



## SOLUFIX 14C (ADHESIVE)

Chemwatch Material Safety Data Sheet (Conforms to 91/155/EEC - 2001/58/EC)

Issue Date: 19-Nov-2006

---

### Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

---

#### PRODUCT NAME

SOLUFIX 14C (ADHESIVE)

#### SUPPLIER

Company: LINATEX EUROPE

Address:

Wilkinson House

Blackbushe Business Park

Yateley, Hampshire

GU46 6GE, England, United Kingdom

Telephone: +44 1252 743000

Fax: +44 1252 743046

#### PRODUCT USE

Adhesive.

---

### Section 2 - HAZARDS IDENTIFICATION

---

#### STATEMENT OF HAZARDOUS NATURE

**CONSIDERED A DANGEROUS SUBSTANCE ACCORDING TO DIRECTIVE 1999/45/EC AND ITS AMENDMENTS.**

#### ACUTE HEALTH EFFECTS

##### SWALLOWED

Accidental ingestion of the material may be damaging to the health of the individual. Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733). Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce considerable gastrointestinal discomfort and may be harmful or toxic if swallowed. Ingestion may result in nausea, pain and vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis. The main effects of simple aliphatic esters are narcosis and irritation and anaesthesia at higher concentrations. These effects become greater as the molecular weights and boiling points increase. Central nervous system depression, headache, drowsiness, dizziness, coma and neurobehavioral changes may also be symptomatic of overexposure. Respiratory tract involvement may produce mucous membrane irritation, dyspnea, and tachypnea, pharyngitis, bronchitis, pneumonitis and, in massive exposures, pulmonary oedema (which may be delayed). Gastrointestinal effects include nausea, vomiting, diarrhoea and abdominal cramps. Liver and kidney damage may result from massive exposures. Central nervous system (CNS) depression may include nonspecific discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.

##### EYE

Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals. Repeated or prolonged eye contact may cause inflammation

(similar to windburn) characterised by a temporary redness of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur. The liquid produces a high level of eye discomfort and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated.

### SKIN

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period.

Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. The material may accentuate any pre-existing dermatitis condition.

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.

### INHALED

Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination.

Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. Vapour is heavier than air and may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.

If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

### CHRONIC HEALTH EFFECTS

Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS].

---

### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

---

NAME	CAS RN	INT HAZ	%
cyclohexane	110-82-7	F Xn N	30-60
EC NO: 203-806-2 R CODES: R11, R38, R65, R67, R50/53			
ethyl acetate	141-78-6	F Xn	30-60
EC NO: 205-500-4 R CODES: R11, R36, R66, R67			
other non hazardous ingredients			20 ap.

toluene

108-88-  
3

F Xn

<10

EC NO: 203-625-9 R CODES: R11, R38, R48/20, R63, R65,  
R67

---

#### **Section 4 - FIRST AID MEASURES**

---

##### **SWALLOWED**

If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

Avoid giving milk or oils.

Avoid giving alcohol.

##### **EYE**

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- If pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

##### **SKIN**

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

##### **INHALED**

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

---

#### **Section 5 - FIRE FIGHTING MEASURES**

---

##### **EXTINGUISHING MEDIA**

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

##### **FIRE FIGHTING**

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).
- Fight fire from a safe distance, with adequate cover.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control the fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- Do not approach containers suspected to be hot.

- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

#### **FIRE/EXPLOSION HAZARD**

- Liquid and vapour are highly flammable.
  - Severe fire hazard when exposed to heat, flame and/or oxidisers.
  - Vapour may travel a considerable distance to source of ignition.
  - Heating may cause expansion or decomposition leading to violent rupture of containers.
  - On combustion, may emit toxic fumes of carbon monoxide (CO).
- Combustion products include: carbon dioxide (CO<sub>2</sub>), other pyrolysis products typical of burning organic material.
- Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

#### **FIRE INCOMPATIBILITY**

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

---

### **Section 6 - ACCIDENTAL RELEASE MEASURES**

---

#### **MINOR SPILLS**

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Wipe up.
- Collect residues in a flammable waste container.

#### **MAJOR SPILLS**

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse /absorb vapour.
- Contain spill with sand, earth or vermiculite.
- Use only spark-free shovels and explosion proof equipment.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

---

### **Section 7 - HANDLING AND STORAGE**

---

#### **PROCEDURE FOR HANDLING**

Contains low boiling substance:

Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.

- Check for bulging containers.
- Vent periodically

- Always release caps or seals slowly to ensure slow dissipation of vapours.
  - Avoid all personal contact, including inhalation.
  - Wear protective clothing when risk of exposure occurs.
  - Use in a well-ventilated area.
  - Prevent concentration in hollows and sumps.
  - DO NOT enter confined spaces until atmosphere has been checked.
  - Avoid smoking, naked lights, heat or ignition sources.
  - When handling, DO NOT eat, drink or smoke.
  - Vapour may ignite on pumping or pouring due to static electricity.
  - DO NOT use plastic buckets.
  - Earth and secure metal containers when dispensing or pouring product.
  - Use spark-free tools when handling.
  - Avoid contact with incompatible materials.
  - Keep containers securely sealed.
  - Avoid physical damage to containers.
  - Always wash hands with soap and water after handling.
  - Work clothes should be laundered separately.
  - Use good occupational work practice.
  - Observe manufacturer's storing and handling recommendations.
  - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
- DO NOT allow clothing wet with material to stay in contact with skin.

#### **SUITABLE CONTAINER**

- Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- Check that containers are clearly labelled and free from leaks.
- Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages
- In addition, where inner packagings are glass and contain liquids of packing group I there must be sufficient inert absorbent to absorb any spillage, unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic.

#### **STORAGE INCOMPATIBILITY**

Avoid reaction with oxidising agents.

---

### **Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

---

#### **EXPOSURE CONTROLS**

Source	Material	TWA ppm	TWA mg/m	STEL ppm	STEL mg/m
UK Workplace Exposure Limits (WELs)	cyclohexane (Cyclohexane)	100	350	1050	300
UK Workplace Exposure Limits (WELs)	ethyl acetate (Ethyl acetate)	200			400
UK Workplace Exposure Limits (WELs)	toluene (Toluene)	50	191	574	150

#### **PERSONAL PROTECTION**

##### **RESPIRATOR**

Type AX Filter of sufficient capacity

##### **EYE**

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable.

#### **HANDS/FEET**

Wear chemical protective gloves, eg. PVC.  
Wear safety footwear or safety gumboots, eg. Rubber.

#### **OTHER**

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.
- Ensure there is ready access to a safety shower.

---

### **Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

---

#### **PHYSICAL PROPERTIES**

Liquid.  
Does not mix with water.  
Floats on water.

Molecular Weight: Not Applicable	Boiling Range (C): 77
Melting Range (C): Not Available	Specific Gravity (water=1): 0.9
Solubility in water (g/L): Immiscible	pH (as supplied): Not Available
pH (1% solution): Not Available	Vapour Pressure (kPa): Not Available
Volatile Component (%vol): Not Available	Evaporation Rate: Not Available
Relative Vapour Density (air=1): Not Available	Flash Point (C): -17 (TCC)
Lower Explosive Limit (%): Not Available	Upper Explosive Limit (%): Not Available
Autoignition Temp (C): Not Available	Decomposition Temp (C): Not Available
State: Liquid	Viscosity: Not Available

#### **APPEARANCE**

Red viscous highly flammable liquid with a characteristic odour; does not mix with water.

---

### **Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION**

---

#### **CONDITIONS CONTRIBUTING TO INSTABILITY**

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

---

### **Section 11 - TOXICOLOGICAL INFORMATION**

---

MATERIAL	CARCINOGEN	MUTAGEN	REPROTOXIN	SENSITISER
SKIN				

toluene	IARC:3	TRGS905:-	ILOEI
	TRGS905:-	TRGS905:	

---

### **Section 12 - ECOLOGICAL INFORMATION**

---

Marine Pollutant:Not Determined

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
This material and its container must be disposed of as hazardous waste.

Avoid release to the environment.

Refer to special instructions/ safety data sheets.

---

### Section 13 - DISPOSAL CONSIDERATIONS

---

· Recycle where possible

Otherwise ensure that:

- licenced contractors dispose of the product and its container.
- disposal occurs at a licenced facility.

According to the European Waste Catalogue, Waste Codes are not product specific but application specific. Waste Codes should be assigned by the User based on the application in which the product is used.

---

### Section 14 - TRANSPORTATION INFORMATION

---



Labels Required: FLAMMABLE LIQUID  
HAZCHEM: 3[Y]E

#### Land transport ADR/RID (cross-border):

ADR/RID Class:	3	Hazard identification (Kemler):	33
UN Number:	1133	Packing Group:	II
Classification Code:	F1	Hazard Label:	3

#### Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1133	Packing Group:	II
ERG Code:	3L		

#### Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1133	Packing Group:	II
EMS Number:	F-E,S-D	Marine Pollutant:	Not Determined

Shipping name:ADHESIVES containing flammable liquid  
ADHESIVES

---

### Section 15 - REGULATORY INFORMATION

---

#### ANNEX 1

Ingredient Annex 1 67/548/EEC  
cyclohexane 601-017-00-1  
ethyl acetate 607-022-00-5  
toluene 601-021-00-3

## RISK

Risk Codes	Risk Phrases
R11	Highly flammable.
R36/38	Irritating to eyes and skin.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63(3)	Possible risk of harm to the unborn child.
R65	HARMFUL-May cause lung damage if swallowed.
R67	Vapours may cause drowsiness and dizziness.

## SAFETY

Safety Codes	Safety Phrases
S16	Keep away from sources of ignition. No smoking.
S09	Keep container in a well ventilated place.
S53	Avoid exposure - obtain special instructions before use.
S401	To clean the floor and all objects contaminated by this material, use water and detergent.
S07	Keep container tightly closed.
S35	This material and its container must be disposed of in a safe way.
S13	Keep away from food, drink and animal feeding stuffs.
S27	Take off immediately all contaminated clothing.
S26	In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Centre.
S46	If swallowed, IMMEDIATELY contact Doctor or Poisons Centre. (show this container or label).
S57	Use appropriate container to avoid environmental contamination.
S61	Avoid release to the environment. Refer to special instructions/Safety data sheets.
S60	This material and its container must be disposed of as hazardous waste.

## ANNEX 2: Indications of Danger

F	Highly Flammable
N	Dangerous for the environment
Xn	Harmful

## REGULATIONS

Cyclohexane (CAS: 110-82-7) is found on the following regulatory lists;  
European Customs Inventory of Chemical Substances (English)  
European Inventory of Existing Commercial Substances - EINECS  
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk  
UK Workplace Exposure Limits (WELs)

Ethyl acetate (CAS: 141-78-6) is found on the following regulatory lists;  
European Inventory of Existing Commercial Substances - EINECS  
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk  
UK Workplace Exposure Limits (WELs)

Toluene (CAS: 108-88-3) is found on the following regulatory lists;  
European Inventory of Existing Commercial Substances - EINECS  
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk

This safety data sheet is in compliance with the following EU legislation and its adaptations – as far as

applicable - : 67/548/EEC, 1999/45/EC, 76/769/EEC,98/24/EC, 92/85/EEC, 94/33/EC, 91/689/EEC, 1999/13/EC,

as well as the following British legislation:

- The Control of Substances Hazardous to Health Regulations (COSHH) 2002
- COSHH Essentials
- The Management of Health and Safety at Work Regulations 1999

---

## **Section 16 - OTHER INFORMATION**

---

### **RISK**

#### **Explanation of Risk Codes used in the Ingredient Table**

Risk Codes	Risk Phrases
R11	Highly flammable.
R36	Irritating to eyes.
R38	Irritating to skin.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.
R65	HARMFUL-May cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness and cracking.
R67	Vapours may cause drowsiness and dizziness.

#### **ANNEX 2: Indications of Danger**

F	Highly Flammable
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful