

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Issue date: 5/11/2022 Version: 2.0

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

1.1. Product identifier

Product form : Mixture

Trade name : EOS ToolSteel 1.2709

Product code : 9011-0042
Type of product : Alloy,Powder

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

1.2.1. Relevant identified uses

Main use category : Industrial use

Use of the substance/mixture : Maraging Steel for DMLS processes in EOS M systems

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Electro Optical Systems Finland Oy Lemminkäisenkatu 36 20520 Turku FINLAND

T +358 (0) 20 765 9144/9147 - F +358 (0) 20 765 9141

MSDSInfo@eos.info - https://www.eos.info/

1.4. Emergency telephone number

Emergency number : +49 (0) 89 / 893 36 - 0 (8 am - 5 pm);

+49 (0) 89 / 893 36 - 151 (Mon-Thurs 9 am - 12 pm & 1 pm - 6 pm; Fri 1 pm - 4 pm (CET))

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4

Respiratory sensitisation, Category 1

Skin sensitisation, Category 1

H317

Germ cell mutagenicity, Category 2

H341

Carcinogenicity, Category 1B

H350

Reproductive toxicity, Category 1B

H360F

Specific target organ toxicity – Repeated exposure, Category 1 H372

Hazardous to the aquatic environment – Acute Hazard, Category 1 H400

Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411

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

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)







GHS07

GHS08

GHS09

Signal word (CLP) : Danger Contains : Nickel, Cobalt

Hazard statements (CLP) : H302 - Harmful if swallowed.

H317 - May cause an allergic skin reaction.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H341 - Suspected of causing genetic defects.

H350 - May cause cancer. H360F - May damage fertility.

H372 - Causes damage to organs through prolonged or repeated exposure.

H411 - Toxic to aquatic life with long lasting effects : P201 - Obtain special instructions before use.

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

2.3. Other hazards

Precautionary statements (CLP)

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier		Classification according to Regulation (EC) No. 1272/2008 [CLP]
Iron	CAS-No.: 7439-89-6 EC-No.: 215-168-2; 231-096-4 REACH-No.: 01-2119462838-24	63 – 67.7	Not classified
Nickel	CAS-No.: 7440-02-0 EC-No.: 231-111-4 EC Index-No.: 028-002-00-7 REACH-No.: 01-2119438727-29	18 – 19	Carc. 2, H351 STOT RE 1, H372 Skin Sens. 1, H317 Aquatic Chronic 3, H412

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cobalt	CAS-No.: 7440-48-4 EC-No.: 231-158-0 EC Index-No.: 027-001-00-9 REACH-No: 01-2119517392-44	8.5 – 9.5	Eye Irrit. 2, H319 Acute Tox. 4, H302 Resp. Sens. 1, H334 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 Repr. 1B, H360F Aquatic Acute 1, H400 M-factor: 10 Aquatic Chronic 1, H410 M-factor: 1
Molybdenum	CAS-No.: 7439-98-7 EC-No.: 231-107-2 REACH-No.: 01-2119472304-43	4.6 – 5.2	Not classified

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

SECTION 4: First aid measures

4.1. Description of first aid measures

•	
First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of water/ If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after indestion	: Rinse mouth, Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects : Suspected of causing genetic defects. Suspected of causing cancer. May damage fertility.

May cause damage to organs through prolonged or repeated exposure.

Symptoms/effects after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Sand. Special powder for metal fires. Unsuitable extinguishing media : Carbon dioxide (CO2). Water.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Fine dust clouds may form flammable/explosive mixtures with air.

Explosion hazard : Stable at ambient temperature and under normal conditions of use.

Hazardous decomposition products in case of fire : Carbon oxides (CO and CO2). Molybdenum trioxide.

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5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering

the environment. Have fire-extinguishers in readiness before opening containers.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove all sources of ignition. No open flames, no sparks, and no smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

Measures in case of dust release : Avoid breathing dust, mist or spray. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle uncleaned empty containers as full ones. Keep away from sources of ignition - No

smoking.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust, mist or spray. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash

contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

: Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Store in a closed container. Store in a dry place.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Storage conditions

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

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United Kingdom - Occupational Exposure Limits		
Local name	Molybdenum	
WEL TWA (OEL TWA) [1]	10 mg/m³ insoluble compounds (as Mo) 5 mg/m³ soluble compounds (as Mo)	
WEL STEL (OEL STEL)	20 mg/m³ insoluble compounds (as Mo) 10 mg/m³ soluble compounds (as Mo)	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	
Nickel (7440-02-0)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Nickel metal	
IOEL TWA	0.005 mg/m³ (respirable fraction)	
Remark	(Year of adoption 2011)	
Regulatory reference	SCOEL Recommendations	
EU - Biological Limit Value (BLV)		
Local name	Nickel and nickel compounds	
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs	
United Kingdom - Occupational Exposure Limits		
Local name	Nickel	
WEL TWA (OEL TWA) [1]	0.1 mg/m³ and its inorganic compounds (except nickel tetracarbonyl): water-soluble nickel compounds (as Ni) 0.5 mg/m³ and its inorganic compounds (except nickel tetracarbonyl): nickel and water insoluble nickel compounds (as Ni)	
WEL STEL (OEL STEL)	1.5 mg/m³ (calculated)	
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity), Carc (Capable of causing cancer and/or heritable genetic damage (nickel oxides and sulphides)), Sen (Capable of causing occupational asthma (nickel sulphate))	
WEL chemical category	Potential for cutaneous absorption	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	
Cobalt (7440-48-4)		
United Kingdom - Occupational Exposure Limits		
WEL TWA (OEL TWA) [1]	0.1 mg/m³	
WEL STEL (OEL STEL)	0.3 mg/m³ (calculated)	
Molybdenum (7439-98-7)		
United Kingdom - Occupational Exposure Limits		
Local name	Molybdenum	
WEL TWA (OEL TWA) [1]	10 mg/m³ insoluble compounds (as Mo) 5 mg/m³ soluble compounds (as Mo)	
WEL STEL (OEL STEL)	20 mg/m³ insoluble compounds (as Mo) 10 mg/m³ soluble compounds (as Mo)	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

8.1.2. Recommended monitoring procedures

No additional information available

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8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

DNEL/DMEL (Workers) Nickel		
Acute - systemic effects, inhalation	680 mg/m³ Nickel	
Acute - local effects, inhalation	4 mg/m³ Nickel	
Long-term - local effects, dermal	0,035 mg/cm² Nickel	
Long-term - systemic effects, inhalation	0,05 mg/m³ Nickel	
Long-term - local effects, inhalation	0,05 mg/m³ Nickel	
DNEL/DMEL (Workers) Cobalt		
Long-term – systemic effects, inhalation	0.04 mg/m³ Cobalt	
DNEL/DMEL (Consumer)		
Long-term – local effects, inhalation	0.0063 mg/m³ Cobalt	
Long-term – systemic effects, oral	0.0095 mg/kg/day Cobalt	
PNEC (Water)		
PNEC aqua (freshwater)	0.00051 mg/l Cobalt	
PNEC aqua (marine water)	0.00236 mg/l Cobalt	
PNEC (Sediment)		
PNEC sediment (freshwater)	9.5 mg/kg dwt Cobalt	
PNEC sediment (marine water)	9.5 mg/kg dwt Cobalt	
PNEC (Soil)		
PNEC soil	10.9 mg/kg dwt Cobalt	
PNEC (Sewage treatment plant)		
PNEC sewage treatment plant	0.37 mg/l Cobalt	

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Avoid raising powdered materials into airborne dust. Dust must be extracted directly at the point of origin.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):











8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses. Wear eye glasses with side protection according to EN 166.

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. Wear protective shoes. ESD according to EN 61340-4-3 or equivalent.

Hand protection:

Wear suitable gloves resistant to chemical penetration. Butyl-rubber protective gloves > 120 min (EN 374).

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Other skin protection

Materials for protective clothing:

Wear suitable protective clothing

8.2.2.3. Respiratory protection

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Dust production: dust mask with filter type P3

8.2.2.4. Thermal hazards

Thermal hazard protection:

Wear personal protective equipment.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Prevent entry to sewers and public waters.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid Colour Grey Appearance Powder Odour Odourless Odour threshold : Not available Melting point : Not available : Not determined Freezing point : Not determined Boiling point : Non flammable Flammability

Explosive properties : Stable under normal conditions of use

: Not available

: Not available

Oxidising properties : Not oxidizing **Explosive limits** : Not applicable Lower explosion limit : Not applicable Upper explosion limit Not applicable Flash point Not determined Auto-ignition temperature Not determined Decomposition temperature Not applicable Not applicable pH solution Not available Not applicable Viscosity, kinematic Not applicable Viscosity, dynamic Solubility Not determined Partition coefficient n-octanol/water (Log Kow) : Not available Partition coefficient n-octanol/water (Log Pow) : Not applicable Vapour pressure : Not determined Vapour pressure at 50 °C Not available Density 3.6 - 4.3 g/cm³ Relative density : Not determined Relative vapour density at 20 °C : Not determined Particle size : Not available Particle size distribution : 17 — 56 µm Particle shape : Spherical Particle aspect ratio : Not available Particle aggregation state : Not available Particle agglomeration state : Not available

Particle specific surface area

Particle dustiness

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9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : Not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Acute toxicity (inhalation)	Not classified		
EOS ToolSteel 1.2709			
ATE CLP (oral)	500 mg/kg bodyweight		
Iron (7439-89-6)			
LD50 oral rat	98.6 g/kg (Boyd EM, Shanas MN, 1963, Canad Med Ass J July 27, 1963, vol. 89, 171- 175)		
Nickel (7440-02-0)			
LD50 oral rat	> 9000 mg/kg		
LC50 Inhalation - Rat	> 10.2 mg/l (Exposure time: 1 h)		
Cobalt (7440-48-4)			
LD50 oral rat	6171 mg/kg		
LC50 Inhalation - Rat	> 10 mg/l (Exposure time: 1 h)		
Molybdenum (7439-98-7)			
LD50 oral rat	> 2000 mg/kg Source: ECHA		
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)		

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Molybdenum (7439-98-7)	
LD50 dermal rabbit	> 2000 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 5.84 mg/l/4h
LC50 Inhalation - Rat (Dust/Mist)	> 3.92 mg/l Source: ECHA
Skin corrosion/irritation :	Not classified
Additional information :	pH: Not applicable Based on available data, the classification criteria are not met
Serious eye damage/irritation :	Not classified
Additional information :	pH: Not applicable Based on available data, the classification criteria are not met
Respiratory or skin sensitisation :	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity :	Suspected of causing genetic defects.
Carcinogenicity :	May cause cancer.
Nickel (7440-02-0)	
IARC group	2B - Possibly carcinogenic to humans
Cobalt (7440-48-4)	
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity :	May damage fertility.
Cobalt (7440-48-4)	
NOAEL (animal/female, F0/P)	100 mg/kg bodyweight
STOT-single exposure :	Not classified
Additional information :	Based on available data, the classification criteria are not met
STOT-repeated exposure : Nickel (7440-02-0)	Causes damage to organs through prolonged or repeated exposure.
	0.004
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	0.004 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Molybdenum (7439-98-7)	
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	> 0.1 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
Aspiration hazard : Additional information :	Not classified Based on available data, the classification criteria are not met
EOS ToolSteel 1.2709	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential Adverse human health effects and symptoms

: Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Toxic to aquatic life with long lasting effects.

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Hazardous to the aquatic environment, short-term

(acute)

: Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term : Toxic to aquatic life with long lasting effects.

(chronic)

Nickel (7440-02-0)	
LC50 - Fish [1]	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
LC50 - Fish [2]	1.3 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
LC50 - Other aquatic organisms [1]	7.35 – 12.12 mg/l (Exposure time: 96 h - Species: Calanoid copepod (Eurytemora affinis))
EC50 - Crustacea [1]	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Cobalt (7440-48-4)	
LC50 - Fish [1]	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
NOEC (chronic)	0.003 mg/l (Exposure time: 28-day, reproduction and survival, Daphnia magna)
NOEC chronic crustacea	≤ 0.05 mg/l (Exposure time: 21-day, reproduction and survival, Daphnia magna)
Molybdenum (7439-98-7)	
LC50 - Fish [1]	609.1 mg/l Source: EHCA
EC50 72h - Algae [1]	289.2 mg/l Source: ECHA

12.2. Persistence and degradability

EOS ToolSteel 1.2709	
Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances. May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

EOS ToolSteel 1.2709		
Partition coefficient n-octanol/water (Log Pow)	Not applicable	
Bioaccumulative potential	Not established	
Cobalt (7440-48-4)		
BCF - Fish [1]	(no bioaccumulation)	
Molybdenum (7439-98-7)		
Partition coefficient n-octanol/water (Log Pow)	0.23 Source: SRC Access on Jan 2006	

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local,

regional, national and/or international regulation.

Ecology - waste materials

: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID n	umber			
UN 3077	UN 3077	UN 3077	UN 3077	UN 3077
14.2. UN proper shippin	g name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	Environmentally hazardous substance, solid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Transport document descr	iption			
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III, MARINE POLLUTANT	UN 3077 Environmentally hazardous substance, solid, n.o.s., 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III
14.3. Transport hazard	class(es)			
9	9	9	9	9
14.4. Packing group				
III	III	III	III	III
14.5. Environmental haz	zards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information	on available			

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M7

Special provisions (ADR) : 274, 335, 375, 601

Limited quantities (ADR) : 5kg Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, LP02, R001

Special packing provisions (ADR) : PP12, B3
Mixed packing provisions (ADR) : MP10

Portable tank and bulk container instructions (ADR) : T1, BK1, BK2, BK3

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Portable tank and bulk container special provisions :

(ADR)

Tank code (ADR) : SGAV, LGBV

Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V13
Special provisions for carriage - Bulk (ADR) : VC1, VC2
Special provisions for carriage - Loading, unloading : CV13

and handling (ADR)

Hazard identification number (Kemler No.) : 90

Orange plates :

90 3077

Tunnel restriction code (ADR) :

Transport by sea

Special provisions (IMDG) : 274, 335, 966, 967, 969

Limited quantities (IMDG) : 5 kg

Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : LP02, P002

Special packing provisions (IMDG) : PP12

IBC packing instructions (IMDG) : IBC08

IBC special provisions (IMDG) : B3

Tank instructions (IMDG) : BK1, BK2, BK3, T1

Tank special provisions (IMDG) : TP33
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-F
Stowage category (IMDG) : A
Stowage and handling (IMDG) : SW23

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y956
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 956
PCA max net quantity (IATA) : 400kg
CAO packing instructions (IATA) : 956
CAO max net quantity (IATA) : 400kg

Special provisions (IATA) : A97, A158, A179, A197

ERG code (IATA) : 9L

Inland waterway transport

Classification code (ADN) : M7

Special provisions (ADN) : 274, 335, 375, 601

Limited quantities (ADN) : 5 kg
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T* B**
Equipment required (ADN) : PP, A
Number of blue cones/lights (ADN) : 0

Additional requirements/Remarks (ADN) : * Only in the molten state. ** For carriage in bulk see also 7.1.4.1. ** * Only in the case of

transport in bulk.

Rail transport

Classification code (RID) : M7

Special provisions (RID) : 274, 335, 375, 601

Limited quantities (RID) : 5kg
Excepted quantities (RID) : E1

Packing instructions (RID) : P002, IBC08, LP02, R001

Special packing provisions (RID) : PP12, B3
Mixed packing provisions (RID) : MP10

Portable tank and bulk container instructions (RID) : T1, BK1, BK2, BK3

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Portable tank and bulk container special provisions : TP

(RID)

Tank codes for RID tanks (RID) : SGAV, LGBV

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W13

Special provisions for carriage – Bulk (RID) : VC1, VC2

Special provisions for carriage - Loading, unloading : CW13, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE11 Hazard identification number (RID) : 90

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Nickel

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

According to Regulation (EU) 2015/830, 2020/878 (REACH Annex II).

Sources of Key data : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE

COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and

amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 1B	Carcinogenicity, Category 1B
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341	Suspected of causing genetic defects

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Full text of H- and EUH-statements:		
H350	May cause cancer	
H351	Suspected of causing cancer	
H360F	May damage fertility	
H372	Causes damage to organs through prolonged or repeated exposure	
H400	Very toxic to aquatic life	
H411	Toxic to aquatic life with long lasting effects	
H410	Very toxic to aquatic life with long lasting effects	
Muta. 2	Germ cell mutagenicity, Category 2	
Repr. 1B	Reproductive toxicity, Category 1B	
Resp. Sens. 1	Respiratory sensitisation, Category 1	
Skin Sens. 1	Skin sensitisation, Category 1	
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:			
Acute Tox. 4 (Oral)	H302	Expert judgment	
Resp. Sens. 1	H334	Calculation method	
Skin Sens. 1	H317	Calculation method	
Muta. 2	H341	Calculation method	
Carc. 1B	H350	Calculation method	
Repr. 1B	H360F	Expert judgment	
STOT RE 1	H372	Calculation method	
Aquatic Acute 1	H400	Expert judgment	
Aquatic Chronic 2	H411	Expert judgment	

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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