#### according to Regulation No. 1907/2006

Created on: Template Replaces SDS: -Version: 1

# **Metal Powder 253MA**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name: Metal Powder 253MA

Formulation number: 4835 **UFI: K4DE-C01Y-K00Q-4X15** 

# 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:

Particle size Identified use

0μm - 15μm Metal Injection Moulding (MIM), Binder Jetting (BJ)

15μm – 60μm Powder Bed Fusion (3D-PBF), Selective Laser Melting (3D-SLM) 60μm – 500μm Hot Isostatic Pressing (HIP), Laser Melting Deposition (LMD)

Uses advised against:

All other uses are strongly discouraged.

#### 1.3 Details of the supplier of the safety data sheet

Supplier

Company name: Outokumpu Nirosta GmbH Street: Oberschlesienstraße 16

City: 47807 Krefeld
Responsible department: Powder Business

Email: metalpowder@outokumpu.com

# 1.4 Emergency telephone number

For medical advice:

# **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

Classification according to Regulation No 1272/2008.

#### **GHS - Classification**

#### according to Regulation No. 1907/2006

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# **Metal Powder 253MA**

Skin sensitation, hazard category 1
Carcinogenicity, hazard category 1B
Carcinogenicity, hazard category 2
Specific target organ toxicity — repeated exposure, hazard category 1

#### **Hazardous Statement:**

H317 May cause an allergic skin reaction

H350 May cause cancer

H351 Suspected of causing cancer

H372 Causes damage to organs through prolonged or repeated exposure

#### 2.2 Label elements

Signal word: **Danger** 

Pictogram: GHS07, GHS08



### **Hazardous Statement:**

H317 May cause an allergic skin reaction

H350 May cause cancer

H351 Suspected of causing cancer

H372 Causes damage to organs through prolonged or repeated exposure

#### **Precautionary Statement:**

P201 Obtain special instructions before use.

P260 Do not breathe dust/fume/gas.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container to waste disposal in accordance with local/regional/national regulations.

Hazard-determining components: Nickel, Cobalt

#### 2.3 Other hazards

Formation of explosive dust/air mixture possible. The ingredients of this product do not meet the criteria for classification as PBT or vPvB.

Silicon, sulphur, iron and copper are known to have nanoforms. Nickel and cobalt are CMR substances. Nickel and cobalt are skin sensitising, cobalt is additionally respiratory sensitising. Nickel is a REACH Annex XVII listed substance. Copper is suspected of having endocrine-disrupting properties.

# according to Regulation No. 1907/2006



# **Metal Powder 253MA**

# **SECTION 3: Composition/information on ingredients**

# 3.2 Mixture

Component	Max. amount [%]	CAS-No. EG-No. Index-No.	H-codes	Hazard Classes	
Iron	61,204- 66,504	7439-89-6	-	Nanoform	
Chromium	20-22	7440-47-3 231-157-5	-	-	
Nickel	10-12	7440-02-0 231-111-4 028-002-01-4	H317 H351 H372 H412	Skin Sens. 1 Carc. 2 STOT RE 1 Aquatic Chronic 3 Suspected Carcinogen Skin Sensitising REACH Annex XVII	
Silicon	1,4-2,5	7440-21-3 231-130-8	-	Nanoform	
Manganese	1	7439-96-5 231-105-1	-	-	
Carbon	0,05- 0,12	7440-44-0 231-153-3	H319 H335	Eye Irrit. 2 STOT SE 3	
Cobalt	0,108	7440-48-4 231-158-0 027-001-00-9	H317 H334 H341 H350 H360F H413	Skin Sens. 1 Resp. Sens. 1 Muta. 2 Carc. 1B Repr. 1B Aquatic Chronic 4 Suspected Mutagen Reproductive Toxicity Skin sensitising Respiratory sensitising	
Phosphorus	0,045	7723-14-0 918-594-3	H228 H412	Flam. Sol. 1 Aquatic Chronic 3	
Sulphur	0,015	7704-34-9 231-722-6	H315	Skin Irrit. 2 Nanoform	

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# **Metal Powder 253MA**

Component	Max.	CAS-No. EG-No.	H-codes	Hazard Classes	
Component	[%]	Index-No.		nazaiù Ciasses	
		016-094-00-1			
Molybdenum	0,32	7439-98-7		_	
Widiybaellalli	0,32	231-107-2		_	
Nitrogen	0,12-0,2	7727-37-9			
Millogen	0,12-0,2	231-783-9		<u> </u>	
Cerium	0,03-	7440-45-1	H228	Flam. Sol. 1	
Cerium	0,08	231-154-9	11220		
Vanadium	0,06	7440-62-2	_	_	
Valiaululli	0,00	231-171-1			
Aluminium	0,01	7429-90-5	H250	Pyr. Sol. 1	
	0,01	231-072-3	H261	Water-react. 2	
		013-001-00-6	11201	Water-react. 2	
Titanium	0,004	7440-32-6	_		
	0,004	231-142-3	_		
Copper				Aquatic Chronic 2	
	0,33	7440-50-8		Suspected	
	0,33	231-159-6	H411	Endocrine	
		029-024-00-X		Disruptor,	
				Nanoform	
Niobium	0,004	7440-03-1		_	
MIODIUIII	0,004	231-113-5	-		

Full text of H-phrases: see Section 16.

### **Further information**

Silicon, sulphur, iron and copper are known to have nanoforms. Nickel and cobalt are CMR substances. Nickel and cobalt are skin sensitising, cobalt is additionally respiratory sensitising. Nickel is a REACH Annex XVII listed substance. Copper is suspected of having endocrine-disrupting properties.

#### **SECTION 4: First aid measures**

## 4.1 Description of first aid measures

#### **General notes**

First aiders: Ensure self-protection. IF exposed or if affected: Seek medical advice/attention. Remove affected person from danger zone and lie them down.

#### After inhalation

IF INHALED: Remove the person to fresh air and ensure unobstructed breathing. Consult a doctor if

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# **Metal Powder 253MA**

symptoms occur.

#### After skin contact

IF ON SKIN: Wash immediately with plenty of water and mild soap. If skin irritation occurs: Seek medical advice/attention.

#### After eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove any contact lenses if possible. Continue to rinse. In case of persistent symptoms consult a doctor.

#### After ingestion

Do NOT induce vomiting. Rinse out the mouth. Never give anything by mouth to an unconscious person. Seek medical advice/attention.

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

Dust may irritate the eyes and the respiratory tract. There is a general risk of sensitisation of the skin and respiratory tract.

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

#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

The mixture itself is not flammable. Adapt fire-fighting measures to the surroundings.

#### Suitable extinguishing media

Metal fire extinguishing powder, dry sand, sodium chloride **Extinguishing media which must not be used for safety reasons** Water, CO2

# 5.2 Special hazards arising from the substance or mixture

In case of fire, formation of toxic gases, sulphur oxides and metal oxides possible.

#### 5.3 Advice for firefighters

Adapt fire-fighting measures to the environment. Do not take any measures that involve personal risk or have not been adequately trained. If safe to do so: recover the container from the danger zone. Wear self-contained breathing apparatus (SCBA) with full face shield operating in positive pressure mode. Wear appropriate protective clothing/apparel that covers the entire body.

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# **Metal Powder 253MA**

#### **SECTION 6: Accidental release measures**

# 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective gloves/protective clothing/eye protection/face protection. Remove contaminated clothing and wash before reuse. Ensure good ventilation. Avoid dust formation. Evacuate non-involved personnel from the area.

#### 6.2 Environmental precautions

Avoid release into the environment. Do not allow to enter water or drains. In case of uncontrolled release of larger quantities of the material into the environment, inform competent authorities and initiate appropriate environmental protection measures.

#### 6.3 Methods and material for containment and cleaning up

Contain the spillage. Collect spilled material mechanically and place in a suitable waste container.

#### 6.4 Reference to other sections

For information on safe handling see section 7.

For information on personal protection see section 8.

For information on disposal see section 13.

#### **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

#### Advice on safe handling

Do not eat, drink, smoke or blow your nose when handling the product. Prevent contact with skin, eyes and clothing. Observe general workplace hygiene. Wash hands with soap and water before breaks, at the end of work and immediately after handling. Remove contaminated clothing and shoes immediately. Check gloves regularly for wear, tear and contamination and replace accordingly. Keep away from food, animal feed and drinks. Never store in containers that are used for food or beverages or can be mistaken for such. Clean work areas thoroughly on a regular basis. Wear protective gloves/protective clothing/eye protection/face protection (see section 8.2). Remove contaminated clothing and wash before reuse.

#### Advice on fire and explosion protection

Avoid accumulation and swirling up of dust. Collect dust mechanically (e.g. by industrial hoover).

#### 7.2 Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and containers

Store only in the original container.

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Store container in a well-ventilated and dark place. Keep containers tightly closed. Store in places without fire hazard, away from spark sources, as well as ignition and heat sources. Protect from direct sunlight. Store locked away. Keep away from flammable materials. Electrical equipment in storage areas should be adapted to the risk of formation of hazardous explosive atmospheres. Keep away from food, drinks and animal feed. Observe and comply with all relevant local and national regulations on storage of containers.

#### Advice on combined storage

Store separately from oxidising agents.

# **Further information on storage conditions**

Store in a dry place.

## 7.3 Specific end use(s)

See section 1.2.

# SECTION 8: Exposure controls/personal protection

# 8.1 Control parameters

According to EH40/2005 Workplace exposure limits

			Workplace e	posure limit		Comments
Substance CAS no.		Long-term exposure limit (8-hr TWA reference period)		Short-term exposure limit (15-minute reference period)		The Carc, Sen and Sk notations
		ppm	mg/m³	ppm	mg/m³	are not exhaustive
Iron salts (as Fe)		-	1	-	2	
Chromium	7440-47-3	-	0.5	-	-	
Nickel and its inorganic compounds (except nickel tetracarbonyl): water-soluble nickel comp. (as Ni) nickel and water-		-	0.1	-	-	Sk, Carc (nickel oxides and sulphides) Sen (nickel sulphate)
insoluble nickel comp. (as Ni)		-	0.5	-	-	

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# **Metal Powder 253MA**

	Workplace exposure limit Con					Comments
Substance	CAS no.	Long-term exposure limit (8-hr TWA reference period)		Short-term exposure limit (15-minute reference period)		The Carc, Sen and Sk notations
		ppm	mg/m³	ppm	mg/m³	are not exhaustive
Silicon Inhalable dust Respirable dust	7440-21-3	-	10 4	-	-	
Manganese and its inorganic compounds (as Mn) Inhalable fract. Respirable fract.		- -	0.2 0.05	-	-	
Carbon (Graphite) Inhalable dust Respirable dust	7440-44-0	-	10 4	-		
Cobalt and Cobalt compounds (as Co)		-	0.1	-	-	Carc (cobalt dichloride and sulphate), Sen
Phosphorus, yellow	7723-14-0	-	0.1	-	0.3	
Molybdenum compounds (as Mo) soluble comp. insoluble comp.		-	5 10	-	10 20	
Aluminium metal inhalable dust respirable dust	7429-90-5	-	10 4	-	-	
Copper fume (as Cu) Copper and	7440-50-8	-	0.2	-	2	
copper una	l	L				

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# **Metal Powder 253MA**

		Workplace exposure limit				Comments
		Long-term exposure limit		Short-term exposure		The Carc,
Substance CAS no.		(8-hr TWA reference		limit (15-minute		Sen and Sk
Substance	CAS IIO.	period)		reference period)		notations
		nnm	mg/m³	ppm	mg/m³	are not
		ppm	ilig/ili	ppiii	ilig/ili	exhaustive
compounds:						
dust and mists						
(as Cu)						

#### 8.2 Exposure controls

#### **Protective and hygiene measures**

General precautions to be observed when handling the product. Avoid contact with eyes. Avoid contact with skin. Wash hands before breaks and at the end of work. Avoid dust formation. Technical protective measures always take precedence over all other personal protective measures. The use of mechanical equipment such as mechanical extraction methods always take precedence over manual work.

#### **Respiratory protection**

In case of dust formation: Wear respiratory protection against dust particles. Observe maximum wearing times and manufacturer's instructions for use.

# **Hand protection**

Use gloves made of nitrile rubber, butyl rubber or PVC. The glove material must be impermeable and resistant to the substance. The choice of a suitable glove depends not only on the material but also on other quality features and varies from manufacturer to manufacturer. When selecting gloves, mechanical risks and cut hazards must also be taken into account.

# **Eye protection**

Select safety goggles with side shield or full safety goggles. In case of high risk additionally wear face shield.

### **Further skin protection**

Wear suitable long-sleeved protective clothing when working. Full protective suit, if necessary. Protective equipment must be selected in its design depending on the concentration and quantity of hazardous substances specific to the workplace.

#### **Environmental exposure controls**

Observe national emission regulations. Prevent product from entering drains, water courses and soil.

## **SECTION 9: Physical and chemical properties**

#### according to Regulation No. 1907/2006

Created on: Template Replaces SDS: -Version: 1

# **Metal Powder 253MA**

# 9.1 Information on basic physical and chemical properties

Appearance: Powder Colour Grey Aggregate state Solid

Partikeleigenschaften: No data available.

Odour:
odour threshold:
pH:
Not applicable.
Melting point/freezing point:
1300-1600 °C
Initial boiling point and boiling
>2800 °C

range:

Flashpoint: No data available.

Evaporation rate:

Flammability (solid, gaseous): No data available. Upper/Lower flammability and No data available.

explosion limits:

Vapor pressure:

Vapor density:

density:

Solubility (in water):

Not applicable.

7.7-8.1 g/cm³

Insoluble

Partition coefficient: n-octanol / No data available.

water:

Auto ignition temperature: No data available.

Solid:

Decomposition temperature: No data available. Viscosity: Not applicable.

### 9.2 Other information

# 9.2.1. Information with regard to physical hazard classes

Explosive properties:

Oxidizing properties:

Self-heating properties:

Bulk density:

Ignition temperature:

Lower explosion limit:

Flammable solid

No data available.

#### 9.2.2. Other safety characteristics

Mechanical sensitivity: No data available.

Self-accelerating polymerisation

temperature: Not applicable.

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# **Metal Powder 253MA**

Formation of explosible dust/air

mixtures: No data available. Acid/alkaline reserve: Not applicable. Evaporation rate: Not applicable. Miscibility: No data available. Conductivity: No data available. Corrosiveness: No data available. Not applicable. Gas group: Redox potential: No data available. Radical formation potential: No data available. Photocatalytic properties: No data available.

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Not reactive under normal and foreseeable conditions.

# 10.2 Chemical stability

Stable under normal and foreseeable conditions.

#### 10.3 Possibility of hazardous reactions

No hazardous reactions are expected under normal and foreseeable conditions.

#### 10.4 Conditions to avoid

Ignition sources, open light.

#### 10.5 Incompatible materials

Strong oxidising agents, acids, bases, halogens.

# 10.6 Hazardous decomposition products

In case of fire, formation of toxic gases, sulphur oxides and metal oxides possible.

### **SECTION 11: Toxicological information**

# 11.1 Information on hazard classes as defined in Regulation No 1272/2008

# **Toxicological testing**

# **Acute toxicity**

#### according to Regulation No. 1907/2006

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# **Metal Powder 253MA**

Acute toxicity Oral:

Iron LD50 oral rat

Value: 30000 mg/kg

Silicon LD50 oral rat

Value: 3160 mg/kg

Manganese LD50 oral rat

Value: 9000 mg/kg

value. 9000 mg/kg

LD50 oral rat

Phosphorus Value: > 15000 mg/kg

LD50 oral rat

Sulphur Value: > 2 000 mg/kg

raider = 2 ded iiig/

Chrome LD50 oral rat Value: > 5000mg/kg

LD50 oral rat

Cobalt Value: 6171 mg/kg

# Skin corrosion / irritation

Based on available data, the classification criteria are not met.

#### Serious eye damage / irritation

Based on available data, the classification criteria are not met.

#### Sensitization of respiratory tract / skin

The product is skin sensitising. In principle, there is also a risk of respiratory sensitisation.

### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

### Carcinogenicity

The product is classified as a carcinogen.

#### Reproductive toxicity

Based on available data, the classification criteria are not met.

#### Specific target organ toxicity single exposure

May irritate the eyes and respiratory tract.

# Specific target organ toxicity repeated exposure

Causes damage to organs through prolonged or repeated exposure.

### **Aspiration risk**

Based on available data, the classification criteria are not met.

#### 11.2 Information on other hazards

#### according to Regulation No. 1907/2006

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# **Metal Powder 253MA**

None known.

#### 11.2.1. Endocrine disrupting properties

Copper is suspected of having endocrine-disrupting properties.

#### 11.2.2. Other information

No data available.

# **SECTION 12: Ecological information**

## 12.1 Toxicity

## Acute toxicity fish:

LC50 fish (96 hours)

Phosphorus Minimum value: 0.002 mg/l

Maximum value: 0.154 mg/l Median value: 0.006 mg/l

LC50 fish (96 hours)

Chrome Minimum value: 13.9 mg/l

Maximum value: 210 mg/l Median value: 40.5 mg/l LC50 fish (96 hours)

Molybdenum Minimum value: 800 mg/l

Maximum value: 1320 mg/l Median value: 1060 mg/l

LC50 fish (96 hours)

Nickel Minimum value: 0.0000475 mg/l

Maximum value: 350 mg/l

Median value: 40 mg/l

LC50 (72 h) 732 - 27 800 µg/L LC50 (48 h) 1.398 - 30.7 mg/L

Vanadium LC50 (48 h) 1.398 - 30.7 mg/l

LC50 (24 h) 9.005 - 44 mg/L

Cobalt LC50 fish (4 days): 1.512 - 85.3 mg/L

LC50 fish (96 hours)

Aluminium Minimum value: 0.12 mg/l

Maximum value: 5.2 mg/l Median value: 1.55 mg/l

Titanium LC50 fish (48 h): 10 mg/L

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# **Metal Powder 253MA**

LC50 fish (96 hours)

Minimum value: 0.0087 mg/l Copper Maximum value: 21 mg/l

Median value: 0.665 mg/l

Cerium LL50 (4 days): 100 mg/L

Acute toxicity Algae:

EC50 algae (72 h)

Minimum value: 0.1 mg/l Chrome

Maximum value: 17.8 mg/l Median value: 8.75 mg/l

Vanadium EC50 (72 h) 989.4 - 8 000 μg/L

EC50 for freshwater algae: 36.6 mg/L

**Titanium** 

EC50 algae (72 hours) Minimum value: 0.01 mg/l Maximum value: 0.91 mg/l Median value: 0.57 mg/l

EC50 algae (96 hours)

Minimum value: 0.04 mg/l Copper

> Maximum value: 9.2 mg/l Median value: 7.9 mg/l

Cerium EL50 (72 h): 100 mg/L

Acute toxicity Crustaceans:

EC50 Crustaceans (48 hours)

Minimum value: 40 mg/l Manganese

Maximum value: 40 mg/l Median value: 40 mg/l EC50 Crustaceans (48 hours)

Minimum value: 0.03 mg/l

Phosphorus Maximum value: 0.25 mg/l

> Median value: 0.14 mg/l LC50 Crustaceans (48 hours) Minimum value: 0.022 mg/l Maximum value: 100 mg/l

Median value: 0.53 mg/l

Chrome

EC50 Crustaceans (48 hours) Minimum value: 0.07 mg/l Maximum value: 0.07 mg/l Median value: 0.07 mg/l

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# **Metal Powder 253MA**

Nickel LC50 Crustaceans (48 hours)

Minimum value: 1.28 mg/l Maximum value: 9.28 mg/l Median value: 8.85 mg/l

EC50 Crustaceans (48 hours)
Minimum value: 1 mg/l
Maximum value: 1 mg/l
Median value: 1 mg/l
LC50 Crustaceans (48 hours)
Minimum value: 0.000072 mg/l
Maximum value: 5.36 mg/l
Median value: 0.044 mg/l

Copper

EC50 Crustaceans (48 hours)
Minimum value: 0.0016 mg/l
Maximum value: 0.34 mg/l
Median value: 0.02 mg/l

Cerium LL50 (48 h): 100 mg/L

# 12.2 Persistence and degradability

No data available.

#### 12.3 Bioaccumulative potential

No data available.

# 12.4 Mobility in soil

No data available.

#### 12.5 Results of PBT and vPvB assessment

The ingredients of the product do not meet the criteria for classification as PBT or vPvB.

# 12.6. Endocrine disrupting properties

Copper is suspected of having endocrine-disrupting properties.

#### 12.7 Other adverse effects

No data available.

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### according to Regulation No. 1907/2006

Created on: Template Replaces SDS: -Version: 1

# **Metal Powder 253MA**

#### **General information**

Waste disposal must be carried out in accordance with national and local regulations. Avoid release into the environment.

### Contaminated packaging

Contaminated packaging must be treated in the same way as the product itself. Do not incinerate empty containers or treat them with cutting torches.

#### Waste code

The assignment of a waste code depends on the intended use. The concrete determination must therefore be made by the waste producer in consultation with the regional waste management company.

## **SECTION 14: Transport information**

#### 14.1 UN number

Non dangerous goods according to ADR requirements.

#### 14.2 UN proper shipping name

Not applicable.

# 14.3 Transport hazard class(es)

Not applicable.

#### 14.4 Packaging group

Not restricted.

#### 14.5 Environmental hazards

None.

# 14.6 Special precautions for user

For information on safe handling see section 7.

For information on personal protection see section 8.

For information on disposal see section 13.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

### **SECTION 15: Regulatory information**

#### according to Regulation No. 1907/2006

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# **Metal Powder 253MA**

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

#### International information

European Agreement concerning the International Carriage of Dangerous Goods by Road (Accord européen relatif au transport international des marchandises Dangereuses par Route), ADR.

### **National legislation**

UK-REACH Regulation GB-CLP Regulation

EH40/2005 Workplace exposure limits, 2020

#### **REACH ANNEX XVII:**

Chemical name	CAS no.
Nickel	7440-02-0

All national and local legislation and regulations must be complied with.

#### 15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

## **SECTION 16: Other information**

## Changes to the previous version

Version 1 – creation –

#### References to key literature and data sources

GESTIS – International limit values for chemical agents (database). http://prevent.se (database).

### Phrase meaning

Aquatic Chronic 2 Hazardous to the aquatic environment — Chronic hazard category 2
Aquatic Chronic 3 Hazardous to the aquatic environment — Chronic hazard category 3
Aquatic Chronic 4 Hazardous to the aquatic environment — Chronic hazard category 4
Carc. 1B Carcinogenicity, hazard category 1B

Carc. 2 Carcinogenicity, hazard category 2

Eye Irrit. 2 Eye irritation, hazard category 2

Flam. Sol. 1 Flammable solids, hazard category 1

Muta. 2 Germ cell mutagenicity, hazard category 2

Pyr. Sol. 1 Pyrophoric solids, hazard category 1

Repr. 1B Resp. Sens. 1 Respiratory sensitation, hazard category 1

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# **Metal Powder 253MA**

Skin Irrit. 2	Skin irritation, hazard category 2
Skin Sens. 1	Skin sensitation, hazard category 1
STOT RE 1	Specific target organ toxicity — repeated exposure, hazard category 1
STOT SE 3	Specific target organ toxicity — single exposure, hazard category 3
Water-react. 2	Substance or mixture which in contact with water emits flammable gas,
	hazard category 2
H228	Flammable solid
H250	Catches fire spontaneously if exposed to air
H261	In contact with water releases flammable gas
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H341	Suspected of causing genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H360F	May damage fertility.
H372	Causes damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

# **Acronyms**

ADR Accord européen relatif au transport international des marchandises Dangereuses

par Route (European Agreement concerning the International Carriage of Dangerous

Goods by Road)

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging

EC European Communites
EWC European Waste Catalogue

IATA International Air Transport Association

IBC Intermediate Bulk Container

IMDG International Maritime Code for Dangerous Goods

IMO International Maritime Organization

LC50 Lethal Concentration 50 %

LD50 Lethal Dose 50 %

PBT persistent, bioaccumulative and toxic

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

UN United Nations

vPvB very persistent and very bioaccumulative

#### **Further information**

# according to Regulation No. 1907/2006

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# **Metal Powder 253MA**

The information provided in this safety data sheet is intended to describe the product with regard to the required safety precautions. They are not intended to assure any particular properties and are based on our present knowledge.