



ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 10/30/2015 Revision date: 7/15/2022 Supersedes version of: 8/22/2017 Version: 6.0

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

1.1. Product identifier

Product form : Mixture
Trade name : ALU ZM
UFI : VF00-N0YY-T00R-4WVV
Product code : ZALU
Type of product : Paste
Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Industrial use, Professional use, Consumer use
Industrial/Professional use spec : Coating
Paint
Function or use category : 55/999 Others

1.2.2. Uses advised against

Restrictions on use : All other areas of application to be agreed with the Application Engineering/ Technical Marketing Department of the manufacturer

1.3. Details of the supplier of the safety data sheet

ZINGAMETALL B.V.
Rozenstraat, 4
B- 9810 Eke
Belgium
T +32 9 385 68 81
info@zinga.be - www.zinga.eu

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Australia	NSW Poisons Information Centre The Children's Hospital at Westmead	Locked Bag 4001 NSW 2145 Westmead	13 11 26	
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Militaire Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussels	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3	H226
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335
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

Flammable liquid and vapour. May cause drowsiness or dizziness. May cause respiratory irritation. Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Contains

: Hydrocarbons, C9, aromatics

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read carefully and follow all instructions.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P260 - Do not breathe fume, gas, mist, spray, vapours.
P262 - Do not get in eyes, on skin, or on clothing.
P273 - Avoid release to the environment.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P331 - Do NOT induce vomiting.
P403+P235 - Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements : EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

Other hazards which do not result in classification : If spilled, may cause the floor to be slippery.

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Hydrocarbons, C9, aromatics (128601-23-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
aluminium powder (stabilised) (7429-90-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

Comments : The classification as a carcinogen or mutagen does not apply because the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C9, aromatics (Note P)	CAS-No.: 128601-23-0 EC-No.: 918-668-5 REACH-no: 01-2119455851-35	60 – 80	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066
aluminium powder (stabilised)	CAS-No.: 7429-90-5 EC-No.: 231-072-3 EC Index-No.: 013-002-00-1 REACH-no: 01-2119529243-45	20 - 40	Flam. Sol. 1, H228
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (Note P)	CAS-No.: 64742-48-9 EC-No.: 918-481-9 EC Index-No.: 649-327-00-6 REACH-no: 01-2119457273-39	2 - 6	Asp. Tox. 1, H304

Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)-P260-P262-P301 + P310-P331 shall apply.

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 : Call a poison center or a doctor if you feel unwell. If medical advice is needed, have product container or label at hand. Remove contaminated clothing and shoes. First aider: Pay attention to self-protection!. Ensure adequate air ventilation. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Loosen tight clothing such as a collar, tie, belt or waistband. Call a POISON CENTER/doctor if you feel unwell. If experiencing respiratory symptoms: Call a poison center or a doctor. Give oxygen or artificial respiration if necessary. Do not give mouth-to-mouth resuscitation if victim ingested or inhaled the substance. Induce artificial respiration with mask fitted with one-way valve or other suitable device but not mouth-to-mouth.

First-aid measures after skin contact : Rinse skin with water/shower. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophtalmologist if irritation persists.

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

First-aid measures after ingestion	: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth out with water. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If unconscious, place in the recovery position and seek medical advice. Never give anything by mouth to an unconscious person.
------------------------------------	--

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

Symptoms/effects	: May cause drowsiness or dizziness. May cause respiratory irritation.
Symptoms/effects after inhalation	: May cause drowsiness or dizziness. May cause headache, nausea and irritation of respiratory tract.
Symptoms/effects after skin contact	: irritation (itching, redness, blistering). Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: Ingestion may cause nausea and vomiting. May be harmful if swallowed.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Dry powder. Dry chemical, CO ₂ , dry sand, or alcohol-resistant foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapour. Without adequate ventilation formation of explosive mixtures may be possible. Vapours may cause fire/explosion if source of ignition is present. The vapours are denser than air and may travel along the ground. Distance ignition possible.
Explosion hazard	: May form flammable/explosive vapour-air mixture. Take precautionary measures against static discharge.

5.3. Advice for firefighters

Precautionary measures fire	: Keep container tightly closed and away from heat, sparks and flame. This product is not to be used under conditions of poor ventilation.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Evacuate area. Prevent fire fighting water from entering the environment. Exercise caution when fighting any chemical fire.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
Other information	: Avoid release to the environment. Danger depends on the burning materials and the fire conditions.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid all eye and skin contact and do not breathe vapour and mist. Contact with walking surface may result in formation of slippery film/falling hazard. Eliminate every possible source of ignition. No open flames. No smoking. Use special care to avoid static electric charges.
------------------	--

6.1.1. For non-emergency personnel

Protective equipment	: For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing fume, gas, mist, spray, vapours. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
----------------------	---

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Emergency procedures : Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Wear protective gloves, protective clothing. Use grounded electrical/mechanical equipment. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Toxic to aquatic life with long lasting effects. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. This material and its container must be disposed of in a safe way, and as per local legislation. Notify authorities if product enters sewers or public waters.

Other information : Ventilate area. Contact with walking surface may result in formation of slippery film/falling hazard. Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information, refer to section 10 : "Stability and Reactivity". For disposal of residues refer to section 13 : Disposal considerations" .

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : In use, may form flammable vapour-air mixture. The vapours are denser than air and may travel along the ground. Distance ignition possible. Use only in well-ventilated areas.

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use only non-sparking tools. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing fume, gas, mist, spray, vapours. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ensure adequate ventilation, especially in confined areas. Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed.

Incompatible products : Oxidizing agent. reducing agents. Strong acids. Strong bases. water.

Incompatible materials : Direct sunlight. Heat sources. Sources of ignition.

Information on mixed storage : Store away from foodstuffs.

Storage area : Store away from heat. Store in a well-ventilated place.

Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

For the relevant identified uses in accordance with section 1, the notes mentioned in this section 7 must be observed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

aluminium powder (stabilised) (7429-90-5)

Belgium - Occupational Exposure Limits

OEL TWA	10 mg/m ³ (metal and insoluble compounds, respirable fraction) 3 mg/m ³ (metal and insoluble compounds, inhalable fraction) 1 mg/m ³
---------	---

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Hydrocarbons, C9, aromatics (128601-23-0)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	150 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	11 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	32 mg/m ³
Long-term - systemic effects, dermal	11 mg/kg bodyweight/day

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	300 mg/kg bw/day
--------------------------------------	------------------

DNEL/DMEL (General population)

Long-term - systemic effects, oral	300 mg/kg bw/day
Long-term - systemic effects, inhalation	900 mg/m ³
Long-term - systemic effects, dermal	300 mg/kg bw/day

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses (EN 166)

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hand protection:

Protective gloves against chemicals (EN 374)

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Nitrile rubber (NBR), Viton® II, Fluoroelastomer (FKM)	6 (> 480 minutes)	≥ 0,38		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
Reusable half mask	ABEK, Type P2	Gas protection, Vapour protection, Mist formation	EN 136, EN 140

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Silver grey.
Appearance	: Paste.
Odour	: aromatic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: 140 – 200 °C (Hydrocarbons, C9, aromatics)
Flammability	: Flammable liquid and vapour
Explosive properties	: No data available. May form flammable/explosive vapour-air mixture.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 47 – 51 °C Atm. press.: 1 atm (Hydrocarbons, C9, aromatics)
Auto-ignition temperature	: > 400 °C (Hydrocarbons, C9, aromatics)
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: > 21 mm²/s
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: < 0.1 kPa (Hydrocarbons, C9, aromatics)
Vapour pressure at 50 °C	: Not available
Density	: ≈ 1.01 g/cm³
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 622 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour. Heating may cause a fire or explosion.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Vapours may form flammable mixture with air. Thermal decomposition generates : fume. Carbon dioxide. Carbon monoxide. (Related to organic solvent).

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Hydrocarbons, C9, aromatics (128601-23-0)	
LD50 oral rat	3492 mg/kg (OECD 401 method)
LD50 dermal rabbit	3160 mg/kg (OECD 402 method)
LC50 Inhalation - Rat (Vapours)	> 6193 mg/l/4h (OECD 403 method)

aluminium powder (stabilised) (7429-90-5)	
LC50 Inhalation - Rat (Dust/Mist)	> 5 mg/l/4h

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : May cause drowsiness or dizziness. May cause respiratory irritation.

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hydrocarbons, C9, aromatics (128601-23-0)

STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

ALU ZM

Viscosity, kinematic	> 21 mm ² /s
----------------------	-------------------------

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Ecology - water	: Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.
Not rapidly degradable	

Hydrocarbons, C9, aromatics (128601-23-0)

LC50 - Fish [1]	9.2 mg/l (Oncorhynchus mykiss (Rainbow trout))
EC50 - Crustacea [1]	3.2 mg/l (Daphnia magna (Water flea))
EC50 72h - Algae [1]	2.9 mg/l
NOEC chronic fish	1.23 mg/l (Oncorhynchus mykiss (Rainbow trout), 28 days)
NOEC chronic crustacea	2.14 mg/l (21 days, Daphnia magna (Water flea))
NOEC chronic algae	1 mg/l (Pseudokirchneriella subcapitata, 72 Hours)

12.2. Persistence and degradability

Hydrocarbons, C9, aromatics (128601-23-0)

Persistence and degradability	Readily biodegradable.
Biodegradation	78 % (28 days (OECD 301F method))

12.3. Bioaccumulative potential

Hydrocarbons, C9, aromatics (128601-23-0)

Partition coefficient n-octanol/water (Log Pow)	< 4.5
Bioaccumulative potential	No bioaccumulation data available.

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

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Solvent reclamation/regeneration. Collect all waste in suitable and labelled containers and dispose according to local legislation.
Sewage disposal recommendations	: Do not discharge into drains or the environment.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Beware of residues or vapours which remain in the drums. Packaging that cannot be cleaned should be disposed of as product waste.
Additional information	: Flammable vapours may accumulate in the container. Clean up even minor leaks or spills if possible without unnecessary risk.
Ecology - waste materials	: Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1263	UN 1263	UN 1263	UN 1263	UN 1263
14.2. UN proper shipping name				
PAINT	PAINT	Paint	PAINT	PAINT
Transport document description				
UN 1263 PAINT, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1263 PAINT, 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1263 Paint, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
3	3	3	3	3
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
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 available				

14.6. Special precautions for user

Overland transport

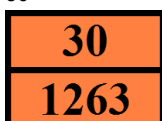
Classification code (ADR)	: F1
Special provisions (ADR)	: 163, 367, 650
Limited quantities (ADR)	: 5I

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T2
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: •3Y

Transport by sea

Special provisions (IMDG)	: 163, 223, 367, 955
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-E
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Miscibility with water depends upon the composition.

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3, A72, A192
ERG code (IATA)	: 3L

Inland waterway transport

Classification code (ADN)	: F1
Special provisions (ADN)	: 163, 367, 650
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: F1
Special provisions (RID)	: 163, 367, 650
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Portable tank and bulk container instructions (RID) : T2
Portable tank and bulk container special provisions (RID) : TP1, TP29
Tank codes for RID tanks (RID) : LGBF
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE4
Hazard identification number (RID) : 30

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

EU restriction list (REACH Annex XVII)

Reference code	Applicable on
3(a)	ALU ZM ; Hydrocarbons, C9, aromatics
3(b)	ALU ZM ; Hydrocarbons, C9, aromatics ; Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
3(c)	ALU ZM ; Hydrocarbons, C9, aromatics
40.	Hydrocarbons, C9, aromatics ; aluminium powder (stabilised)

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

VOC content : 622 g/l

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic 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

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
Flam. Liq. 3	Flammable liquids, Category 3
Flam. Sol. 1	Flammable solids, Category 1
H226	Flammable liquid and vapour.
H228	Flammable solid.
H304	May be fatal if swallowed and enters airways.

ALU ZM

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:

H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

The classification complies with : ATP 12

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.