

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Solufix No 17
Product Class/Use : Adhesive
Revision Date : 19/10/200
Supersedes Previous Revision : 23/02/1998

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

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Wt % Less Than	Exposure Guidelines					
			ACGIH		OSHA		Units	Skin
			TWA	STEL	TWA	Ceil		
Methyl isobutyl ketone	108-10-1	70	50	75	100	N.E.	ppm	
Methyl ethyl ketone	78-93-3	2.0	200	300	200	N.E.	ppm	
Xylene	1330-20-7	15	100	150	100	N.E.	ppm	
Formaldehyde	50-5000-0	1.0	0.3C	N.E.	0.75	N.E.	ppm	

N.E. - Not Established, S - Skin Designation, C - Ceiling.

SECTION 3 - HAZARDS INFORMATION

EMERGENCY OVERVIEW : Brown gell like with solvent odour. Flammable liquid and vapour. Harmful if absorbed through skin. May cause skin and eye irritation. May cause respiratory tract irritation. May be fatal if inhaled in confined spaces.

EFFECTS OF OVEREXPOSURE

Skin Contact: May be absorbed through the skin in harmful amounts. May cause skin irritation. May cause dermatitis.

Eye Contact: May cause eye 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 kidney and liver disorders.

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

Chronic Hazards: May cause liver or kidney damage. Repeated or prolonged solvent over-exposure may result in permanent central nervous system damage. May affect the gastrointestinal system. May affect the blood and blood-forming organs. IRAC and NPT have determined that there is sufficient evidence for carcinogenicity in humans. Chronic skin contact may cause dermatitis.

PRIMARY ROUTE(S) OF ENTRY: Skin contact; Skin absorption; 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

Flash Point (Setaflash Closed Cup)	16°C
Lower Explosive Limit	1.4%
Upper Explosive Limit	13.8%
Autoignition Temperature	400°C
OSHA Flammability Classification	Flammable Liquid - Class IB
Extinguishing Media	CO ₂ ; Dry Chemical; Foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS : 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 FIRE FIGHTING PROCEDURES : Wear full fire-fighting 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 and non-sparking tools. Avoid contact. Before attempting clean-up, refer to hazard caution information in other sections of the MSDS form.

SECTION 7 - HANDLING AND STORAGE

HANDLING : Keep closure tight and container upright to prevent leakage. 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 the empty container. Do not smoke where this product is used or stored. **Warning:** Application of this product within a tank or other confined space must comply with the requirements of the OSHA Permit-Required Confined Spaces Standard, 20 CFR 1910.146.

STORAGE : Do not store or use near heat, sparks or open flame. Do not store above 40°C. Refer to OSHA 20 CFR 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 recommended exposure limits. Caution: Solvent vapour 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 eyewear including safety glasses with side shields and chemical goggles where splashes may occur.

Other Protective Equipment: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.

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 - STABILITY AND REACTIVITY

Boiling Range	80°- 120°C
Appearance	Grey
Physical State	Liquid
Odour	Solvent
Solubility in H ₂ O	Insoluble
Freeze Point	N.D.
Volatile by Weight	75.1%
Volatile by Volume	86.7%
Vapour Pressure	+ - 8hPa
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	0.93 g/cm cubed
pH	N.A.

(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: High temperatures. Sources of ignition.

INCOMPATIBILITY: Strong oxidizers, acids, bases, water.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride. Phosgene.

HAZARDOUS POLYMERISATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

Acute toxicity:	Highly toxic
Skin and Eye Contact:	Drying or cracking skin
Cronic Toxicity:	Brain and nervous system damage with over exposure.
Carcinogenicity:	Yes – with over exposure
Mutagenicity:	NE
Reproductive Hazards:	NE

SECTION 12 - ECOLOGICAL INFORMATION

Aquatic Toxicity – Fish:	Yes
Aquatic Toxicity – Daphnia:	Yes
Aquatic Toxicity – Algae:	Yes
Biodegradability	NE

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be carried out in accordance with U.S. Federal (40CFR Part 261) EC and Local Environmental Control Regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

SECTION 14 - TRANSPORTATION INFORMATION

DOT Proper Shipping Name	Adhesive
DOT Hazard Class	3.2
DOT UN/NA Number	UN 1133
Emergency Response Guide Number	26
Packing Group	PGII

SECTION 15 - REGULATORY INFORMATION

EEC : This MSDS has been prepared in compliance with EEC Regulations format (91/155/EEC) using the 16 headings.

SECTION 16 - OTHER INFORMATION

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

* Indicates a chronic hazard; see Section 3.

REASON FOR REVISION: Update of Section 15; SA Occupational Health and Safety Act No. 85 of 1993.

Volatile Organic Compounds (VOCS): 700grams/litre.

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 Liatex 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.