. Store only in approved containers. Keep away from incompatible materials (see section 10). Protect containers against physical damage. Indoor storage should meet OSHA standards and appropriate fire codes.**

Other Precautions: **Empty containers retain residue, liquid and vapor, and may be dangerous. Do not cut, weld, pressurize, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause severe personal injury or death. All containers should be disposed of in an environmentally safe manner in accordance with all government regulations.**

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Section VIII Control Measures/ Personal Protection

Respiratory Protection: **Engineering or administrative controls in conjunction with a respirator program is recommended to reduce exposure, and as a part of plant hygiene. A respirator that is recommended or approved for use in isocyanate-containing environments (air-purifying or fresh air-supplied) may be necessary for spray applications or other situations such as high temperature use which may produce inhalation exposures. An air-supplied respirator is recommended. Before an air-purifying respirator can be used, air monitoring must be performed to measure airborne concentrations of isocyanates. An air-purifying respirator (combination organic vapor and particulate) proven by test to be effective in isocyanate-containing spray environments can be used when ALL of the following conditions are met:**

Airborne isocyanate monomer concentrations are known to be below 0.05 ppm averaged over 8 hours; airborne polyisocyanate concentrations are below 0.5 mg/m³ averaged over 8 hours.

Use NIOSH certified end of service life indicator or a change schedule based upon objective information or data to ensure that cartridges are replaced before the end of their service life. In addition, prefilters should be changed whenever breathing resistance increases due to particulate buildup.

Ventilation: **If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used.**

Protective Gloves: **Prevent prolonged or repeated contact by wearing gloves impervious to solvents and other appropriate protective clothing. Launder contaminated clothing before reuse.**

Eye Protection: **Wear safety glasses to reduce eye contact potential. Chemical safety goggles (ANSI Z87.1 or approved equivalent) are appropriate if splashing is likely. Eye washes must be available where eye contact can occur.**

Other Protective Clothing or Equipment: **A source of clean water should be available for flushing eyes and skin. Showers should be available if larger spills are possible.**

Work/Hygienic Practices: **Efforts should be made to minimize contact and spills. Always wash hands before eating, drinking, or smoking. Clean up spills promptly. Follow OSHA and company guidelines.**

Section IX Physical and Chemical Properties

Physical State:	Liquid	Color:	Clear
Odor:	Hydrocarbon odor	Solubility in Water:	Insoluble/Negligible
Specific Gravity (H ₂ O = 1):	1.03	Vapor Density:	Heavier than air
Boiling Range:	231° F–396° F	Evaporation Rate:	Faster than nBuAc
% Volatile by Weight:	< 40%	Coating VOC:	403 g/L (3.36 lb/gal)

Section X Stability and Reactivity

Stability:	Stable under normal conditions and handling.
Conditions to Avoid:	All possible sources of ignition.
Incompatibility (Materials to Avoid):	Avoid exposure to strong oxidizing agents and reducing agents.
Hazardous Decomposition or By-products:	Combustion may liberate toxic by-products such as carbon dioxide, carbon monoxide, various oxides of carbon and nitrogen.
Hazardous Polymerization:	Will not occur.

Section XI Toxicological Information

Sensitization: **As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanates at levels well below applicable exposure limits. These symptoms could be immediate or delayed several hours after exposure. This increased sensitivity can persist for weeks and in severe cases for several years.**

Carcinogenicity: **There is no data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.**

Reproductive Toxicity: **There is no data available to indicate any components present at greater than 0.1% may present reproductive toxicity.**

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Section XI Toxicological Information (continued)

Teratogenicity (Birth Defects): **There is no data available to indicate any components present at greater than 0.1% may cause birth defects. Available information indicates that Toluene is NOT teratogenic, but it can be toxic to the embryo and fetus and may reduce fertility. In animal tests, high inhaled doses of Toluene has caused reduced litter sizes, retarded development of the fetus, and increased incidence of nonlethal abnormalities.**

Mutagenicity: **There is no data to indicate that any component present at greater than 0.1% will alter DNA.**

Section XII Ecological Information

Environmental Data:

Although no information is available for this specific product mixture, individual components may by themselves have ecological affects.

Section XIII Disposal Considerations

This product is considered a RCRA hazardous waste due to the characteristic(s) of D001 (ignitability). Waste is subject to the land disposal restrictions in 40 CFR 268.40 and may require treatment standards. Consult state and local regulations to determine whether they are more stringent than the federal requirements.

Container contents should be completely used and containers empty prior to discarding. Container rinsate could be considered a RCRA hazardous waste and must be discarded in compliance with all applicable regulations. Larger empty containers, such as drums, should be returned to a professional drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

Section XIV Transportation Information

Shipping Name: **PAINT, 3, UN1263**

Packing Group: **II**

Section XV Regulatory Information

U.S. Federal Regulations: **ALL INGREDIENTS OF THIS PRODUCT ARE LISTED OR ARE EXCLUDED FROM LISTING ON THE U.S. TOXIC SUBSTANCES CONTROL ACT (TSCA) CHEMICAL SUBSTANCE INVENTORY. This product does contain a chemical(s) subject to the reporting requirements of SARA Title III, Section 313 (40 CFR 372). See section II.**

State Regulations: **State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65); WARNING: This product contains a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm.**

For all state regulations, please check with the appropriate state agency.

WHMIS Classification: **Not determined.**

International Regulations: **Consult the regulations of the importing country.**

Section XVI Other Information

Before using this product: **Completely read the Scofield Tech-Data Bulletin B-514 SCOFIELD Selectseal-S and the container label.**

WARRANTY

Since no control is exercised over product use, L. M. Scofield Company (Scofield) represents and warrants only that its products are of consistent quality within manufacturing tolerances. NO OTHER ORAL OR WRITTEN REPRESENTATION OR STATEMENT OF ANY KIND, EXPRESS OR IMPLIED, NOW OR HEREAFTER MADE IS AUTHORIZED OR WARRANTED BY SCOFIELD, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Liability for breach of contract, negligence, or on any other legal basis is limited to the lesser of refund or replacement of defective materials. SCOFIELD WILL NOT BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING FOR DELAYS OR LOST PROFITS. Communication of this warranty and its limitations to end users is not the responsibility of Scofield, but should be communicated by those in direct contract with the end user. Any claim regarding product defect must be received in writing within one year from the date of manufacture. No claim will be considered without such written notice or after the specified time interval. The end user shall determine the suitability of the products for the intended use and assumes all risks and liability in connection therewith.