



SAFETY DATA SHEET

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH) & 1272/2008 (CLP)

Issuing date 10-Feb-2011

Revision Date 03-Apr-2012

Version 002

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name RENOLIT ALKORPLUS 81068

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Adhesives, Industrial and Professional

Uses advised against No information available

1.3 Details of the supplier of the safety data sheet

Company Information RENOLIT Belgium NV
Industriepark De Bruwaan 9
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For further information, please contact:

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1.4 Emergency telephone number

Emergency telephone +44 (0)1235 239 670 (24 hours, 7 days)

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2; H315
Eye Irrit. 2; H319
Resp. Sens. 1; H334
Skin Sens. 1; H317
Carc. 2; H351
STOT SE 3; H335; STOT SE 3; H336
STOT RE 2; H373
Aquatic Chronic 2; H411
Flam. Liq. 2; H225

RENOLIT ALKORPLUS 81068

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases mentioned in this Section, see Section 16

F - Highly flammable

Xn - Harmful

N - Dangerous for the environment

R11; R36/37/38; Carc. Cat. 3; R40; R42/43; R48/20; R51/53; R67

2.2 Label elements



Signal Word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H351 - Suspected of causing cancer

H373 - May cause damage to organs through prolonged or repeated exposure if inhaled

H411 - Toxic to aquatic life with long lasting effects

EUH204 - Contains isocyanates. May produce an allergic reaction

Precautionary statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P281 - Use personal protective equipment as required

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower

P304 + P341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

2.3 Other information

Vapors may form explosive mixture with air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures**

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
tris(nonylphenyl) phosphite	247-759-6	26523-78-4	<1	Xi; R38 R43 N; R50/53	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Acute 1 (H400) Aquatic Chronic 1 (H410)	no data available
Methyl acetate	201-185-2	79-20-9	1-10	F; R11 Xi; R36 R66 R67	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225) GHS02,GHS07 (Dgr)	no data available
Methylene bisphenyl isocyanate (MDI)	202-966-0	101-68-8	1-10	Xn; R20-48/20 Xi; R36/37/38 Carc.Cat.3; R40 R42/43	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Carc. 2 (H351) STOT SE 3 (H335) STOT RE 2 (H373) GHS08,GHS07 (Dgr)	01-2119457014-47
Cyclohexane	203-806-2	110-82-7	1-10	F; R11 Xi; R38 N; R50-53 Xn; R65 R67	Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Flam. Liq. 2 (H225) GHS02,GHS08,GHS07,GH S09 (Dgr)	no data available
Ethylacetate	205-500-4	141-78-6	1-10	F; R11 Xi; R36 R66 R67	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225) GHS02,GHS07 (Dgr)	no data available

For the full text of R-phrases and H-Statements see Section 16

SECTION 4. FIRST AID MEASURES**4.1 Description of first-aid measures**

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms develop obtain medical attention.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms develop obtain medical attention. Wash contaminated clothing before reuse.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water and give 100 - 200 ml of water to drink. If symptoms develop obtain medical attention.
Inhalation	Immediate medical attention is required. Remove patient from exposure, keep warm and at rest. Administer oxygen if breathing is difficult and you are trained.

4.2 Most important symptoms and effects, both acute and delayed

Main Symptoms	Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.
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4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Water spray, dry chemical, carbon dioxide (CO₂), or foam

Extinguishing media which shall not be used for safety reasons

None.

5.2 Special hazards arising from the substance or mixture

Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). May give off toxic fumes in fire: Carbon monoxide (CO), Carbon dioxide (CO₂), Acetic acid, Nitrogen oxides (NO_x), Hydrogen cyanide.

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear. Cool containers / tanks with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Ensure adequate ventilation. Take precautionary measures against static discharges. Use only non-sparking tools. Avoid contact with the skin and the eyes. Avoid breathing vapors or mists. Wear protective gloves/clothing and eye/face protection.

6.2 Environmental precautions

Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Sweep up carefully with non-sparking tools. Wash spill area with soapy water. Contaminated adsorbent must be removed in sealed, plastic lined drums and disposed of via an authorised waste disposal contractor.

6.4 Reference to other sections

See Section 8. See also section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. Vapour may create explosive atmosphere. Ensure adequate ventilation. Take precautionary measures against static discharges. Avoid breathing vapors or mists. Avoid contact with skin and eyes. Wear personal protective equipment. For personal protection see section 8.

Do not eat, drink or smoke during work. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Keep away from direct sunlight. Keep only in the original container/package in a cool well-ventilated place.

7.3 Specific end uses

Contact adhesives, Industrial and Professional.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Chemical Name	Methyl acetate 79-20-9
The United Kingdom	STEL: 250 ppm STEL: 770 mg/m ³ TWA: 200 ppm TWA: 616 mg/m ³
France	VME: 200 ppm VME: 610 mg/m ³ VLCT: 250 ppm VLCT: 760 mg/m ³
Spain	VLA-EC: 250 ppm VLA-EC: 770 mg/m ³ VLA-ED: 200 ppm VLA-ED: 616 mg/m ³
Germany	MAK: 100 ppm MAK: 310 mg/m ³ Ceiling / Peak: 400 ppm Ceiling / Peak: 1240 mg/m ³ TWA: 200 ppm TWA: 610 mg/m ³
Portugal	STEL: 250 ppm TWA: 200 ppm
Finland	TWA: 200 ppm TWA: 610 mg/m ³ STEL: 250 ppm STEL: 770 mg/m ³
Denmark	TWA: 150 ppm TWA: 455 mg/m ³
Austria	STEL 400 ppm STEL 1220 mg/m ³ MAK: 200 ppm MAK: 610 mg/m ³
Switzerland	STEL: 400 ppm STEL: 1240 mg/m ³ MAK: 100 ppm MAK: 310 mg/m ³
Poland	NDSch: 600 mg/m ³ NDS: 250 mg/m ³
Norway	TWA: 100 ppm TWA: 305 mg/m ³ STEL: 150 ppm STEL: 381.25 mg/m ³
Ireland	TWA: 200 ppm TWA: 610 mg/m ³ STEL: 250 ppm STEL: 760 mg/m ³
Chemical Name	Methylene bisphenyl isocyanate (MDI) 101-68-8
The United Kingdom	TWA: 0.02 mg/m ³
France	VME: 0.01 ppm VME: 0.1 mg/m ³ VLCT: 0.02 ppm VLCT: 0.2 mg/m ³
Spain	VLA-ED: 0.005 ppm VLA-ED: 0.052 mg/m ³
Germany	MAK: 0.05 mg/m ³ Ceiling / Peak: 0.05 mg/m ³ Skin TWA: 0.05 mg/m ³
Portugal	TWA: 0.005 ppm
Finland	STEL: 0.035 mg/m ³
Denmark	TWA: 0.005 ppm TWA: 0.05 mg/m ³

Austria	STEL 0.01 ppm STEL 0.1 mg/m ³ MAK: 0.005 ppm MAK: 0.05 mg/m ³
Switzerland	Skin STEL: 0.02 mg/m ³ MAK: 0.02 mg/m ³
Poland	NDSP: 0.2 mg/m ³ NDSch: 0.09 mg/m ³ NDS: 0.03 mg/m ³
Norway	TWA: 0.005 ppm TWA: 0.05 mg/m ³ STEL: 0.015 ppm STEL: 0.15 mg/m ³
Ireland	TWA: 0.02 mg/m ³ STEL: 0.07 mg/m ³
Chemical Name	Cyclohexane 110-82-7
European Union	TWA: 200 ppm TWA: 700 mg/m ³
The United Kingdom	STEL: 300 ppm STEL: 1050 mg/m ³ TWA: 100 ppm TWA: 350 mg/m ³
France	VME: 200 ppm VME: 700 mg/m ³ VLCT: 375 ppm VLCT: 1300 mg/m ³
Spain	VLA-ED: 200 ppm VLA-ED: 700 mg/m ³
Germany	MAK: 200 ppm MAK: 700 mg/m ³ Ceiling / Peak: 800 ppm Ceiling / Peak: 2800 mg/m ³ TWA: 200 ppm TWA: 700 mg/m ³
Italy	TWA: 100 ppm TWA: 350 mg/m ³
Portugal	TWA: 100 ppm
The Netherlands	STEL: 1400 mg/m ³ TWA: 700 mg/m ³
Finland	TWA: 100 ppm TWA: 350 mg/m ³ STEL: 250 ppm STEL: 875 mg/m ³
Denmark	TWA: 50 ppm TWA: 172 mg/m ³
Austria	STEL 800 ppm STEL 2800 mg/m ³ MAK: 200 ppm MAK: 700 mg/m ³
Switzerland	STEL: 800 ppm STEL: 2800 mg/m ³ MAK: 200 ppm MAK: 700 mg/m ³
Poland	NDSch: 1000 mg/m ³ NDS: 300 mg/m ³
Norway	TWA: 150 ppm TWA: 525 mg/m ³ STEL: 187.5 ppm STEL: 656.25 mg/m ³
Ireland	TWA: 200 ppm TWA: 700 mg/m ³
Chemical Name	Ethylacetate 141-78-6
The United Kingdom	STEL: 400 ppm TWA: 200 ppm
France	VME: 400 ppm VME: 1400 mg/m ³
Spain	VLA-ED: 400 ppm VLA-ED: 1460 mg/m ³
Germany	MAK: 400 ppm MAK: 1500 mg/m ³ Ceiling / Peak: 800 ppm Ceiling / Peak: 3000 mg/m ³ TWA: 400 ppm TWA: 1500 mg/m ³
Portugal	TWA: 400 ppm
Finland	TWA: 300 ppm TWA: 1100 mg/m ³ STEL: 500 ppm STEL: 1800 mg/m ³
Denmark	TWA: 150 ppm TWA: 540 mg/m ³
Austria	STEL 600 ppm STEL 2100 mg/m ³ MAK: 300 ppm MAK: 1050 mg/m ³
Switzerland	STEL: 800 ppm STEL: 2800 mg/m ³ MAK: 400 ppm MAK: 1400 mg/m ³
Poland	NDSch: 600 mg/m ³ NDS: 200 mg/m ³
Norway	TWA: 150 ppm TWA: 550 mg/m ³ STEL: 187.5 ppm STEL: 687.5 mg/m ³
Ireland	TWA: 200 ppm STEL: 400 ppm

Derived No Effect Level (DNEL) No information available
 Predicted No Effect Concentration (PNEC) No information available

8.2 Exposure controls

Appropriate engineering controls	Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded.
Personal protective equipment	
Eye Protection	Tightly fitting safety goggles. (EN 166)
Hand Protection	Protective gloves. (EN 374)
Skin and body protection	Apron or other light protective clothing, boots and plastic or rubber gloves.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment. (BS EN 14387:2004+A1)
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.
Environmental Exposure Controls	Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state	liquid
Odor	Characteristic
Color	yellow
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
pH		No information available
Melting/freezing point		No information available
Freezing Point		No information available
Boiling point/boiling range	57 °C	
Flash Point	-7 °C	
Evaporation rate		No information available
Flammability (solid, gas)		Not applicable
Flammability Limits in Air		No information available
upper flammability limit		
lower flammability limit		
Vapor pressure		No information available
Vapor density	> 1	(Air = 1.0)
Relative density	1	
Water solubility		Immiscible
Solubility in other solvents		No information available
Partition coefficient: n-octanol/water		No information available
Autoignition temperature	260 °C	
Decomposition temperature		No information available
Viscosity, kinematic		No information available
Viscosity, dynamic	6000	mPa s
Explosive properties	May form explosive mixtures with air.	
Oxidizing Properties	No information available	

9.2 Other information

Softening point	No information available
Molecular Weight	No information available
VOC Content(%)	No information available
Density	No information available
Bulk Density	No information available

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under normal conditions. May form explosive peroxides.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to Avoid

Keep away from open flames, hot surfaces and sources of ignition

10.5 Incompatible Materials

Oxidizing agents. Acids. Alcohols. Alkalis. Alkali metals.

10.6 Hazardous Decomposition Products

May give off toxic fumes in fire: Carbon monoxide (CO), Carbon dioxide (CO₂), Acetic acid, Nitrogen oxides (NO_x), Hydrogen cyanide.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
tris(nonylphenyl) phosphite	10000 mg/kg (Rat)		
Methyl acetate	>5000 mg/kg (Rat)	>2000 mg/kg (Rat) >5000 mg/kg (Rabbit)	16000 ppm (Rat) 4 h
Methylene bisphenyl isocyanate (MDI)	2000 mg/kg (Rat)	9,400 mg/kg (Rabbit)	> 2.24 mg/l (Rat) 1h
Cyclohexane	>5000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	13.9 mg/L (Rat) 4 h
Ethylacetate	5620 mg/kg (Rat)	>18000 mg/kg (Rabbit) >20 mL/kg (Rabbit)	

Skin corrosion/irritation Irritating to skin.

Serious Damage/Eye Irritation Irritating to eyes.

Respiratory or Skin Sensitisation May cause sensitization by inhalation and skin contact.

Mutagenicity Not Classified

Carcinogenicity Suspected of causing cancer.

Chemical Name	European Union	IARC
Methylene bisphenyl isocyanate (MDI)	Cat. 3	Group 3

Reproductive toxicity Not Classified

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STOT - Single exposure	May cause respiratory irritation. May cause drowsiness or dizziness.
STOT - Repeated exposure	May cause damage to organs through prolonged or repeated exposure: Inhalation.
Aspiration hazard	Not Classified
Other information	No information available.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
tris(nonylphenyl) phosphite		LC50: 10 mg/L 96 h static (Brachydanio rerio)	0.42: 48 h Daphnia magna mg/L EC50
Methyl acetate	>120: 72 h Desmodesmus subspicatus mg/L EC50	250-350: 96 h Brachydanio rerio mg/L LC50 static 295-348: 96 h Pimephales promelas mg/L LC50 flow-through	1026.7: 48 h Daphnia magna mg/L EC50
Methylene bisphenyl isocyanate (MDI)	EC50 (Scenedesmus subspicatus)> 1,640 mg/l/72h	LC50 (Brachydanio rerio)>1,000 mg/l/96h	EC50 (Daphnia magna)> 1,000 mg/l/24h EC50 (activated sludge) > 100 mg/l/3h
Cyclohexane	>500: 72 h Desmodesmus subspicatus mg/L EC50	23.03-42.07: 96 h Pimephales promelas mg/L LC50 static 24.99-44.69: 96 h Lepomis macrochirus mg/L LC50 static 3.96-5.18: 96 h Pimephales promelas mg/L LC50 flow-through 48.87-68.76: 96 h Poecilia reticulata mg/L LC50 static	>400: 24 h Daphnia magna mg/L EC50
Ethylacetate	3300: 48 h Desmodesmus subspicatus mg/L EC50	220-250: 96 h Pimephales promelas mg/L LC50 flow-through 352-500: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 484: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	560: 48 h Daphnia magna mg/L EC50 Static

WGK Classification = 2

12.2 Persistence and degradability

Not readily biodegradable.

12.3 Bioaccumulative potential

Chemical Name	log Pow
Methyl acetate	0.18
Cyclohexane	3.44
Ethylacetate	0.6

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

No information available.

SECTION 13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Waste from residues / unused products	Do not empty into drains; dispose of this material and its container in a safe way. Dispose of as hazardous waste in compliance with local and national regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

	ADR/RID/ADN	ICAO/IATA	IMDG / IMO
14.1 UN Number	1133	1133	1133
14.2 Proper shipping name	Adhesives.	Adhesives.	Adhesives.
14.3 Transport hazard class(es)	3	3	3
14.4 Packing Group	II	II	II
14.5 Environmental Hazards	Marine pollutant	Marine pollutant	Marine pollutant
14.6 Special precautions for users		May form explosive mixtures with air.	
14.7 Transport in bulk according to MARPOL 73/78 and the IBC Code		-	

SECTION 15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

WGK Classification = 2

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. Classification according to Regulation (EC) No 1272/2008.

15.2 Chemical Safety Assessment

No information available.

SECTION 16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R11 - Highly flammable
R20 - Harmful by inhalation
R36 - Irritating to eyes
R38 - Irritating to skin
R36/37/38 - Irritating to eyes, respiratory system and skin
R40 - Limited evidence of a carcinogenic effect
R42/43 - may cause sensitisation by inhalation and skin contact
R43 - May cause sensitization by skin contact
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
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65 - Harmful: may cause lung damage if swallowed
R66 - Repeated exposure may cause skin dryness or cracking
R67 - Vapors may cause drowsiness and dizziness

Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure if inhaled
H411 - Toxic to aquatic life with long lasting effects
H304 - May be fatal if swallowed and enters airways
H332 - Harmful if inhaled
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
EUH066 - Repeated exposure may cause skin dryness or cracking
EUH204 - Contains isocyanates. May produce an allergic reaction

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.