

according to Regulation (EC) No 1907/2006

570 Renia - Primer for PUR

Revision date: 04.01.2018 Product code: 570.000 Page 1 of 12

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

570 Renia - Primer for PUR

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

Use of the substance/mixture

Hardener (Crosslinker)

Reserved for industrial and professional use.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Renia Gesellschaft mbH. Chemische Fabrik Company name:

Street: Ostmerheimer Straße 516 Place: D-51109 Köln (Cologne)

Post-office box: 910659

D-51076 Köln (Cologne)

Telephone: +49-221-630799-0 Telefax: +49-221-630799-50

Telephone: 16

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Contact person: Heinz Buchholz Dipl.Chem

e-mail: labor@renia.com Internet: www.renia.com

Responsible Department: Labor 07:30 - 16:00 Uhr +49-221-630799-0

1.4. Emergency telephone

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness.

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

ethyl acetate

Signal word: Danger

Pictograms:





Hazard statements

H225 Highly flammable liquid and vapour.



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H319 Causes serious eye irritation.H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P235 Keep cool.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use ... to extinguish.
P501 Dispose of contents/container to

Special labelling of certain mixtures

EUH204 Contains isocyanates. May produce an allergic reaction.

Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

2.3. Other hazards

In use, may form flammable/explosive vapour-air mixture. Contains isocyanates. See information supplied by the manufacturer.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Hardener (Crosslinker) Isocyanate containing product.

Hazardous components

CAS No	Chemical name				
	EC No	Index No	REACH No		
	Classification according to Regulation (EC) No. 1272/2008 [CLP]				
141-78-6	ethyl acetate				
	205-500-4	607-022-00-5	01-2119475103-46		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066				
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate				
	247-722-4	615-006-00-4			
	Carc. 2, Acute Tox. 2, Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Aquatic Chronic 3; H351 H330 H319 H335 H315 H334 H317 H412				

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from the danger area and lay down.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary. In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still. Remove casualty to fresh air and keep warm and at rest.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off



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immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. @00000000006

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

4.2. Most important symptoms and effects, both acute and delayed

Allergic reactions.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Position and transport victim on their side. In case of respiratory distress, bring into semi-upright, seated position. Where appropriate artificial ventilation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder. alcohol resistant foam. ABC powder. Atomized water. Dry sand

Unsuitable extinguishing media

Water. High power water jet. High power water jet.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air. In case of fire and/or explosion do not breathe fumes. In case of fire may be liberated: Carbon monoxide Hydrocyanic acid (hydrocyanic acid). vapours of isocyanate

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Special exposure hazards arising from the substance itself, combustion products, resulting gases: In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers. Contaminated fire-fighting water must be collected separately. Remove product from area of fire. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Remove all sources of ignition. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion Do not allow to enter into surface water or drains. Cover drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed containers for disposal.



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6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. If handled uncovered, arrangements with local exhaust ventilation should be used if possible. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air. Keep away from sources of ignition - No smoking. Only use the material in places where open light, fire and other flammable sources can be kept away. Vapours / aerosols must be extracted by suction immediately at point of origin.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep only in the original container in a cool, well-ventilated place. Keep container tightly closed. Recommended storage temperature: 15-30 °C Ensure adequate ventilation of the storage area.

Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances. Store packaging and combustible materials separately from one another. Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Floors should be impervious, resistant to liquids and easy to clean.

Store small packages in a suitable, robust cabinet.

7.3. Specific end use(s)

Hardener (Crosslinker)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
141-78-6	Ethyl acetate	200	-		TWA (8 h)	WEL
		400	-		STEL (15 min)	WEL



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DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
141-78-6	ethyl acetate			
Worker DNEL,	long-term	inhalation	systemic	1468 mg/m³
Worker DNEL,	acute	inhalation	local	1468 mg/m³
Worker DNEL,	long-term	dermal	systemic	63 mg/kg bw/day
Worker DNEL, long-term		inhalation	local	734 mg/m³
Consumer DNEL, acute		inhalation	systemic	734 mg/m³
Consumer DNEL, long-term		inhalation	local	734 mg/m³
Consumer DNEL, long-term		dermal	systemic	37 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	367 mg/m³
Consumer DNEL, long-term		oral	systemic	4,5 mg/kg bw/day
Consumer DN	EL, acute	inhalation	local	367 mg/m³

PNEC values

CAS No	Substance			
Environmental compartment Value				
141-78-6	11-78-6 ethyl acetate			
Freshwater 0,26 r				
Marine water		0,026 mg/l		
Freshwater s	0,34 mg/kg			
Marine sedim	0,034 mg/kg			
Soil		0,22 mg/kg		

8.2. Exposure controls













Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and after work. Before starting work, apply solvent-resistant skincare preparations.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Test suitability of gloves before use.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.



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Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection necessary at: insufficient ventilation. With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Environmental exposure controls

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: light yellow
Odour: ester

Test method

pH-Value: not applicable

Changes in the physical state

Melting point: not determined

Initial boiling point and boiling range: 77 °C DIN 53 171

Sublimation point: not determined

Softening point: not determined

Pour point: not determined

Flash point: -4 °C DIN 51 755

Sustaining combustion: No data available

Flammability

Solid: not applicable
Gas: not applicable

Explosive properties

Vapours can form explosive mixtures with air.

Lower explosion limits: 2,1 vol. % Upper explosion limits: 11,5 vol. %

Ignition temperature: 460 °C DIN 51 794

Auto-ignition temperature

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapour pressure: 97 hPa DIN EN 12

(at 20 °C)

Vapour pressure: not determined

Density (at 20 °C): 0,9 g/cm³ DIN 51 757

Bulk density: not applicable Water solubility: Decomposes in contact with water.

Solubility in other solvents

not determined



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Partition coefficient: not determined

Viscosity / dynamic: DIN 51550

(at 20 °C)

Viscosity / kinematic: not determined ASTM D 445

Flow time: < 30 (3 mm)
Vapour density: not determined
Evaporation rate: not determined
Solvent separation test: < 0,1 %
Solvent content: 87.5 %

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable, Ignition hazard. Explosive. The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

10.2. Chemical stability

Danger of polymerisation. The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

10.3. Possibility of hazardous reactions

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions. Gas/vapour, highly flammable.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. Risk of explosion by shock, friction, fire or other sources of ignition. Remove all sources of ignition. Keep away from heat. Ignition hazard. Decompostion takes place from temperatures above: > 150 °C

10.5. Incompatible materials

Keep away from: Protect against: Contact with air/oxygen. Acid, concentrated., Oxidizing agents, strong. Reacts violently in contact with acids, amines, driers, polymerization accelerators and easily oxidized materials.

Radical former, Peroxides, Reducing agent.

10.6. Hazardous decomposition products

Hydrogen cyanide (hydrocyanic acid). Thermal decomposition can lead to the escape of irritating gases and vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

Acute toxicity

Based on available data, the classification criteria are not met.

Inhalation of vapours in high concentration can cause narcotic effects and metabolic acidosis.



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CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
141-78-6	ethyl acetate					
	oral	LD50 mg/kg	5600	Rat		
	dermal	LD50 mg/kg	18000	Rabbit		
	inhalative (4 h) vapour	LC50	58 mg/l	Rat		
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate					
	inhalative vapour	ATE	0,5 mg/l			
	inhalative aerosol	ATE	0,05 mg/l			

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

May cause skin and eye irritation in susceptible persons. Contact with eyes may cause irritation.

Sensitising effects

Based on available data, the classification criteria are not met.

There are no data available on the preparation/mixture itself.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

There are no data available on the preparation/mixture itself.

STOT-single exposure

May cause drowsiness or dizziness. (ethyl acetate)

There are no data available on the preparation/mixture itself.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Inhalation causes narcotic effects/intoxication.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

LD50/oral/rat = > 2000 mg/kg

Mild eye irritation (rabbit)

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

When under water, the product is transformed to poly-urea at the interface while producing CO2. Liquid soap or water soluble solvents enhance this reaction strongly.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
141-78-6	ethyl acetate						
	Acute fish toxicity	LC50	230 mg/l	96 h	Pimephales promelas		
	Acute algae toxicity	ErC50 mg/l	3300		Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50	717 mg/l	48 h	Daphnia magna		

12.2. Persistence and degradability



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The product has not been tested. Product is biodegradable with difficulty.

12.3. Bioaccumulative potential

There are no data available on the preparation/mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
141-78-6	ethyl acetate	0,6

BCF

CAS No	Chemical name	BCF	Species	Source
141-78-6	ethyl acetate	30		

12.4. Mobility in soil

There are no data available on the preparation/mixture itself.

12.5. Results of PBT and vPvB assessment

There are no data available on the preparation/mixture itself.

12.6. Other adverse effects

Toxic to aquatic life with long lasting effects.

Further information

Avoid release to the environment. The statement is derived form the properties of the components.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste disposal number of contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately

collected municipal packaging waste); metallic packaging

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled. Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1993

14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethyl acetate)

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3



Classification code: F1
Special Provisions: 640D
Limited quantity: LQ4, 3 Liter
Excepted quantity: E2

Transport category: 2
Hazard No: 33



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Tunnel restriction code: D/E

Other applicable information (land transport)

: 274 - 330 - 601 - 640D

: 2

Inland waterways transport (ADN)

14.1. UN number: UN 1993

14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethyl acetate)

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3



Classification code: F1
Special Provisions: 640D
Limited quantity: 1 LIter
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1993

14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethyl acetate)

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3



Marine pollutant:

Special Provisions:

Limited quantity:

Excepted quantity:

EmS:

No

1 Liter

E2

EmS:

F-E, S-E

Other applicable information (marine transport)

Staukategorie B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1993

14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethyl acetate)

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3



Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Excepted quantity:

A3

1 L

Y341

Excepted quantity:

E2

IATA-packing instructions - Passenger: 353 IATA-max. quantity - Passenger: 5 L





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IATA-packing instructions - Cargo: 364
IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: Combustible liquids.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

2010/75/EU (VOC): 99,92 % (899,28 g/l) 2004/42/EC (VOC): 99,92 % (899,28 g/l)

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile

work protection guideline' (94/33/EC).

Water contaminating class (D): 1 - slightly water contaminating

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.



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H319	Causes serious eye irritation.			
H330	Fatal if inhaled.			
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.			
H412	Harmful to aquatic life with long lasting effects.			
EUH066	Repeated exposure may cause skin dryness or cracking.			
EUH204	Contains isocyanates. May produce an allergic reaction.			

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)