

SAFETY DATA SHEET
According to Directive 2001/58/EC

ALKOR[®] PLUS 81040

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the substance/preparation

Product name : ALKOR[®] PLUS 81040

1.2. Use of the Substance/Preparation

Recommended use : - Adhesive, binding agents

1.3. Company/Undertaking Identification

Address : **RENOLIT Belgium N.V.**
INDUSTRIEPARK DE BRUWAAN 9
B- 9700 OUDENAARDE

Telephone : 3255339711

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1.4. Emergency telephone number

Telephone : +44(0)208 762 8322 [CareChem 24] (Europe)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Methyl ethyl ketone

CAS-No. : 78-93-3
Annex-1 : 606-002-00-3
EINECS-No. : 201-159-0
Symbol(s) : F, Xi
R-phrases) : R11, R36, R66, R67
Concentration : ca. 38.00 %

Ethyle acetate

CAS-No. : 141-78-6
Annex-1 : 607-022-00-5
EINECS-No. : 205-500-4
Symbol(s) : F, Xi
R-phrases) : R11, R36, R66, R67
Concentration : ca. 26.00 %

Toluene

CAS-No. : 108-88-3
Annex-1 : 601-021-00-3
EINECS-No. : 203-625-9
Symbol(s) : F, Xn
R-phrases) : R11, R38, R48/20, R63, R65, R67
Concentration : ca. 8.00 %



3. HAZARDS IDENTIFICATION

Appearance	:	viscous liquid
Colour	:	white
Odour	:	characteristic

- The preparation is classified as dangerous in accordance with Directive 1999/45/EC.
- Highly flammable.
- Irritating to eyes and respiratory system.
- May cause sensitization by skin contact.
- Possible risk of harm to the unborn child.
- Harmful: may cause lung damage if swallowed.
- Repeated exposure may cause skin dryness or cracking.
- Vapours may cause drowsiness and dizziness.

4. FIRST AID MEASURES

4.1. Inhalation

- Remove the subject from the contaminated area as soon as possible; transport him/her lying down, with the head higher than the body, to a quiet, uncontaminated and well-ventilated location..
- Oxygen or pulmonary resuscitation if necessary.
- Consult with a physician in case of respiratory and nervous symptoms.

4.2. Eye contact

- Flush eyes with running water for 15 minutes, while keeping the eyelids wide open.
- Consult with an ophthalmologist in all cases.

4.3. Skin contact

- Wash the affected skin with soap and water.
- Clean clothing.
- Consult with a physician in case of persistent pain or redness.

4.4. Ingestion

The following actions are recommended :

- Contact a physician for advice.

If victim is conscious:

- Give to drink fresh water added with activated charcoal.
- Do not induce vomiting.
- If the subject presents nervous, respiratory or cardiovascular disorders: administer oxygen.

If victim is unconscious but breathing:

- Classical resuscitation measures.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

- Powder
- Foam, AFFF.
- CO2
- Water spray

5.2. Extinguishing media which must not be used for safety reasons

- Jet of water

5.3. Special exposure hazards in a fire

- Highly flammable (see section 9).



- Formation of dangerous gas/vapours in case of decomposition (see section 10).
- Gas/vapours are heavier than air and so may travel along the ground; remote ignition possible.
- Gas/vapours explosion possible in presence of air.

5.4. Special protective equipment for fire-fighters

- Evacuate all non-essential personnel.
- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- In all cases wear self-contained breathing apparatus.
- When intervention in close proximity wear acid resistant over suit.
- Protect intervention team with water spray when approaching the fire.
- After intervention, proceed to clean the equipment (take a shower, remove clothing carefully, clean and check).
- Fire fighters must wear fire resistant personnel protective equipment.

5.5. Other information

- If safe to do so, remove the exposed containers, or cool with large quantities of water.
- Approach from upwind.
- Avoid propagating the fire, when directing the extinguishing means in a jet on the surface of the burning liquid.
- Avoid propagating the fire, by flotation of the product (density < 1).
- After the fire, proceed rapidly to clean the surfaces exposed to the fumes in order to limit the damage to the equipment.
- As for any fire, ventilate and clean the rooms before re-entry.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

- Follow the protective measures given in section 5.
- Follow the protective measures given in section 8.
- If safe to do so, without over exposing anyone, try to stop the leak.
- Eliminate all sources of ignition, and do not generate flames or sparks.
- Keep away materials and products which are incompatible with the product (see section 10).
- Approach from upwind.
- Protect intervention team with water spray.
- Isolate the area.
- Ventilate the premises.
- Disperse gas/vapours with water spray.
- Cover the spreading liquid with foam in order to slow down the evaporation.

6.2. Environmental precautions

- Do not discharge into the environment (sewers, rivers, soils, ...).
- Immediately notify the appropriate authorities in case of discharge.

6.3. Methods for cleaning up

- If possible, dam large quantities of liquid with sand or earth.
- Prevent the product from entering sewers or confined places.
- Remove the product with an inert absorbent (sand, kieselguhr, vermiculite, ...).
- Place everything into a closed, labelled container compatible with the product.
- Store the product in a safe and isolated place.
- For disposal methods, refer to section 13.
- Clean the area with large quantities of water.

7. HANDLING AND STORAGE

7.1. Handling

- Carry out industrial operations in closed piping circuits and equipment.



- Handle small quantities under a lab hood.
- Operate in a well-ventilated area.
- Do not use tools that produce sparks.
- Prevent any product decomposition from contacting hot spots.
- Keep away from ignition and heat sources.
- Do not use compressed air for transferring or handling the product.
- Keep away from reactive products (see section 10).

7.2. Storage

- In a ventilated, cool area.
- Keep away from ignition and heat sources.
- Under inert gas.
- Keep away from reactive products (see section 10).
- Containment bund around storage containers and transfer installation.
- For bulk storage, consult the producer.

7.3. Specific use(s)

- For any particular use, please contact the supplier.

7.4. Packaging material

- Steel
- Stainless steel.
- Aluminum

7.5. Other information

- No open flames or sparks, no smoking.
- Provide electrical equipment safe for hazardous locations.
- Grounded equipment.
- Prevent electrostatic discharges.
- Warn people about the dangers of the product.
- Follow the protective measures given in section 8.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure Limit Values

Methyl ethyl ketone

- US. ACGIH Threshold Limit Values 2005
TWA = 200 ppm
- US. ACGIH Threshold Limit Values 2005
STEL = 300 ppm
- WEL (UK) 2005
TWA = 200 ppm
TWA = 600 mg/m³
Remarks: Skin
- WEL (UK) 2005
STEL = 300 ppm
STEL = 899 mg/m³
Remarks: Skin

Ethyle acetate

- US. ACGIH Threshold Limit Values 2005
TWA = 400 ppm
- WEL (UK) 2005
TWA = 200 ppm
- WEL (UK) 2005
STEL = 400 ppm

Toluene



- US. ACGIH Threshold Limit Values 2005
TWA = 50 ppm
Remarks: Skin
- WEL (UK) 2005
TWA = 50 ppm
TWA = 191 mg/m³
Remarks: Skin
- WEL (UK) 2005
STEL = 150 ppm
STEL = 574 mg/m³
Remarks: Skin

8.2. Exposure controls

- Premises ventilation.
- Provide local ventilation suitable for the product decomposition risk (see section 10).
- Maintain employee exposures to levels below the applicable exposure limits.

8.2.1. Occupational exposure controls

8.2.1.1. *Respiratory protection*

- In case of emissions, face mask with type A cartridge.
- Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.
- Use only respiratory protection that conforms to international/ national standards.

8.2.1.2. *Hand protection*

- Protective gloves - chemical resistant:
- Recommended materials : 4H ®

8.2.1.3. *Eye protection*

- Wear protective goggles for all industrial operations.
- If risk of splashing, chemical proof goggles/face shield.

8.2.1.4. *Skin and body protection*

- Protective clothing suitable for the handling of chemicals.
- Apron/boots of butyl rubber if risk of splashing.

8.2.1.5. *Hygiene measures*

- Shower and eye wash stations.
- Consult the industrial hygienist or the safety manager for the selection of personal protective equipment suitable for the working conditions.

8.2.2. Environmental exposure controls

- Respect local/federal and national regulations for aqueous emissions (see section 15).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General Information (appearance, odour)

Appearance	: viscous liquid
Colour	: white
Odour	: characteristic

9.2. Important Health Safety and Environmental Information

pH	: <i>Remarks: No data</i>
Boiling point/range	: 75 - 110 °C
Flash point	: -4 °C



Flammability (solid, gas)	: <u>Upper explosion limit:</u> 10.2 %(V) <u>Lower explosion limit:</u> 1.9 %(V)
Explosive properties	: <i>Remarks:</i> Explosion possible with gas/vapour and air mixtures.
Vapour pressure	: 103.3 hPa
Relative density / Density	: 0.9
Solubility	: Insoluble in : Water
Partition coefficient (n-octanol/water)	: <i>Remarks:</i> No data
Viscosity	: ca. 2,500 mPa.s
Vapour density	: 2.4

9.3. Other data

Freezing point	: <i>Remarks:</i> No data
Autoinflammability	: 480 - 522 °C

10. STABILITY AND REACTIVITY

10.1. Stability

- The vapor is heavier than air, disperses at ground level.

10.2. Conditions to avoid

- Heat/Sources of heat
- Naked flames, sparks.

10.3. Materials to avoid

- Oxidizing agents
- Strong bases
- Strong acids
- Alkaline metals
- Salts of metals
- Halogenous
- Certain plastic materials.

10.4. Hazardous decomposition products

- acetic acid
- Carbon monoxide

11. TOXICOLOGICAL INFORMATION

11.1 Toxicological data

Possible hazards (summary)

- No specific data
- By analogy with the tested compound
- Irritant effect for the eyes and respiratory tract
- Risk of sensitizing effect
- Risk of the central nervous system effect



11.2. Health effects

Main effects

- Irritating to mucous membrane and eyes.
- Risk of central nervous system effects.
- Risk of skin sensitization.

Inhalation

- Nose and throat irritation.
- At high concentrations, headaches and nausea.
- At high concentrations, dizziness and drowsiness.
- At high concentrations, risk of narcosis.

Eye contact

- Moderate irritation.
- Risk of temporary eye lesions.

Skin contact

- The product can be absorbed by intact skin.
- In case of prolonged contact: slight irritation.
- In case of repeated contact : dry and chapped skin, risk of chronic dermatitis.
- In case of repeated contact: risk of allergic dermatitis.

Ingestion

- Irritation of the mouth and throat.
- Nausea, vomiting and diarrhea.
- By ingestion of large quantities: dizziness and drowsiness.
- By ingestion of large quantities: risk of narcosis.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity effects

Acute toxicity

- Remarks: no data

Chronic toxicity

- Remarks: no data

12.2. Mobility

- Remarks: no data

12.3. Persistence and degradability

Abiotic degradation

- Result: no data

Biodegradation

- Remarks: no data

12.4. Bioaccumulative potential

- Result: no data

12.5. Other adverse effects

- No data.

12.6. Possible hazards (summary)

- No specific data.

13. DISPOSAL CONSIDERATIONS

13.1. Waste from residues / unused products

- Dispose in compliance with local/federal and national regulations.
- Send the product to an authorized hazardous waste incinerator.



13.2. Packaging treatment

- Rinse the empty containers with a low volatility hydrocarbon and treat the effluent in the same way as waste.
- Or
- Dispose of the containers by dispatching them to an approved incineration facility for hazardous waste.
- Containers that cannot be cleaned must be treated as waste.

14. TRANSPORT INFORMATION

UN-No	1133
IATA-DGR	
Class	3
Packing group	II
ICAO-Labels	FLAMMABLE LIQUID
Proper shipping name: ADHESIVES	
IMDG	
Class	3
Packing group	II
IMO-Labels	Flammable Liquids
HI/UN No.	1133
EmS:	F-E, S-D
Proper shipping name: ADHESIVES	
ADR	
Class	3
Packing group	II
ADR/RID-Labels	3
HI/UN No.	33/1133
Special Provision 640A	640D
Proper shipping name: ADHESIVES	
RID	
Class	3
Packing group	II
ADR/RID-Labels	3
HI/UN No.	33/1133
Special Provision 640A	640D
Proper shipping name: ADHESIVES	

15. REGULATORY INFORMATION

15.1. EC Label

- The product is classified and labelled in accordance with Directive 1999/45/EC.

Symbol(s)	F Xi	Highly flammable Irritant
R-phrase(s)	R11 R36 R43 R63 R65	Highly flammable. Irritating to eyes. May cause sensitization by skin contact. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed.



	R66	Repeated exposure may cause skin dryness or cracking.
	R67	Vapours may cause drowsiness and dizziness.
S-phrase(s)	S16	Keep away from sources of ignition - No smoking.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S33	Take precautionary measures against static discharges.
	S46	If swallowed, seek medical advice immediately and show this container or label.
	S60	This material and its container must be disposed of as hazardous waste.

16. OTHER INFORMATION

16.1. Administrative information

- Update
This data sheet contains changes from the previous version in section(s): 2, 3, 15, 16
- Distribute new edition to clients

16.2. Text of R phrases mentioned in Section 2

- 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.
- R63 : Possible risk of harm to the unborn child.
- R65 : Harmful: may cause lung damage if swallowed.
- R66 : Repeated exposure may cause skin dryness or cracking.
- R67 : Vapours may cause drowsiness and dizziness.

This MSDS is intended for only the selected countries to which it is applicable. For example, this MSDS is not intended for use nor distribution within North America. You should contact RENOLIT America company representative for the official North America MSDS.

The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product which conforms to the specifications, unless otherwise stated. In this case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and the environment.

