

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Release spray

Print date: 04.03.2013

Product code: 165105-GHS-2013

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

Identification of the substance or mixture

Release spray

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	
1.4. Emergency telephone number:	poison information centre	

2. Hazards identification

Classification

Indications of danger: Extremely flammable, Irritant, Dangerous for the environment

R phrases:

Extremely flammable.

Irritating to skin.

Toxic to aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

Vapours may cause drowsiness and dizziness.

GHS: Hazard categories:

Flammable liquid: Flam. Liq. 1

Germ cell mutagenicity: Muta. 1B

Carcinogenicity: Carc. 1B

Hazard Statements:

Extremely flammable liquid and vapour.

May cause genetic defects.

May cause cancer.

3. Composition/information on ingredients

Chemical characterization (Mixture)

Aerosol: Wirkstoffe mit Propan/Butan als Treibgas

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Hazardous components

EC No	CAS No	Chemical name	Quantity
		Classification	
		GHS classification	
265-151-9	64742-49-0	Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha	30-35 %
		Carc. Cat. 2, Muta. Cat. 2, Xn - Harmful R45-46-65	
		Carc. 1B, Muta. 1B, Asp. Tox. 1; H350 H340 H304	
	64742-48-9	Naphtha (Erdöl), mit Wasserstoff behandelt, schwere	1-5%
		Xi - Irritant R10-36/37-67	
	64742-49-0	Naphtha (Erdöl), mit Wasserstoff behandelte, leichte	1-5%
		F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67	
201-158-5	78-92-2	butan-2-ol	1 - 5 %
		Xi - Irritant 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. Consult physician if problems persist.
The following symptoms can occur: Dizziness. Headache. Nausea. unconsciousness. dyspnoea. pneumonia. vomiting.

After contact with skin

After contact with skin, wash immediately with soap and plenty of water. In cases of frostbite rinse with ample water. Do not remove clothing.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of durable symptoms, consult an ophthalmologist.

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. Risk of aspiration. Potential damage to lungs after vomiting.

Advice to doctor

Provide symptomatic treatment.
After ingestion the stomach must be emptied by a doctor using a probe. Follow-up observations for pneumonia and pulmonary oedema.

5. Fire-fighting measures

Suitable extinguishing media

Extinguishing materials should be selected according to the surrounding area.
Water fog. Carbon dioxide (CO₂). Foam. Sand. Dry extinguishing powder.

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Extinguishing media which must not be used for safety reasons

High power water jet.

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

Fire gives rise to dense black smoke. Carbon dioxide (CO₂). Carbon monoxide. hydrocarbons.
Gases emitted by burning organic materials must always be classified as respiratory poisons.

Special protective equipment for fire-fighters

In case of fire: Wear self-contained breathing apparatus. 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 be collected separately.

6. Accidental release measures

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.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Leakage into the environment must be prevented.

Methods for cleaning up/taking up

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

7. Handling and storage

Handling

Advice on safe handling

Ventilate adequately storage and work rooms. Do not eat or drink during work. Avoid contact with skin and eyes.

Advice on protection against fire and explosion

Fumes may form explosive mixtures with air. Keep away from sources of ignition. No smoking.
Concentrated vapors are heavier than air.
Protect against the effects of heat and direct sunlight.

Storage

Requirements for storage rooms and vessels

Keep receptacles tightly sealed. Keep only in the original container in a cool, well ventilated place.
The applicable provisions of the water and building legislation must be observed.

Advice on storage compatibility

Keep away from oxidising agents.

Further information on storage conditions

Do not store out of doors.
Storage temperature: of °C: +10 up to °C: +30

Storageclass (D):

2 B

8. Exposure controls/personal protection

Exposure limit values

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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
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL

8.2. Exposure controls

Occupational exposure controls

Ventilate adequately storage and work rooms.

Protective and hygiene measures

Do not smoke, eat, or drink during work.

Respiratory protection

Respiratory equipment for high concentrations. Filter respirator (full mask or mouth-piece) with filter: A

Hand protection

Protect skin by using skin protective cream.

Wear protective gloves. Kategorie: III (EN 374) Index 6, >480 min

Eye protection

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

Skin protection

Suitable protection of the body: EN 340, BGR 189, ZH 1/700

Boots. EN 344, BGR 191, ZH 1/702

9. Physical and chemical properties

General information

Physical state:	Aerosol
Colour:	white
Odour:	characteristic

Important health, safety and environmental information

Test method

Changes in the physical state

Boiling point:	- 42 °C
Flash point:	- 97 °C
Lower explosion limits:	0,7 vol. %
Upper explosion limits:	7,0 vol. %
Vapour pressure: (at 20 °C)	< 3.000 hPa
Vapour pressure: (at 50 °C)	< 7.000 hPa
Density (at 20 °C):	0,645 g/cm ³
Water solubility: (at 20 °C)	< 50 g/L
Solubility in other solvents:	mixable with most organic solvent cleaners

9.2. Other information

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Ignition temperature: > 200 °C

10. Stability and reactivity

10.4. Conditions to avoid

Stabile under the specified storage conditions.

Materials to avoid

Keep away from oxidising agents.

11. Toxicological information

Acute toxicity

Toxicological data are not available. Preparation not tested. The classification was undertaken in accordance with the method of calculation governed by the preparation regulations (1999/45/EC). Acute toxicity, irritation of the skin and mucous membrane, and mutagenic potential of the preparation assessed by the manufacturer on the basis of the data sheets available on the main components. Information gaps exist on some of the main individual components. However, according to the experience of the manufacturer, no dangers above and beyond those on the product label are to be expected.

Irritation and corrosivity

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

Additional information on tests

The description of potential damaging effects is drawn from practical experience and/or the toxicological properties of individual constituents.

Empirical data on effects on humans

The statement is derived from the properties of the components.

LD50/oral/Ratte => 2.000 mg/kg

LD50/dermal/Ratte => 2.000 mg/kg

LC50/inhalativ/4h/Ratte => 20 mg/l

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

There are no ecotoxicological assessments available at present. The classification was undertaken in accordance with the method of calculation governed by the preparation regulations (1999/45/EC).

The statement is derived from the properties of the components.

Aquatic toxicity: LC50/90h/Guppy = 1-10 mg/l; EC50/72h/Alge = 1-10 mg/l; EC50/48h/Daphnia = 1-10 mg/l

Terrestrial toxicity, Plant toxicity, Effects in sewage plants keine Daten verfügbar

Mobility

Surface tension: nicht anwendbar

Transport ground-water: Das Produkt schwimmt auf dem Wasser/ unlöslich.

Transport water-air: Das Produkt verdunstet leicht.

Transport ground-air: Das Produkt verdunstet leicht.

12.2. Persistence and degradability

Keine Daten verfügbar.

12.3. Bioaccumulative potential

nicht anwendbar

12.6. Other adverse effects

Keine Daten verfügbar.

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13. Disposal considerations

Advice on disposal

The product must be disposed of by an approved company in accordance with the local government regulations. May not be disposed of together with domestic waste. Waste key numbers are assigned according to the European Waste Catalogue (EWC) depending on the sector and process type. (2000/532/EG)

Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150111 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers
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)

14.1. UN number:	1950
ADR/RID class:	2
Classification code:	5F
Warning plate	
Hazard No:	23
Hazard label:	2.1



Limited quantity:	LQ2
Tunnel restriction code:	D

Description of the goods

AEROSOLS

Other applicable information (land transport)

Special provisions: 190 - 327 - 625
E0
: 2

Marine transport (IMDG)

14.1. UN number:	1950
IMDG code:	2

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Hazard label: 2, see SP63

IMDG packing group: -
EmS: F-D, S-U
Limited quantity: See SP277

Description of the goods

AEROSOLS

Other applicable information (marine transport)

UN 1950 AEROSOLE
Special provisions: 63, 190, 277, 327, 959
E0

Air transport (ICAO)

UN/ID number: 1950
ICAO/IATA-DGR: 2.1
Hazard label: 2.1



Limited quantity Passenger: 30 kg G
IATA-packing instructions - Passenger: 203
IATA-max. quantity - Passenger: 75 kg
IATA-packing instructions - Cargo: 203
IATA-max. quantity - Cargo: 150 kg

Description of the goods

AEROSOLS

Other applicable information (air transport)

UN 1950 AEROSOLE
E0
: Y203
Special provisions: A145 - A153

Other applicable information

Kurier-, Express- und Paketdienste bis zu höchstens 1.000cm³ je Gefäß und höchstens 10.000 cm³ je Versandstück

15. Regulatory information

Labelling

Danger symbols:

F+ - Extremely flammable; Xi - Irritant; N - Dangerous for the environment



F+ - Extremely flammable



Xi - Irritant



N - Dangerous for the environment

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R phrases

- 12 Extremely flammable.
- 38 Irritating to skin.
- 51 Toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 67 Vapours may cause drowsiness and dizziness.

S phrases

- 23 Do not breathe Aerosol.
- 24 Avoid contact with skin.
- 51 Use only in well-ventilated areas.
- 61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

Special labelling of certain mixtures

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

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; health hazard



Hazard statements

- H224 Extremely flammable liquid and vapour.
- H340 May cause genetic defects.
- H350 May cause cancer.

Precautionary statements

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- 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.
- 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.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P370+P378 In case of fire: Use ... for extinction.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.
- P501 Dispose of contents/container to

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Special labelling of certain mixtures

Contains epoxy constituents. May produce an allergic reaction.

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

Additional information

M044 ("Polyurethane manufacture/isocyanates")
BG code of practice: M017 ("Solvents") (BGI 621, ZH 1/319)
M 053 ("General work safety measures for handling hazardous substances") (GBI 660, ZH 1/471)
BGR 104 (ZH 1/10) ("Explosion protection rules (EX-RL) with some examples")

16. Other information

Full text of R phrases referred to under Sections 2 and 3

- 10 Flammable.
- 11 Highly flammable.
- 12 Extremely flammable.
- 36/37 Irritating to eyes and respiratory system.
- 38 Irritating to skin.
- 45 May cause cancer.
- 46 May cause heritable genetic damage.
- 51 Toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 65 Harmful: may cause lung damage if swallowed.
- 67 Vapours may cause drowsiness and dizziness.

Full text of H statements referred to under Sections 2 and 3

- H224 Extremely flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H340 May cause genetic defects.
- H350 May cause cancer.

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.)