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

### 1.1. Product identifier

Product form : Mixture  
Trade name/designation : ALUMINIUM PASTE WS  
Product code : R280, 02, 04, Z/04, 06, 08, 880, 880, 8880, 8980, 024, 030, 032,76000, 80000, 80000/A, 90000/A, 30/Z, 40/Z, 80/Z, A8, A88, A888, Silver Imitation\* / WS / 65-35, 70-30, 75-25, 80-20, 85-15, 90-10  
\* = also valid for leafing (L) and non-leafing (NL)

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

#### 1.2.1. Relevant identified uses

Main use category : Industrial uses, Professional uses

#### 1.2.2. Uses advised against

No data available

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

AVL METAL POWDERS n.v.  
Elleboogstraat 7  
B-8500 Kortrijk - Belgium, Europe  
T +32 (0)56 22 00 21 - F +32 (0)56 22 64 14  
BE 0405 375 371 - RPR Kortrijk  
[sales@avlmetalpowders.com](mailto:sales@avlmetalpowders.com) - [www.avlmetalpowders.com](http://www.avlmetalpowders.com)

### 1.4. Emergency telephone number

Emergency number : +32 (0)475 38 36 83  
This telephone number is available 24 hours per day, 7 days per week.

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours, healthcare professionals only)

## SECTION 2: Hazards identification


### 2.1. Classification of the substance or mixture

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

Flam. Sol. 1 H228

STOT SE 3 H336

Full text of hazard classes and H-statements : see section 16

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## 2.2. Label elements

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

Hazard pictograms :



Signal word : Danger

Hazardous ingredients : hydrocarbons, c9-c11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Hazard statements : H228 - Flammable solid.  
H336 - May cause drowsiness or dizziness.

Precautionary statements : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P240 - Ground/bond container and receiving equipment.  
P261 - Avoid breathing vapours.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves.

Extra phrases : EUH066 - Repeated exposure may cause skin dryness or cracking.

## 2.3. Other hazards

Other hazards : PBT/vPvB data. Not applicable. In dry state: Risk of dust explosion.

## SECTION 3: Composition/information on ingredients

### 3.1. Substance


Not applicable

### 3.2. Mixture

Comments : (1) The substance or mixture does not emit flammable gases in contact with water  
UN Test N.5: Test method for substances which in contact with water emit flammable gases  
(Note T : This substance may be marketed in a form which does not have the physical hazards as indicated by the classification in the entry in Part 3. If the results of the relevant method or methods in accordance with Part 2 of Annex I of this Regulation show that the specific form of substance marketed does not exhibit this physical property or these physical hazards, the substance shall be classified in accordance with the result or results of this test or these tests. Relevant information, including reference to the relevant test method(s) shall be included in the safety data sheet.)

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aluminium (1)	(CAS No) 7429-90-5 (EC no) 231-072-3 (EC Index) 013-002-00-1 (REACH-no) 01-2119529243-45-0146, 01-2119529243-45-XXXX	65 - 90	Flam. Sol. 1, H228
hydrocarbons, c9-c11, n-alkanes, isoalkanes, cyclics, <2% aromatics	(EC no) 919-857-5 (REACH-no) 01-2119463258-33-XXXX	10 - 35	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304

Full text of H-statements: see section 16

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Additional advice	: First aider: Pay attention to self-protection. See also section 8. Treat symptomatically. Show this safety data sheet to the doctor in attendance. In case of doubt or persistent symptoms, consult always a physician. Never give anything by mouth to an unconscious person or a person with cramps.
Inhalation	: Provide fresh air. Keep at rest. In case of doubt or persistent symptoms, consult always a physician.
Skin contact	: Take off contaminated clothing. Wash with plenty of water/. In case of doubt or persistent symptoms, consult always a physician.
Eyes contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation develops or persists.
In case of ingestion	: Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Get medical advice/attention.

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

Inhalation	: Vapours may cause drowsiness and dizziness. Repeated or prolonged exposure: (dust) : May cause respiratory irritation. The following symptoms may occur: Headache, Nausea, Unconsciousness.
Skin contact	: Prolonged skin contact may defat the skin and produce dermatitis. Repeated exposure may cause skin dryness or cracking. The following symptoms may occur: erythema (redness).
Eyes contact	: Dust contact with the eyes can lead to mechanical irritation.
Ingestion	: May be irritating.

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

No data available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media


Suitable extinguishing media	: Special powder against metal fire . Dry sand . ABC-powder . Co-ordinate fire-fighting measures to the fire surroundings.
Unsuitable extinguishing media	: water. Foam.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards	: Flammable solid. In dry state: Dust may form explosive mixture in air. Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.
Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO <sub>2</sub> ).

### 5.3. Advice for firefighters

Firefighting instructions	: Evacuate area. Cool closed containers exposed to fire with water spray. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
Other information	: Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

For non-emergency personnel : Evacuate personnel to a safe area. Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe vapours/dust. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Use only non-sparking tools.

#### 6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

Methods for cleaning up : Stop leak if safe to do so. Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or powdered limestone. Collect in closed and suitable containers for disposal. Dispose of contaminated materials in accordance with current regulations. Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

### 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Disposal: see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Use only in well ventilated areas. Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8 . Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe vapours/dust. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Take any precaution to avoid mixing with incompatible materials. See also section 10. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Do not allow to enter into surface water or drains.

Hygiene measures : Keep good industrial hygiene. When using do not eat, drink or smoke. Wash hands before breaks and immediately after using the product. Take off contaminated clothing.

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

Technical measures : Flammable solids. Keep container tightly closed in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight. Protect from moisture. Do not store near or with any of the incompatible materials listed in section 10. Maximum storage period (time) : 12 months.

Packaging materials : Keep/Store only in original container.

### 7.3. Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Aluminium (7429-90-5)		
Austria	MAK (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable fraction)



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### Aluminium (7429-90-5)

Austria	MAK Short time value (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> (inhalable fraction)
Belgium	Limit value (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	10,0 mg/m <sup>3</sup> (metal dust) 1,5 mg/m <sup>3</sup> (respirable fraction)
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 4 mg/m <sup>3</sup> (respirable dust)
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	10,0 mg/m <sup>3</sup> (dust)
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (dust, fume and powder, total) 2 mg/m <sup>3</sup> (dust and powder, respirable)
Estonia	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 4 mg/m <sup>3</sup> (respirable dust)
France	VME (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (metal) 5 mg/m <sup>3</sup> (dust)
Greece	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable fraction) 5 mg/m <sup>3</sup> (respirable fraction)
Hungary	AK-érték	6 mg/m <sup>3</sup> (respirable dust)
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (respirable dust)
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (calculated-respirable dust)
Latvia	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Lithuania	IPRV (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (inhalable fraction) 2 mg/m <sup>3</sup> (respirable fraction) 1 mg/m <sup>3</sup>
Poland	NDS (mg/m <sup>3</sup> )	2,5 mg/m <sup>3</sup> (inhalable fraction) 1,2 mg/m <sup>3</sup> (respirable fraction)
Portugal	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (metal dust)
Romania	OEL TWA (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (dust) 1 mg/m <sup>3</sup> (fume)
Romania	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (dust) 3 mg/m <sup>3</sup> (fume)
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	1,5 mg/m <sup>3</sup> (metal) 6 mg/m <sup>3</sup> (total aerosol)
Spain	VLA-ED (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (dust)
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (total dust) 2 mg/m <sup>3</sup> (respirable dust)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable dust) 4 mg/m <sup>3</sup> (respirable dust)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	30 mg/m <sup>3</sup> (calculated-inhalable dust) 12 mg/m <sup>3</sup> (calculated-respirable dust)
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (pyrotechnical-powder)
Norway	Grenseverdier (Korttidsverdi) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (pyrotechnical-powder)
Switzerland	VME (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (respirable dust)
Australia	TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (dust) 5 mg/m <sup>3</sup> (welding fume)
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
USA - ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (respirable fraction)
USA - NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)


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Additional information	: Recommended monitoring procedures. Personal air monitoring. Room air monitoring
<b>8.2. Exposure controls</b>	
Engineering control measures	: Provide adequate ventilation. Use only in area provided with appropriate exhaust ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure equipment is adequately earthed. Take precautionary measures against static discharges. Organisational measures to prevent /limit releases, dispersion and exposure. See also section 7.
Personal protection equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hand protection	: The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves. Wear chemically resistant gloves (tested to EN374) . NBR (Nitrile rubber)
Eye protection	: Safety glasses (EN 166)
Body protection	: Wear suitable protective clothing. Chemical resistant safety shoes. Wear suitable coveralls to prevent exposure to the skin
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (DIN EN 140). Full face mask (EN 136). Filter type: A/P (EN 141)
Thermal hazard protection	: Not required for normal conditions of use.
Environmental exposure controls	: Avoid release to the environment. Comply with applicable Community environmental protection legislation.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Paste.
Colour	: Silver.
Odour	: characteristic.
Odour threshold	: No data available
pH	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Melting point/freezing point	: 620 °C aluminium
Freezing point	: No data available
Initial boiling point and boiling range	: 2500 °C 2000 °C (aluminium) 130 – 210 °C (Solvent)
Flash point	: > 36 °C Solvent
Auto-ignition temperature	: > 200 °C Solvent
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable
Vapour pressure	: (20°C) 0,3 kPa Solvent
Vapour density	: (Air = 1) > 1 Solvent
Relative density	: (Water=1) (15 °C) 0,741 - 0,851 Solvent
Density	: (AL) 2 kg/l (bulk) (15 °C) 740 – 850 kg/m <sup>3</sup> (Solvent)
Solubility	: No data available. Water: (Al) Insoluble
Partition coefficient n-octanol/water	: No data available

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Kinematic viscosity : No data available  
Dynamic viscosity : No data available  
Explosive properties : Not applicable. The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.  
Oxidising properties : Not applicable. The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.  
Explosive limits : LEL - UEL 0,6 - 7 vol % Solvent

### **9.2. Other information**

Additional information : Solvent. Volatile. : 100%

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

Flammable solid. Reference to other sections: 10.5.

### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

### **10.3. Possibility of hazardous reactions**

In dry state: Risk of dust explosion. Reference to other sections: 10.4 & 10.5.

### **10.4. Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Avoid dust formation. See also section 7. Handling and storage.

### **10.5. Incompatible materials**

acids and bases. Halogens. Halogenated compounds. Oxidising substances. See also section 7. Handling and storage.

### **10.6. Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. Reference to other sections: 5.2.

## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

<b>hydrocarbons, c9-c11, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</b>	
LD50/oral/rat	> 5000 mg/kg OECD 401
LD50/dermal/rabbit	> 5000 mg/kg OECD 402
LC50/inhalation/4h/rat	4951 mg/m <sup>3</sup> OECD 403

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: Not applicable

Serious eye damage/eye irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: Not applicable

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)


STOT-single exposure : May cause drowsiness or dizziness.  
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

<b>ALUMINIUM PASTE WS</b>	
Kinematic viscosity	(20 °C) 0,8 - 2,1 mm <sup>2</sup> /s Solvent



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Other adverse effects : None.

Other information : Symptoms related to the physical, chemical and toxicological characteristics.  
Reference to other sections: 4.2.

## SECTION 12: Ecological information

### 12.1. Toxicity

Environmental properties : Ecological injuries are not known or expected under normal use.

hydrocarbons, c9-c11, n-alkanes, isoalkanes, cyclics, <2% aromatics	
EL0, Daphnia magna (Big water flea), acute	1000 mg/l (48 hours)
NOELR, Pseudokirchneriella subcapitata, acute	100 mg/l (72 hours)
EL50, Pseudokirchneriella subcapitata, acute	>1000 mg/l (72 hours)
LL50, acute, Oncorhynchus mykiss (Rainbow trout)	>1000 mg/l (96 hours)

### 12.2. Persistence and degradability

ALUMINIUM PASTE WS	
Persistence and degradability	Solvent.

### 12.3. Bioaccumulative potential

ALUMINIUM PASTE WS	
Partition coefficient n-octanol/water	No data available

### 12.4. Mobility in soil

ALUMINIUM PASTE WS	
Ecology - soil	No data available.

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Handle with care. Safe handling: see section 7. Handling and storage. Collect and dispose of waste product at an authorised disposal facility. Refer to manufacturer/supplier for information on recovery/recycling. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of contaminated materials in accordance with current regulations.

Additional information : If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to local recyclers for disposal. Do not burn, or use a cutting torch on, the empty drum. Do not puncture or incinerate.

Further ecological information : Do not allow to enter into surface water or drains.

List of proposed waste codes/waste designations in accordance with EWC (2001/573/EC, 75/442/EEC, 91/689/EEC) : Classified as hazardous waste according to European Union regulations  
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities






## SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
1325	1325	1325	1325	1325




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ADR	IMDG	IATA	ADN	RID
<b>14.2. UN proper shipping name</b>				
FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics )	FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics )	Flammable solid, organic, n.o.s. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics )	FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics )	FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics )
<b>Transport document description</b>				
UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics ), 4.1, II, (E)	UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics ), 4.1, II	UN 1325 Flammable solid, organic, n.o.s. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics ), 4.1, II	UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics ), 4.1, II	UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium/Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics ), 4.1, II
<b>14.3. Transport hazard class(es)</b>				
4.1	4.1	4.1	4.1	4.1
				
<b>14.4. Packing group</b>				
II	II	II	II	II
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

#### **14.6. Special precautions for user**

##### **- Overland transport**

Classification code (ADR) : F1  
 Special Provisions : 274  
 Limited quantities (ADR) : 1kg  
 Excepted quantities (ADR) : E2  
 Packing instructions (ADR) : P002, IBC08  
 Special packing provisions (ADR) : B4  
 Mixed packing provisions (ADR) : MP10  
 Portable tank and bulk container instructions (ADR) : T3  
 Portable tank and bulk container special provisions (ADR) : TP33  
 Tank code (ADR) : SGAN  
 Vehicle for tank carriage : AT  
 Transport category (ADR) : 2  
 Special provisions for carriage - Packages (ADR) : V11  
 Hazard identification number (Kemler No.) : 40

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Orange plates : 40  
1325

tunnel restriction code : E  
EAC code : 1Z

**- Transport by sea**

Special provisions (IMDG) : 274, 915  
Limited quantities (IMDG) : 1 kg  
Excepted quantities (IMDG) : E2  
Packing instructions (IMDG) : P002  
IBC packing instructions (IMDG) : IBC08  
IBC special provisions (IMDG) : B2, B4  
Tank instructions (IMDG) : T3  
Tank special provisions (IMDG) : TP33  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-G  
Stowage category (IMDG) : B

**- Air transport**


PCA Excepted quantities (IATA) : E2  
PCA Limited quantities (IATA) : Y441  
PCA limited quantity max net quantity (IATA) : 5kg  
PCA packing instructions (IATA) : 445  
PCA max net quantity (IATA) : 15kg  
CAO packing instructions (IATA) : 448  
CAO max net quantity (IATA) : 50kg  
Special provisions (IATA) : A3  
ERG code (IATA) : 3L

**- Inland waterway transport**

Classification code (ADN) : F1  
Special provisions (ADN) : 274  
Limited quantities (ADN) : 1 kg  
Excepted quantities (ADN) : E2  
Equipment required (ADN) : PP  
Number of blue cones/lights (ADN) : 1

**- Rail transport**

Classification code (RID) : F1  
Special provisions (RID) : 274  
Limited quantities (RID) : 1kg  
Excepted quantities (RID) : E2  
Packing instructions (RID) : P002, IBC08  
Special packing provisions (RID) : B4  
Mixed packing provisions (RID) : MP10  
Portable tank and bulk container instructions (RID) : T3  
Portable tank and bulk container special provisions (RID) : TP33

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Tank codes for RID tanks (RID) : SGAN  
 Transport category (RID) : 2  
 Special provisions for carriage – Packages (RID) : W1  
 Colis express (express parcels) (RID) : CE10  
 Hazard identification number (RID) : 40

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

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:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	hydrocarbons, c9-c11, n-alkanes, isoalkanes, cyclics, <2% aromatics
3.a. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	hydrocarbons, c9-c11, n-alkanes, isoalkanes, cyclics, <2% aromatics
3.b. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	hydrocarbons, c9-c11, n-alkanes, isoalkanes, cyclics, <2% aromatics
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	ALUMINIUM PASTE WS - Aluminium - hydrocarbons, c9-c11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

**15.1.2. National regulations**

**France**

No ICPE	Installations classées Désignation de la rubrique	Code Régime	Rayon
1450.text	Solides inflammables (stockage ou emploi de).		
1450.2	La quantité susceptible d'être présente dans l'installation étant : 2. Supérieure ou égale à 50 kg mais inférieure à 1 t	D	
1450.2b	2. emploi ou stockage : la quantité totale susceptible d'être présente dans l'installation étant : b) supérieure à 50 kg, mais inférieure à 1 t	D	


**Germany**

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

German storage class (LGK) : LGK 4.1B - Flammable solids

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

**Netherlands**

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Waterbezwaarlijkheid : 11 - Weinig schadelijk voor in het water levende organismen (B)

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

## 15.2. Chemical safety assessment

<b>For the following substances of this mixture a chemical safety assessment has been carried out</b>
Aluminium hydrocarbons, c9-c11, n-alkanes, isoalkanes, cyclics, <2% aromatics

## SECTION 16: Other information

Indication of changes:

Safety datasheet sections which have been updated 1,2,3,5,14,15,16.

Abbreviations and acronyms:


ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods Code
LEL = Lower Explosive Limit/Lower Explosion Limit
UEL = Upper Explosion Limit/Upper Explosive Limit
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
TWA = time weighted average
STEL = Short term exposure limit
PBT = persistent, bioaccumulating and toxic (PBT).
vPvB = very persistent and very bioaccumulating
EWC = European waste catalogue
NA = Not applicable
LC50 = Median lethal concentration
LD50 = Median lethal dose
WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Sources of key data used to compile the datasheet : European Metal Particulate Association (EMPA) Supplier SDS.

Training advice : Training staff on good practice.

Full text of H- and EUH-statements:

Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Flam. Sol. 1	Flammable solids, Hazard Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H226	Flammable liquid and vapour.
H228	Flammable solid.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.

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EUH066	Repeated exposure may cause skin dryness or cracking.
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The contents and format of this SDS are in accordance with EEC Commission Directive 2015/830/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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