

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name** : Solufix No 14  
**Product Use/Class** : Elastomer Adhesive  
**Revision Date** : 12/11/2004  
**Supersedes Previous Revision** : 25/02/2002

**Health Emergency Telephone** : 0800 333 444 Poison Centre  
**Transport Emergency Telephone** : (011) 331 2947 (Hazchem)

## SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

### Resin

Chemical Name	CAS No.	Wt % Less than	Exposure Guidelines					
			ACGIH		OSHA		Units	Skin
			TWA	STEL	TWA	Ceil		
Methyl Ethyl Ketone	78-93-3	40	200	300	200	N.E.	ppm	
Toluene	108-88-3	40	50	N.E.	200	300	ppm	S

### Hardener

Chemical Name	CAS No.	Wt % Less than	Exposure Guidelines					
			ACGIH		OSHA		Units	Skin
			TWA	STEL	TWA	Ceil		
Non-volatile Aromatic Isocyanate*	4151-51-37	27				N.E.		
Chlorobenzene	108-90-7	3	50				ppm	
Ethyl Acetate	141-78-6	70	400	125	100	N.E.	ppm	

\* Proprietary

N.E. = Not Established      S = Skin,      C = Ceiling

## SECTION 3 - HAZARDOUS IDENTIFICATION

**\*\*\* EMERGENCY OVERVIEW\*\*\*:** Clear to red/ purple liquid, with solvent odour. Flammable liquid and vapour. Supplied with a hardener in a small bottle which has flammable liquid and vapour. Hardener contains isocyanates. May cause allergic respiratory reaction. Vapour harmful; may affect the brain or nervous system causing dizziness, headache or nausea. Causes skin and eye irritation. Causes respiratory tract irritation.

### EFFECTS OF OVER-EXPOSURE

**Eye Contact:** Causes eye irritation.

**Skin Contact:** May cause skin sensitisation. May cause dermatitis. Causes skin irritation.

**Inhalation:** Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. May cause central nervous system depression characterised by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. Exposure to methylene chloride may cause dry, sore throat; itching and burning of the nose; nasal congestion; cough; chest tightness and wheezing. May cause respiratory sensitisation.

**Ingestion:** Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

**Chronic Hazards:** Repeated or prolonged solvent over-exposure may result in permanent central nervous system damage. Chronic skin contact may cause dermatitis.

**PRIMARY ROUTE(S) OF ENTRY:** Skin contact, inhalation, ingestion, eye contact.

## SECTION 4 - FIRST AID MEASURES

### FIRST AID

**Eye Contact:** Flush eyes immediately with large amounts of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

**Skin Contact:** Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

**Inhalation:** Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

**Ingestion:** If swallowed, do not induce vomiting. Give victim one or two glasses of water or milk. Call a physician or poison control centre immediately for further instructions. Never give anything by mouth to an unconscious person.

## SECTION 5 - FIRE FIGHTING MEASURES

### Resin

Flash Point (Setaflash closed cup)	16°C
Lower Explosive Limit	1.4%
Upper Explosive Limit	13,8%
Autoignition Temperature	N.D.
OSHA Flammability Classification	Flammable Liquid – Class IB
Extinguishing Media	CO <sub>2</sub> Dry Chemical Foam Water Fog

### Hardener

Flash Point (Setaflash closed cup)	-5°C
Lower Explosive Limit	2.1%
Upper Explosive Limit	11.5%
Autoignition Temperature	460°C
OSHA Flammability Classification	Flammable Liquid - Class IB
Extinguishing Media	CO <sub>2</sub> Dry Chemical Foam Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Resin and Hardener contain flammable liquid and vapour. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flame and other sources of ignition. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool.

**SPECIAL FIREFIGHTING PROCEDURES:** Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). Water spray may be ineffective. If water is used, fog nozzles are preferable. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Keep non-essential personnel a safe distance away from the spill area. Remove all sources of ignition (flame, hot surfaces, and electrical, static or frictional sparks. Avoid breathing vapours. Use self-contained breathing equipment. Notify appropriate authorities if necessary. Contain and remove with inert absorbent material. Avoid contact. Before attempting clean-up, refer to hazard caution information in other sections of the MSDS form. Do not empty into drains.

## SECTION 7 - HANDLING AND STORAGE

**HANDLING:** Keep closure tight and container upright to prevent leakage. Protect hardener from moisture. Ground and bond containers when transferring material. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapour or spray mists. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation. Because empty containers may retain product residue and flammable vapours, keep away from heat, sparks and flame; do not cut, puncture or weld on or near empty container. Do not smoke where this product is used or stored.

**STORAGE:** Do not store or use near heat, sparks, or open flame. Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements. Store only in well-ventilated areas. Do not puncture, drag or slide container. Keep container closed when not in use.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits. Caution: Solvent vapours are heavier than air and collect in lower levels of the work area. Sufficient ventilation (using explosion-proof equipment) should be provided to prevent flammable vapour-air mixtures from accumulating.

**RESPIRATORY PROTECTION :** Use a NIOSH/MSHA approved chemical/mechanical filter respirator designed to remove a combination of particulates and organic vapour if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

**SKIN PROTECTION :** Use neoprene, nitrile, or rubber gloves to prevent skin contact.

**EYE PROTECTION :** Use safety eye-wear including safety glasses with side shields and chemical goggles where splashing may occur.

**OTHER PROTECTIVE EQUIPMENT :** Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before re-use.

**HYGIENIC PRACTICES :** Wash hands thoroughly before eating, smoking or using toilet facility. Do not smoke in any chemical handling or storage area. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES****Resin**

Boiling Range	80 – 120°C
Appearance	Clear to Light Grey
Physical State	Liquid
Odour	Solvent
Solubility in H <sub>2</sub> O	Insoluble
Freeze Point	N.D.
Volatile by Weight	82.0%
Volatile by Volume	87.8%
Vapour Pressure	N.D.
Coefficient of Water/Oil Distribution	N.D.
Vapour Density	Is heavier than air
Odour Threshold	N.D.
Evaporation Rate	Is slower than Ether
Specific Gravity	0.91 g/cm <sup>3</sup>
pH	N.A.

**Hardener**

Boiling Range	77°C
Appearance	Yellow to Brown
Physical State	Liquid
Odour	Esterlike
Solubility in H <sub>2</sub> O	Reacts with water
Freeze Point	N.D.
Volatile by Weight	73.0%
Volatile by Volume	77.0%
Vapour Pressure	97 hPa at 20°C
Coefficient of Water/Oil Distribution	N.D.
Vapour Density	Is heavier than air
Odour Threshold	N.D.
Evaporation Rate	Is slower than Ether
Specific Gravity	1.00 g/cm <sup>3</sup>
pH	N.A.

(See Section 16 for abbreviation of legend).

## SECTION 10 - STABILITY AND REACTIVITY

**C**ONDITIONS TO AVOID : High temperatures. Sources of ignition.

**I**NCOMPATIBILITY : Strong oxidizers, acids, bases, water.

**H**AZARDOUS DECOMPOSITION PRODUCTS : No hazardous decomposition when stored and handled correctly. Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride or phosgene may be products of thermal decomposition. No decomposition below initial boiling point.

**H**AZARDOUS REACTIONS : Hardener gives exothermic reaction with amines, alcohols, acids and alkalis. Reacts with water forming carbon dioxide. Closed containers may rupture owing to increase of pressure.

**H**AZARDOUS POLYMERIZATION : Will not occur under normal conditions.

**S**TABILITY : This product is stable under normal storage conditions.

## SECTION 11 - TOXICOLOGICAL PROPERTIES

No product toxicological information is available.

## SECTION 12 - ECOLOGICAL INFORMATION

No information.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**D**ISPOSAL METHOD : Disposal should be carried out in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

## SECTION 14 - TRANSPORTATION INFORMATION

### Resin

DOT Proper Shipping Name	Adhesive
DOT Hazard Class	3
DOT UN/NA Number	UN 1133
Emergency Response Guide Number	26
Packing Group	II

### Hardener (if shipped separately)

DOT Proper Shipping Name	Ethyl Acetate / Isocyanate Solution
DOT Hazard Class	3
DOT UN/NA Number	UN 1993
Emergency Response Guide Number	26

**SECTION 15 - REGULATORY INFORMATION**

**U.S. FEDERAL REGULATIONS : AS FOLLOWS:**

**OSHA:** Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**SARA SECTION 313 :** This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorisation Act of 1986 and 40 CFR Part 372:

Chemical Name	CAS Number	Wt % is Less than
Methyl Ethyl Ketone	79-93-3	40%
Toluene	108-88-3	40%

**TOXIC SUBSTANCES CONTROL ACT:**

**EXPORT NOTIFICATION:** This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

Chemical Name	CAS Number
Toluene	108-88-3

**INTERNATIONAL REGULATIONS: AS FOLLOWS:**

**CANADIAN WHMIS :** This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

**CANADIAN WHMIS CLASS :** No information available.

**SECTION 16 - OTHER INFORMATION**

**HMIS RATINGS :** Health : 2\*      Flammability: 3      Reactivity: 0

\* Indicates a chronic hazard; see Section 3.

**REASON FOR REVISION:** Update of Sections 2, 3 and 9.

**LEGEND:**      N.A.   -      Not Applicable      N.E.   -      Not Established  
                  N.D.   -      Not Determined.

*Information provided herein is based upon the latest available knowledge and experience. The purpose of this Material Safety Data Sheet is to describe the products in terms of their safety requirements. Inasmuch as Linatex Africa (Pty) Ltd has no control over the exact manner in which others may use this information, it does not make any express or implied warranty of merchantability, warranty with regard to the products' properties or fitness for a particular purpose concerning the effects or results of such use.*