

Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Film release agent PVA

Print date: 16.05.2011

Product code: 165110-2010

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1. Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Film release agent PVA

Use of the substance/mixture

Parting agent.

Company/undertaking identification

Company name:	R&G Faserverbundwerkstoffe GmbH	
	Composite Technology	
Street:	Im Meißel 7 - 13	
Place:	D-71111 Waldenbuch	
Post-office box:	1145	
	D-71107 Waldenbuch	
Telephone:	+49-7157-530460	Telefax: +49-7157-530470
e-mail:	info@r-g.de	
Internet:	www.r-g.de	
Responsible Department:	Management	
Emergency telephone:	poison information centre	

2. Hazards identification

Classification

Indications of danger : Highly flammable, Irritant

R-phrases:

Highly flammable.

Irritating to eyes.

Vapours may cause drowsiness and dizziness.

GHS: 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.

Explication of special hazards for human health and environment

In use, may form flammable/explosive vapour-air-mixture. Solvents may degrease the skin. High concentration of vapours may cause irritation to eyes an respiratory system an produce narcotic effects.

3. Composition/information on ingredients

Chemical characterization (Mixture)

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Hazardous components

EC No.	CAS No.	Chemical name	Quantity
		Classification	
		GHS classification	
200-661-7	67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	40-45%
		F, Xi R11-36-67	
		Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
201-158-5	78-92-2	butan-2-ol	5-10%
		Xi R10-36/37-67	
		Flam. Liq. 3, Eye Irrit. 2, STOT SE 3, STOT SE 3; H226 H319 H335 H336	

Full text of R- and H-phrases: see section 16.

4. First aid measures

General information

Change contaminated clothing. Take the injured person out of the danger area and lay him/her down. If victim is at risk of losing consciousness, position and transport on their side. Lie affected person down, cover with a blanket and keep warm. Call a doctor, giving the substance's exact name.

After inhalation

Provide fresh air.

The following symptoms can occur: Dizziness. Headache. unconsciousness. Nausea. difficulty of breathing.

Consult physician if problems persist.

After contact with skin

After contact with skin, wash immediately with soap and plenty of water. If skin becomes irritated, seek medical treatment.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Protect the eye that is not injured. Consult a doctor when complaints persist.

After ingestion

Do not induce vomiting. Rinse mouth immediately and drink large quantities of water. Consult physician.

Do not introduce anything into the mouth of an unconscious person.

5. Fire-fighting measures

Suitable extinguishing media

Water. Atomized water. Sand. alcohol resistant foam. Dry extinguishing powder. Carbon dioxide (CO₂).

Special exposure hazards arising from substance or mixture itself, combustion products, resulting gases

Carbon dioxide (CO₂). Carbon monoxide.

Gases emitted by burning organic materials must always be classified as respiratory poisons.

Special protective equipment for fire-fighters

Wear breathing apparatus with own air supply. In case of fire and/or explosion do not breathe fumes.

Additional information

Cool affected receptacles with water. Fire residue and contaminated firefighting water must be disposed of in accordance with government regulations. Contaminated fire-fighting water must not get into the sewerage network.

6. Accidental release measures

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Personal precautions

Provide adequate ventilation. Do not breathe in vapours. Keep away from sources of ignition. No smoking. Avoid contact with skin, eyes, and clothing.

Environmental precautions

Do not empty into drains or the aquatic environment. Do not allow to enter groundwater. Do not allow to enter the soil or subsoil.

Methods for cleaning up/taking up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Dispose of contaminated material as § 13 waste.

7. Handling and storage

Handling

Advice on safe handling

Provide adequate ventilation/vapour extraction at the workplace. Only use the material in places where open light, fire and other flammable sources can be kept away. When using do not eat, drink or smoke.

Advice on protection against fire and explosion

Use water to cool receptacles in danger. Keep away from sources of ignition. No smoking. Take precautionary measures against static discharges. Fumes may form explosive mixtures with air. Earth receptacles. Spray mist may be blammbare at temperatures below the flash point. Concentrated vapors are heavier than air. Before opening the container prepare fire extinguisher. ~Vulkanisationsagenz1=Vulcanization agent(s) (B)

Further information on handling

For restriction of emission on volatile organic compounds (VOC) the solvent vapours should be supplied to an exhaust air purification facility (filter, gas washer, incineration).

Storage

Requirements for storage rooms and vessels

Store only in original container. Do not store out of doors. Protect against the effects of heat and direct sunlight. Storage temperature: +10-+30°C

Advice on storage compatibility

Keep away from oxidising agents.

Further information on storage conditions

Keep in well sealed receptacles at a cool, dry location.
Ventilate adequately storage and work rooms.

Storageclass (D): 3A

8. Exposure controls/personal protection

Exposure limit values

Exposure limits (EH40)

CAS No.	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
78-92-2	Butan-2-ol	100	308		TWA (8 h)	WEL
		150	462		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

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Occupational exposure controls

When thresholds are exceeded approved respiratory equipment must be worn.

Protective and hygiene measures

Do not smoke, eat, or drink during work. Do not breathe in vapours.

Respiratory protection

Gas filtrating Half-face mask: FFA EN 405, BGR 190, ZH 1/701 Modell 4251 (FFA1P1/1000ml/m³)
4255 (FFA2P2SL/5000ml/m³)

Half-face mask or Quarter-face mask with gas filter: EN 141, BGR 190, ZH 1/701 Typ
6051(A1/1000ml/m³) 6055 (A2/5000ml/m³)

Full-face mask with gas filter: EN 136, BGR 190, ZH 1/701
TYP A,

Indication colour brown

Hand protection

Wear protective gloves. (EN 374)

Material: NBR (Nitrile rubber). FKM (Fluoroelastomer).

Breakthrough time: 60 min

Eye protection

Tightly sealed safety glasses. (EN 166, BGR 192, ZH 1/703)

Skin protection

Wear protective clothing. (EN 340, BGR 189, ZH 1/700), antistatische Stiefel (EN 344, BGR 191, ZH
1/702))

Environmental exposure controls

Do not let the product enter the groundwater, open water, or the sewerage system.

9. Physical and chemical properties

General information

Physical state:	viscous
Colour:	colourless
Odour:	characteristic

Important health, safety and environmental information

	Test method
pH-Value (at 20 °C):	6,5 DIN 19268
Changes in the physical state	
Boiling point:	> 82 °C
Flash point:	18 °C DIN EN ISO 2719
Lower explosion limits:	1,4 vol. %
Upper explosion limits:	12,0 vol. %
Vapour pressure: (at 20 °C)	< 41 hPa
Vapour pressure: (at 50 °C)	< 225 hPa
Density (at 20 °C):	0,94 g/cm ³ DIN 51757
Water solubility:	soluble
Viscosity / kinematic: (at 23 °C)	> 7 mm ² /s 3 EN ISO 2431
Flow time: (at 23 °C)	194 s 3 EN ISO 2431

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Other information

Ignition temperature: > 340 °C

10. Stability and reactivity

Materials to avoid

Oxidizing agents.

Hazardous decomposition products

no decomposition when stored and handled properly

11. Toxicological information

Acute toxicity

Preparation not tested.

Additional information on tests

Organic solvent: according to the literature, aliphatic hydrocarbons have a slightly irritant effect on the skin and mucous membranes in addition to their demaistrising and narcotic properties. Direct contact with lung tissue (e.g. through aspiration) may cause pneumonia.

Empirical data on effects on humans

LD 50/oral rat => 2.000 mg/kg

LD 50/dermal rat => 2.000 mg/kg

LC 50/inhalativ 4h rat => 20 mg/l

Has de-greasing effect on the skin. Eye contact may cause irritation.

Inhalation of high vapour concentrations can cause narcotic effects and metabolic acidosis. Symptoms of overexposure are dizziness, headaches, fatigue, nausea, unconsciousness, and respiratory arrest.

Fast evaporation of liquid can cause frostbite.

12. Ecological information

Ecotoxicity

LC 50/96h/Poecilia reticulata: 10-100 mg/l

EC 50/72h/algae: 10-100 mg/l

EC 50/48h/Daphnia magna: 10-100 mg/l

Mobility

The product ist insoluble an floats on water. The product evaporates readily.

Other adverse effects

Keine Daten verfügbar.

Further information

Do not let the product enter the groundwater, open water, or the sewerage system.

13. Disposal considerations

Advice on disposal

Carry out a burning of hazardous waste according to official regulations.

Waste disposal number of waste from residues/unused products

070204 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other organic solvents, washing liquids and mother liquors
Classified as hazardous waste.

Waste disposal number of used product

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070204 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other organic solvents, washing liquids and mother liquors
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Uncontaminated packaging can be recycled. Noncleanable packaging must be disposed of like the substance.

14. Transport information

Land transport (ADR/RID)

UN number: 1987
ADR/RID class: 3
Classification code: F1
Warning plate
Hazard-no.: 33
Hazard label: 3



ADR/RID packing group: II
Limited quantity: LQ4
Tunnel restriction code: D/E

Description of the goods

ALCOHOLS, N.O.S. (Isopropanol; Butanole)

Other applicable information (land transport)

: 3
: E
: 274 330 601
: 274 330 601 640D
: 2
: D1E
Special provisions: 274 601 640C
E2

Marine transport

UN number: 1987
IMDG code: 3
Marine pollutant: •
Hazard label: 3



IMDG packing group: III
EmS: F-E, S-D

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Limited quantity: 5 L

Description of the goods

ALCOHOLS, N.O.S. (Isopropanol; Butanols)

Other applicable information (marine transport)

: 223, 944, 955

: 274, 330, 944

Special provisions: 223, 274, 330, 944

E1

Air transport

UN/ID number: 1987

ICAO/IATA-DGR: 3

Hazard label: 3



ICAO packing group: III

Limited quantity Passenger: 10 L

IATA-packing instructions - Passenger: 309

IATA-max. quantity - Passenger: 60 L

IATA-packing instructions - Cargo: 310

IATA-max. quantity - Cargo: 220 L

Description of the goods

ALCOHOLS, N.O.S. (Isopropanol; Butanols)

Other applicable information (air transport)

: Y309

: Y305

: A3

E1

15. Regulatory information

Labelling

Danger symbols: F - Highly flammable; Xi - Irritant



F - Highly flammable

Xi - Irritant

R phrases

- 11 Highly flammable.
- 36 Irritating to eyes.
- 67 Vapours may cause drowsiness and dizziness.

S phrases

- 07 Keep container tightly closed.
- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe Aerosol.
- 24 Avoid contact with skin.
- 25 Avoid contact with eyes.

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26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Additional advice on labelling

The product is classified and labelled under the EC Directives/hazardous substances laws (GefStoffV).

GHS labelling

Signal word:

Danger

Pictograms:

flame; exclamation mark



Hazard statements

- | | |
|------|-------------------------------------|
| H225 | Highly flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |

Precautionary statements

- | | |
|----------------|--|
| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| P233 | Keep container tightly closed. |
| P240 | Ground/bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ventilating/lighting equipment. |
| P242 | Use only non-sparking tools. |
| P243 | Take precautionary measures against static discharge. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P264 | Wash ... thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| 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 ... for extinction. |
| P235 | Keep cool. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to |

National regulatory information

- | | |
|--------------------------------|--|
| Employment restrictions: | Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing. |
| Water contaminating class (D): | 1 - slightly water contaminating |

16. Other information

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

- | | |
|-------|--|
| 10 | Flammable. |
| 11 | Highly flammable. |
| 36 | Irritating to eyes. |
| 36/37 | Irritating to eyes and respiratory system. |

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67 Vapours may cause drowsiness and dizziness.

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

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

Further Information

All information, recommendations, and advice on the part of R&G Faserverbundwerkstoffe GmbH are published to the best of our knowledge and belief. They are noncommittal and contain neither explicit nor tacit assurance or warranty of particular properties. The values specified for properties are typical figures. Recommendations or advice serve to describe our products and possible applications in a general or exemplary, but not specifically individual manner. In the course of the constant technical advancement and improvement of our products there may be changes to the characteristic values, copy, and diagrams; no specific reference is made to any such change. Owing to our products' wide and highly diverse range of potential applications far beyond any of our attempts to analyse, the customer alone is responsible for examining our products' suitability for the respective processes and purposes and their respective processibility. All and any protective rights and the applicable laws, terms, and conditions must be observed by the buyer or user of our products at their own responsibility. Publication is not a licence and does not intend the violation of any patents.

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