

Safety Data Sheet

according to Regulation (EC) No 1907/2006

UP pre-gel colourless

Revision date: 24.08.2018

Product code: 140170

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

UP pre-gel colourless

1.2. Relevant identified uses of the substance or mixture and uses advised against**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-Informations-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. 3

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Reproductive toxicity: Repr. 2

Specific target organ toxicity - repeated exposure: STOT RE 1

Hazard Statements:

Flammable liquid and vapour.

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

Suspected of damaging the unborn child.

Causes damage to organs through prolonged or repeated exposure.

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

styrene

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

| | |
|------|------------------------------|
| H226 | Flammable liquid and vapour. |
| H332 | Harmful if inhaled. |
| H315 | Causes skin irritation. |

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H319 Causes serious eye irritation.
 H361d Suspected of damaging the unborn child.
 H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P241 Use explosion-proof electrical/ventilating/lighting equipment.
 P282 Wear cold insulating gloves and either face shield or eye protection.
 P235 Keep cool.

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] | | | |
| 100-42-5 | styrene | | | >=35 - <50 % |
| | 202-851-5 | 601-026-00-0 | | |
| | Flam. Liq. 3, Repr. 2, Acute Tox. 4, STOT RE 1, Skin Irrit. 2, Eye Irrit. 2; H226 H361d H332 H372 H315 H319 | | | |

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

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

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. Keep respiratory equipment at hand. First Aid for the person providing it can be dangerous to give mouth-to-mouth resuscitation.

After inhalation

Immediately call a POISON CENTER/doctor/?. Remove person to fresh air and keep comfortable for breathing. Move victim to fresh air. Put victim at rest and keep warm. In case of irregular breathing or respiratory arrest provide artificial respiration. First Aid for the person providing it can be dangerous to give mouth-to-mouth resuscitation. If unconscious place in recovery position and seek medical advice. In case of inhalation of decomposition products in symptoms may be delayed. The affected person may need to be kept under medical observation 48 hours.

After contact with skin

Immediately call a POISON CENTER/doctor/?. After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

Immediately call a POISON CENTER/doctor/?. Remove contact lenses, if present and easy to do. Continue rinsing. Chemical burns must be treated promptly by a physician. In the case of complaints or Symtomen avoid further impacts. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Immediately call a POISON CENTER/doctor/?. Rinse mouth thoroughly with water. Remove person to fresh air and keep comfortable for breathing. Let water be drunken in little sips (dilution effect). Do NOT induce

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vomiting. Risk of aspiration. Potential damage to lungs after vomiting. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

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

Gastrointestinal complaints. Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness, blistering, dermatitis, etc.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguishing powder, Carbon dioxide (CO₂), Water spray, Foam

Unsuitable extinguishing media

jet of water

5.2. Special hazards arising from the substance or mixture

When fire or if heated, a pressure increase will occur and the container may burst. Harmful to aquatic life with long lasting effects. Do not allow to enter into surface water or drains.

Decomposition products may include the following materials: Carbon dioxide (CO₂) Carbon monoxide Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Evacuate all non-essential personnel. No action shall be taken involving any personal risk or without suitable training.

Fire-fighters should: Wear breathing apparatus without recirculating air and suitable protective clothing .

Fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic protection be chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Only allow access to authorised staff. Do not breathe in gases/vapours/aerosols. Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

For emergency responders : Personal protective equipment see Section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains. share Pollution of rivers, lakes or sewers, according to local posited that the relevant competent authorities. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if environmental impacts caused by the product. (Sewers, waterways, soil or air) The containers from spill area.

6.3. Methods and material for containment and cleaning up

Stop leak if safe to do so. Dilute with plenty of water. Wipe up with absorbent material (eg. cloth, fleece).

Absorb with sand, earth, or another absorbent substance.

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

Personal protection equipment: see section 8. Do not get in eyes, on skin, or on clothing. Do not breathe

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dust/fume/gas/mist/vapours/spray. Avoid release to the environment. Provide adequate room ventilation, if necessary with vapour extraction at the workplace. Keep only in the original container. Keep receptacles tightly sealed.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Further information on handling

When using do not eat, drink, smoke, sniff. Wash hands with soap and water before eating and drinking See Section 8, additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations. Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight. Keep opened receptacles upright to prevent leakage.

Advice on storage compatibility

Keep away from incompatible substances under § 10.2. Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|----------|-----------|-----|-------------------|-----------|---------------|--------|
| 100-42-5 | Styrene | 100 | 430 | | TWA (8 h) | WEL |
| | | 250 | 1080 | | STEL (15 min) | WEL |

Additional advice on limit values

Exposure limit values: No data available

8.2. Exposure controls



Appropriate engineering controls

This product is not to be used under conditions of poor ventilation.

To follow: Exposure limit values. Use explosion-proof ventilating equipment.

Protective and hygiene measures

Wash hands and face before breaks and after work and take a shower if necessary. Take off immediately all contaminated clothing and wash it before reuse.

Eye/face protection

Wear eye/face protection. Dust protection eye glasses

Hand protection

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. Wear suitable gloves.

Skin protection

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

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Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls

To follow: Directive 2010/75/EU on industrial emissions

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: Paste

Colour:

Test method

pH-Value (at 20 °C): No data available

Changes in the physical state

Melting point: No data available

Initial boiling point and boiling range: 145 °C

Flash point: 34 °C

Flammability

Solid: No data available

Gas: No data available

Lower explosion limits:

Upper explosion limits:

Ignition temperature: DIN 51794

Auto-ignition temperature

Gas: No data available

Decomposition temperature: No data available

Oxidizing properties

No data available

Water solubility: virtually insoluble

Solubility in other solvents

No data available

Partition coefficient: No data available

Viscosity / dynamic: ISO 9371

Vapour density: No data available

Evaporation rate: No data available

9.2. Other information

Solid content: not determined

No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No data available

10.2. Chemical stability

The product is: stable

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

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No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

No data available

Further information

No data available

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

LD50 (oral, rat): 5.000 mg/kg

LD50 (oral, mouse.): 316 mg/kg

LC50 (inhalativ, rat): 11,8 mg/l / 4h

ATEmix calculated

ATE (inhalation aerosol) 3,000 mg/l

| CAS No | Chemical name | | | | |
|----------|-------------------------|-----------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 100-42-5 | styrene | | | | |
| | oral | LD50 2650 mg/kg | Rat | GESTIS | |
| | inhalation (4 h) vapour | LC50 12 mg/l | Rat | GESTIS | |
| | inhalation aerosol | ATE 1,5 mg/l | | | |

Irritation and corrosivity

May be harmful if inhaled. Irritating to skin. Irritating to eyes.

STOT-single exposure

Potential hazards: Depression of central nervous system

STOT-repeated exposure

No data available

SECTION 12: Ecological information**12.1. Toxicity**

No data available

| CAS No | Chemical name | | | | | |
|----------|----------------------|-----------------|-----------|---------|--------|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 100-42-5 | styrene | | | | | |
| | Acute algae toxicity | ErC50 0,72 mg/l | 96 h | | GESTIS | |

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

No data available

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Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|----------|---------------|---------|
| 100-42-5 | styrene | 3,05 |

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

No data available

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

This material and its container must be disposed of in a safe way. Consult the appropriate local waste disposal expert about waste disposal. Dispose of waste according to applicable legislation. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Contaminated packaging

To follow: Potential hazards: This material and its container must be disposed of as hazardous waste.

SECTION 14: Transport information**Land transport (ADR/RID)**

| | |
|--|----------------|
| 14.1. UN number: | UN 1866 |
| 14.2. UN proper shipping name: | Resin solution |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | III |
| Hazard label: | 3 |



| | |
|--------------------------|------|
| Classification code: | F1 |
| Special Provisions: | 640E |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| Transport category: | 3 |
| Hazard No: | 30 |
| Tunnel restriction code: | D/E |

Inland waterways transport (ADN)

| | |
|--|----------------|
| 14.1. UN number: | UN 1866 |
| 14.2. UN proper shipping name: | Resin solution |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | III |
| Hazard label: | 3 |



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Classification code: F1
 Special Provisions: 640E
 Limited quantity: 5 L
 Excepted quantity: E1

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number: UN 1866
14.2. UN proper shipping name: Resin solution
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: 223, 955
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-E, S-E

Other applicable information (marine transport)

E1

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1866
14.2. UN proper shipping name: Resin solution
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: A3
 Limited quantity Passenger: 10 L
 Passenger LQ: Y344
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 355
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 366
 IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No data available

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

No data available

SECTION 15: Regulatory information

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

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EU regulatory information

2004/42/EC (VOC): 35 - 50%

Additional information

Classification according to Directive 67/548/EEC or 1999/45/EC
 May produce an allergic reaction.

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): 2 - clearly 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)

| | |
|-------|---|
| H226 | Flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H361d | Suspected of damaging the unborn child. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |

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.)