

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Film release agent PVA

Print date: 23.06.2017

Product code: 165110

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Film release agent PVA

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

Lubricants, greases, release products

1.3. Details of the supplier of the safety data sheet

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 (0)7157 5304-60	Telefax: +49 (0)7157 5304-70
e-mail:	info@r-g.de	
Internet:	www.r-g.de	
Responsible Department:	Management	

1.4. Emergency telephone number: Vergiftungs-Informationen-Zentrale Freiburg
Tel: +49 (0)761 19240

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.

Flammable liquid and vapour.

May cause respiratory irritation.

Causes serious eye irritation.

May cause drowsiness or dizziness.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

propan-2-ol; isopropyl alcohol; isopropanol

butan-2-ol

Signal word: Danger**Pictograms:****Hazard statements**

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H335	May cause respiratory irritation.
H319	Causes serious eye irritation.

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H336 May cause drowsiness or dizziness.

Precautionary statements

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

P271 Use only outdoors or in a well-ventilated area.

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 hazards

No information available.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			40-45%
	200-661-7	603-117-00-0		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
78-92-2	butan-2-ol			5-10 %
	201-158-5	603-127-00-5		
	Flam. Liq. 3, Eye Irrit. 2, STOT SE 3, STOT SE 3; H226 H319 H335 H336			

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

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Take off immediately all contaminated clothing and wash it before reuse. Artificial respiration on respiratory arrest. If unconscious, storage and transport in stable lateral position Remove affected person from the danger area and lay down. Call a doctor if you feel unwell.

After inhalation

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). The typical signs are headaches, dizziness, fatigue, muscle weakness, numbness, and in serious cases unconsciousness.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

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.

After ingestion

Rinse mouth immediately and drink plenty of water. Consult physician. never give an unconscious person things thru the mouth

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

SECTION 11: Toxicological information

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water. Water spray jet, Sand , Carbon dioxide (CO₂), Foam, Extinguishing powder.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours can form explosive mixtures with air.

In case of fire may be liberated: Carbon dioxide (CO₂), Carbon monoxide

5.3. Advice for firefighters

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.

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.

6.2. Environmental precautions

Do not discharge into drains, surface or groundwater.

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.

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

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

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

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.

Advice on storage compatibility

Keep away from oxidising agents.

Further information on storage conditions

In the original container at room temperature. Do not store out of doors. Protect against the effects of heat and direct sunlight.

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/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

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.

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.

Suitable gloves type:

Wearing time with permanent contact > 480min.

FKM (fluoro rubber) - Thickness of the glove material: 0,7mm

Butyl caoutchouc (butyl rubber) - Thickness of the glove material: 0,7mm

NBR (Nitrile rubber) - Thickness of the glove material: 0,4mm

Wearing time with occasional contact (splashes): > 60min.

Disposable gloves: NBR (Nitrile rubber) - Thickness of the glove material: 0,2mm

Skin protection

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

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Combination filtering device (EN 14387) A1P1/A2P2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	viscous
Colour:	colourless
Odour:	characteristic

Test method

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pH-Value (at 20 °C):	6,5 DIN 19268
Changes in the physical state	
Melting point:	not determined
Initial boiling point and boiling range:	> 82 °C
Flash point:	18 °C DIN EN ISO 2719

Flammability

Solid:	not applicable
Gas:	not applicable
Lower explosion limits:	1,4 vol. %
Upper explosion limits:	12 vol. %
Ignition temperature:	> 340 °C

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidizing.	
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: (at 20 °C)	easily soluble

Solubility in other solvents

mixable with most organic solvent cleaners : Alcohol Aldehyde Ketone	
Partition coefficient:	not determined
Viscosity / kinematic: (at 23 °C)	> 7 mm ² /s EN ISO 2431
Flow time: (at 23 °C)	194 s 3 DIN EN ISO 2431
Vapour density: (at 25 °C)	> 2,1
Evaporation rate:	not determined

9.2. Other information

Solid content:	not determined
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SECTION 10: Stability and reactivity**10.1. Reactivity**

no decomposition when stored and handled properly

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Oxidising agent, Alkali metals, Aluminium, Acid chlorides, inorganic

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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.

10.5. Incompatible materials

Oxidising agent, Alkali metals, Aluminium, Acid chlorides, inorganic

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose		Species	Source
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50	5840 mg/kg	Rat	OECD 401
	dermal	LD50	12800 mg/kg	Rabbit	GESTIS
78-92-2	butan-2-ol				
	oral	LD50	2190 mg/kg	Rat	GESTIS
	inhalative (4 h) vapour	LC50	48,5 mg/l	Rat	

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

According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50	8970 mg/l	96 h	Leuciscus idus (golden orfe)	IUCLID
	Acute crustacea toxicity	EC50	9714 mg/l	48 h	Daphnia magna (Big water flea)	IUCLID
78-92-2	butan-2-ol					
	Acute fish toxicity	LC50	3670 mg/l	96 h	Pimephales promelas	GESTIS

12.2. Persistence and degradability

The product has not been tested.

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
	OECD 301E, C.4-B	> 95 %	28	
	Readily biodegradable (according to OECD criteria).			
78-92-2	butan-2-ol			
	OECD 301E, C.4-B	> 98%	19	
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05
78-92-2	butan-2-ol	0,65

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

No special environmental measures are necessary.

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.

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

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 hazardous substances
Classified as hazardous waste.

Contaminated packaging

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

SECTION 14: Transport information

Land transport (ADR/RID)

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14.1. UN number: UN 1987
14.2. UN proper shipping name: ALCOHOLS, N.O.S. (Isopropanol, butanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Classification code: F1
 Special Provisions: 274 601 640D
 Limited quantity: 1 L
 Transport category: 2
 Hazard No: 33
 Tunnel restriction code: D/E

Other applicable information (land transport)
 E2

Inland waterways transport (ADN)

14.1. UN number: UN 1987
14.2. UN proper shipping name: ALCOHOLS, N.O.S. (Isopropanol, butanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Classification code: F1
 Special Provisions: 274 601 640D
 Limited quantity: 1 L

Other applicable information (inland waterways transport)
 E2

Marine transport (IMDG)

14.1. UN number: UN 1987
14.2. UN proper shipping name: ALCOHOLS, N.O.S. (Isopropanol, butanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Special Provisions: 274
 Limited quantity: 1 L
 EmS: F-E, S-D

Other applicable information (marine transport)
 E2

Air transport (ICAO)

14.1. UN number: UN 1987
14.2. UN proper shipping name: ALCOHOLS, N.O.S. (Isopropanol, butanol)

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14.3. Transport hazard class(es): 3**14.4. Packing group:** II

Hazard label: 3



Special Provisions: A3 A180

Limited quantity Passenger: 1 L

IATA-packing instructions - Passenger: 353/Y341

IATA-max. quantity - Passenger: 5 L/ 1 L

IATA-packing instructions - Cargo: 364

IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)

E2

Passenger-LQ: Y341

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**

2004/42/EC (VOC): 45 %

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

15.2. Chemical safety assessment

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

SECTION 16: Other information**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%

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

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H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

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.)