according to Regulation (EC) No 1907/2006

Aluminium powder

Print date: 04.03.2013

Product code: 210160-GHS-2013

Page 1 of 5

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

Identification of the substance or mixture

Aluminium powder

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

GHS:

Hazard categories: Flammable liquid: Flam. Liq. 2 Hazard Statements: Highly flammable liquid and vapour.

3. Composition/information on ingredients

Chemical characterization (Mixture)

4. First aid measures

After inhalation

fresh air or oxygen supply Consult a doctor when complaints persist.

After contact with skin

Wash off containated area with water.

After contact with eyes

If the product comes into contact with the eyes, immediately rinse the open eyes with copious amounts of water for at least ten minutes. Afterwards consult an eye specialist.

Advice to doctor

unknown

5. Fire-fighting measures

Suitable extinguishing media

Dry sand.

Extinguishing media which must not be used for safety reasons

Water. Carbon dioxide (CO2). Foam.

Special protective equipment for fire-fighters

Flame-retardant clothes. Wear filter mask/respiratory equipment.

according to Regulation (EC) No 1907/2006

Aluminium powder

Print date: 04.03.2013

Product code: 210160-GHS-2013

Page 2 of 5

6. Accidental release measures

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Dispose of contaminated material as § 13 waste.

Methods for cleaning up/taking up

Remove carefully with a mechanical means (e.g. with a clean PE shovel). Do not rinse down with water.

7. Handling and storage

Handling

Advice on safe handling

Keep receptacles tightly sealed.

Advice on protection against fire and explosion

Keep away from ignition sources and naked flames. Store product in sealed receptacles. In the original container at room temperature.

Further information on handling

Only use anti-static equipped (spark-free) tools.

Storage

Requirements for storage rooms and vessels

Keep in well sealed receptacles at a cool, dry location. Keep separate from other hazardous and incompatible substances. In the original container at room temperature. Keep away from ignition sources and naked flames.

Advice on storage compatibility

Keep away from oxidising agents. Keep awy from: acid. alkalis, diluted.

8. Exposure controls/personal protection

Exposure limit values

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
7429-90-5	Aluminium metal, respirable dust	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

8.2. Exposure controls

9. Physical and chemical p	roperties	
General information		
Physical state:	Powder	
Colour:	silver grey	
Odour:	neutral	
Important health, safety and e	nvironmental information	
		Test method
Changes in the physical st	ate	
Melting point:		660 °C
Boiling point:		2500 °C

according to Regulation (EC) No 1907/2006

	Aluminium powder	
Print date: 04.03.2013	Product code: 210160-GHS-2013	Page 3 of 5
Flash point:	750 °C	
Lower explosion limits:	30	
Density (at 20 °C):	2,7 g/cm³	
Water solubility:	insoluble in water	
9.2. Other information		
Auto-ignition temperature	550	
Solid:		
Gas:		
Ignition temperature:	> 600 °C	

10. Stability and reactivity

10.4. Conditions to avoid

Keep away from heat and ignition sources.

Materials to avoid

Water. strong acid and alikalis reaction with strong acids, alkaline substances, amines, and oxidising agents to form hydrogen

10.6. Hazardous decomposition products

releases ignitable hydrogen gas

11. Toxicological information

Acute toxicity

Oral LD50 2000 mg/kg (rat) Inhalativ LC50/4 h 888mg/l (rat)

Irritation and corrosivity

No irritation

12. Ecological information

Mobility

not determined

12.3. Bioaccumulative potential

not determined

12.6. Other adverse effects

unknown

13. Disposal considerations

Waste disposal number of waste from residues/unused products

120104 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; non-ferrous metal dust and particles

Waste disposal number of used product

120104 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; non-ferrous metal dust and particles

Waste disposal number of contaminated packaging

according to Regulation (EC) No 1907/2006

Print date: 04.03.2013 Product code: 210/160-GHS-2013 Pgg 4 of 12014 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and platelsies; non-ferrous metal dust and particles A Transport Information mone / none Warning plate Other applicable information (land transport) Lt. EC-SDB kein Gefahrgut Charge of Linker Colspan="2">Colspan="2" Colspan="2">Colspan="2" Colspan="2"		according to Regulation (EC) No 1907/2006	
12014 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; non-ferrous metal dust and particles 4. Transport information		Aluminium powder	
METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; non-ferrous metal dust and particles A Transport information and transport (ADR/RID) 14.1. UN number:	Print date: 04.03.20	13 Product code: 210160-GHS-2013 Pa	age 4 of
and transport (ADR/RID) 14.1. UN number: none / none Warning plate Chier applicable information (land transport) L. EG-SDB kein Gefahrgut Atrine transport (MDQ) Other applicable information (marine transport) L. EG-SDB kein Gefahrgut Variance transport (ICAO) Other applicable information (air transport) L. EG-SDB kein Gefahrgut Variance transport (ICAO) Other applicable information (air transport) L. EG-SDB kein Gefahrgut Steallatory information L. EG-SDB kein Gefahrgut 5. Regulatory information Danger Plictograms: flame Signal word: Danger Plictograms: flame Variance transport of excitnal/vent/vent/vent/vent/vent/vent/vent/vent	ME	TALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of	
14.1. UN number: none / none Warning plate Other applicable information (land transport) L. EG-SDB kein Gefahrgut Addition transport (IADO) Other applicable information (narine transport) L. EG-SDB kein Gefahrgut Marine transport (ICAO) Other applicable information (air transport) L. EG-SDB kein Gefahrgut Signal word: Labelling Signal word: Danger Pictograms: Tage Pictograms: Tage (Figure Statements) Pictograms: Pictograms:	4. Transport info	rmation	
Warning plate Other applicable information (land transport) Lt: EG-SDB kein Gefahrgut Adrite transport (IMDG) Other applicable information (marine transport) Lt: EG-SDB kein Gefahrgut Other applicable information (land transport) Lt: EG-SDB kein Gefahrgut Other applicable information (lair transport) Lt: EG-SDB kein Gefahrgut Signal word: Lt: EG-SDB kein Gefahrgut Adelling Signal word: Danger Pictograms: fame Adelling Marce of statements H225 Highly flammable liquid and vapour. Precautionary statements P243 Keep away from head/sparks/open flames/hot surfaces No smoking. P243 Ground/bond container and receiving equipment. P244 Use explosion-proof electrical/ventilating/lighting equipment. P243	and transport (AD	R/RID)	
Other applicable information (land transport) Lt. EG-SDB kein Gefahrgut Adrine transport (IMDB) Other applicable information (marine transport) Lt. EG-SDB kein Gefahrgut Karren applicable information (air transport) Lt. EG-SDB kein Gefahrgut Sterapport (IGAO) Other applicable information (air transport) Lt. EG-SDB kein Gefahrgut Sterapport (IGAO) Sterapport (IGAO) Sterapport (IGAO) Babelling Signal word: Danger Pictograms: flame Verapport statements H225 Highly flammable liquid and vapour. P210 Keep container tightly closed. P233 Keep container tightly closed. P241 Use enly non-sparking tools. P242 Use enly non-sparking tools. P243 Take precautionary neasures against static discharge. P243 Take precautionary measures against static discharge. P243 Take precautionary measures against static discharge. P304-P335 FON SKIN (or hair). Remove/Take of immediately all contaminated clothing. Rines exin with water/shower. P370+P3735 In case of fire tiste for extinction P370+P3735 In case of fire tiste for extinction.	14.1. UN number	none / none	
Other applicable information (land transport) Lt. EG-SDB kein Gefahrgut Advice transport (IMOD) Other applicable information (marine transport) Lt. EG-SDB kein Gefahrgut Attransport (ICAO) Other applicable information (air transport) Lt. EG-SDB kein Gefahrgut Advice applicable information (air transport) Lt. EG-SDB kein Gefahrgut Sterne applicable information (air transport) Edition Sterne applicable information (air transport) Signal word: Signal word: Danger Pictograms: flame Hazard statements H225 Highly flammable liquid and vapour. P210 Keep container tightly closed. P233 Keep container and receiving equipment. P241 Use envinon-aparking tools. P243 Teke precautionary measures against static discharge. P304 P3361 HP335 Ico	Warning plate		
Advine transport (IMDC) Dither applicable information (marine transport) Lt. EG-SDB kein Gefahrgut Xir transport (ICAO) Dither applicable information (ir transport) Lt. EG-SDB kein Gefahrgut Xir transport (ICAO) Dither applicable information (ir transport) Lt. EG-SDB kein Gefahrgut Xir transport (ICAO) Xir tege SDB kein Gefahrgut Xir transport (ICAO) Cher applicable information (ir transport) Lt. EG-SDB kein Gefahrgut Xir tege SDB kein SDB kein SDB kein SDB kein SDB kein Kein Kein Kein Kein Kein Kein Kein K	Other applicable		
LL EG-SDB kein Gefahrgut vir transport (ICAO) Other applicable information (air transport) Lt. EG-SDB kein Gefahrgut 5. Regulatory information abelling Signal word: Danger Pictograms: flame Vergeneric Statements H225 Highly flammable liquid and vapour. Precautionary statements H225 Highly flammable liquid and vapour. 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/ventitiating/lighting equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventitiating/lighting equipment. P242 Use only non-sparking tools. P230 Keep container tightly closed. P243 Take precautionary measures against static discharge. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventitiating/lighting equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P240 Wear protective glowes/protective clothing/ley protector/face protection/ P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to Edutoral information		-	
Ari transport (ICAO) Cht: applicable information (air transport) Lt: EG-SDB kein Gefahrgut 5. Regulatory information abelling Signal word: Danger Pictograms: flame Maximum Signal word: Danger Pictograms: flame Pictograms: flame Pictogr			
Other applicable information (air transport). Lt. EG-SDB kein Gefahrgut St. Gegulatory information abelling Signal word: Danger Pictograms: fame Abelling Signal word: Danger Pictograms: fame Abelling Based Statements H225 Highly flammable liquid and vapour. Preceutionary statements P210 Keep away from heat/sparks/open flames/hot surfaces No smoking. P233 Ground/bond container and receiving equipment. 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 glowes/protective clothing/eye protection/face protection. P303+P361+P305 If CON SKIN (on hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P370+P378 In case of fire: Use for extinction. P303+P361+P305 Store in a well-ventilated place. Keep cool. P303+P378 P304+P378 In case of fire: Use for extinction. Dispose of contents/		-	
Lt. EG-SDB kein Gefahrgut IS. Regulatory information abelling Signal word: Danger Pictograms: flame Mage: Signal word: Danger Pictograms: flame Mage: Signal word: Pictograms: flame Pictograms: Hazard statements H225 Highly flammable liquid and vapour. 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. P280 Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 In case of fire: Use for extinction. P403+P235 Store in a well-ventiliated place. Keep cool.		-	
abelling Signal word: Danger Pictograms: flame Vertice flame Vertice Vertice Hazard statements H225 H225 Highly flammable liquid and vapour. Precutionary statements P210 P230 Keep away from heat/sparks/open flames/hot surfaces No smoking. P230 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. P303+P361+P353 IF ON SKIN (or hain): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/contai			
abelling Signal word: Danger Pictograms: flame Vertice flame Vertice Vertice Hazard statements H225 H225 Highly flammable liquid and vapour. Precutionary statements P210 P230 Keep away from heat/sparks/open flames/hot surfaces No smoking. P230 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. P303+P361+P353 IF ON SKIN (or hain): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/contai	5. Regulatory inf	ormation	
Signal word: Danger Pictograms: flame Image: flame Image: flame Image: Image:	aballing		
Signal word: Danger Pictograms: flame Hazard statements H225 Highly flammable liquid and vapour. 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. P243 FON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. With water/shower. With water/shower. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to Rtotional information Lise state state to			
Pictograms: flame Pictograms: flame Visite flame Pictograms: flame Visite flame Hazard statements flame H225 Highly flammable liquid and vapour. Precautionary statements: Para 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. P240 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. P370+P378 In case of fire: Use for extinction. P301+P353 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to Rttotal regulatory information Store in a well-ventilated place. Keep cool.			
Hazard statements H225 Highly flammable liquid and vapour. 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. P260 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. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to National regulatory information Lispose of contents/container to	-	-	
H225Highly flammable liquid and vapour.Precautionary statementsP210Keep away from heat/sparks/open flames/hot surfaces No smoking.P233Keep container tightly closed.P240Ground/bond container and receiving equipment.P241Use explosion-proof electrical/ventilating/lighting equipment.P242Use only non-sparking tools.P243Take precautionary measures against static discharge.P280Wear protective gloves/protective clothing/eye protection/face protection.P303+P361+P353IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.P370+P378In case of fire: Use for extinction.P403+P235Store in a well-ventilated place. Keep cool.P501Dispose of contents/container toNational information			
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. 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. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to Vational regulatory information Additional information			
P210Keep away from heat/sparks/open flames/hot surfaces No smoking.P233Keep container tightly closed.P240Ground/bond container and receiving equipment.P241Use explosion-proof electrical/ventilating/lighting equipment.P242Use only non-sparking tools.P243Take precautionary measures against static discharge.P280Wear protective gloves/protective clothing/eye protection/face protection.P303+P361+P353IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.P370+P378In case of fire: Use for extinction.P403+P235Store in a well-ventilated place. Keep cool.P501Dispose of contents/container toHational regulatory informationAdditional information	Precautionary st		
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. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to National regulatory information			
P241Use explosion-proof electrical/ventilating/lighting equipment.P242Use only non-sparking tools.P243Take precautionary measures against static discharge.P280Wear protective gloves/protective clothing/eye protection/face protection.P303+P361+P353IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.P370+P378In case of fire: Use for extinction.P403+P235Store in a well-ventilated place. Keep cool.P501Dispose of contents/container toVational regulatory informationAdditional information	P233	Keep container tightly closed.	
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. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to Vational regulatory information Additional information			
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. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to National regulatory information Additional information			
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. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to National regulatory information Additional information			
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to National regulatory information Additional information			
with water/shower. P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to National regulatory information Additional information			
P370+P378 In case of fire: Use for extinction. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to National regulatory information Additional information	P3U3+P361		
P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to National regulatory information Additional information	P370+P378		
P501 Dispose of contents/container to National regulatory information Additional information			
Additional information			
Additional information			
	EU-	Stomrichtline RL 67/548/EWG	

GB - EN

Revision date: 21.02.2013

Revision No: 1,00

according to Regulation (EC) No 1907/2006

Aluminium powder

Print date: 04.03.2013

Product code: 210160-GHS-2013

Page 5 of 5

16. Other information

Full text of H statements referred to under Sections 2 and 3 H225

Highly flammable liquid and vapour.

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