in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Version: 2.0 Powder Number: LPP.A-20-10

SECTION 1: Identification Of The Substance Or Mixture And The Company/Undertaking

1.1. Product identification	
Product type:	Mixture
Product code:	LPP.A-20-10
Product group:	Powder

1.2. Relevant identified use of the substance or mixture and uses advised against		
1.2.1. Relevant identified uses		
Specific industrial/professional use: Industrial For professional use only		
1.2.2. Uses advised against		

No additional information available Powder

1.3. Details regarding the supplier of the safety data sheet

Titomic Limited

info@titomic.com

www.titomic.com

1.4. Emergency telephone number			
Country	Organisation / Company	Address	Emergency tel. number
THE NETHERLANDS	National Poisons Information Center (NVIC) University Medical Centre (UMC) Utrecht, The National Poisons Information Centre (NVIC) provides information for doctors, veterinary surgeons, pharmacists and other medical professionals about the potential health effects and treatment options in cases of poisoning. The NVIC can be reached 24 hours a day, both by telephone and Internet.	P.O. Box 85500 3508 GA Utrecht	+31 30 274 88 88

SECTION 2: Hazard Identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 1 H228 Water react. 2 H261

For total text of H phrases: see section 16



(iii) titomic.com

in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Version: 2.0 Powder Number: LPP.A-20-10

Classification according to Directive 67/548/EEC or 1999/45/EC

F; R15

For total text of R phrases: see section 16

Harmful physical-chemical, health and environmental effects

No additional information available

2.2. Label elements		
Labelling according to Regulation (EC) no. 1272/2008 [CLP]		
Hazard pictograms (CLP):	GHS02	
Signal word (CLP):	Hazard	
Hazard indication (CLP):	H228 – Flammable solid H411 - Poisonous to aquatic organisms, with long-term consequences	
Safety recommendations (CLP):	P210 - Keep away from open fire and sparks. Do not smoke P223 - Store in well-sealed packaging P241 - Use explosion-proof equipment P280 - Wear protective gloves, protective clothing and eye protection	

2.3. Other hazards

No additional information available

SECTION 3: Composition Of And Information About Ingredients

3.1. Substances

Not applicable

3.2. Mixture			
Name	Productidentification	%	Classification as laid down in Directive 67/548/EEC
Aluminium powder (99.6% pure)	.(CAS no.) 7429-90-5 (EC no.) 231-072-3 (EU Identification number) 013-002-00-1 (REACH no.) 01-2119529243-45	50	F; R11 F; R15
Zinc powder (96% pure)	(CAS no.) 7440-66-6 (EC no.) 231-175-3 (EU-Identification number) 0 30-001-01-9 (REACH no.) 01-2119467174-37	50	N; R50/53



in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

Name	Productidentification	%	Classification according to Regulation (EC) no.1272/2008 [CLP]
Aluminium powder (99.6% pure)	CAS no.) 7429-90-5 (EC no.) 231-072-3 (EU Identification number) 013-002-00-1 (REACH no.) 01-2119529243-45	50	Water-react. 2, H261 Flam. Sol. 1, H228
Zinc powder (96% pure)	(CAS no.) 7440-66-6 (EC no.) 231-175-3 (EU-Identification number) 030-001-01-9 (REACH no.) 01-2119467174-37	50	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

For total content of R and H phrases: see section 16

SECTION 4: First Aid Measures

	4.1. Description of first aid measures
General first aid:	Never give anything by mouth to an unconscious person. If a person feels unwell, consult a physician (show the relevant label if possible).
First aid following substance inhalation:	Allow victim to breathe freshair. Allow victim to rest. In the event of a respiratory arrest, apply artificial respiration. Seek medical assistance if breathing difficulty persists.
First aid following contact with skin:	Remove soiled clothing and wash or shower skin with plenty of water (for 15 minutes). Consult a physician if necessary.
First aid following contact with eyes:	Rinse immediately with plenty of water. Rinse with lukewarm water for 15 minutes. Lift eyelids using fingers and flush the eyes with plenty of water. Seek medical assistance if pain or redness persists.
First aid following ingestion	Rinse the mouth thoroughly with water. DO NOT induce vomiting. Consult a physician immediately.

4.2. Main acute and delayed symptoms and effects		
Symptoms/injuries:	Not considered a serious hazard if used under normal circumstances.	
Symptoms/injuries following inhalation:	Symptoms of extreme exposure to vapour include: Coughing. Irritation of the throat and airways. Shortness of breath.	
Symptoms/injuries following contact with skin:	May cause minor irritation.	
Symptoms/injuries following contact with eyes:	May cause eye irritation.	
Symptoms/injuries following ingestion:	Diarrhoea. Irritation.	
Chronic symptoms:	Inhaling dust can result in respiratory irritation. Inhalation may cause allergy or asthma symptoms or breathing difficulties.	

in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

4.3. Reporting the necessar	v immediate medical	care and eneci	al treatment
4.5. Reporting the necessar	y IIIIIIIeulate IIIeultai	care arruspeci	ai treatillellt

No additional information available

Section 5: Firefighting Measures

5.1. Extinguishing media	
Suitable extinguishing media:	Foam. Dry powder. Carbon dioxide. Sand.
Unsuitable extinguishing media:	Do not use extinguishing media containing water.

5.2. Special hazards arising from the substance or mixture			
Fire hazard: Can form a flammable and explosive vapour-air mixture.			
	·		
5.3. Advice for firefighters			
Extinguishing instructions:	Cool the exposed vessels by spraying with water or water mist. Exercise extreme caution when fighting a chemical fire. Avoid discharging fire extinguishing water into the environment		
Protection during firefighting:	Do not enter fire zone without suitable safety equipment/clothing, including protective breathing apparatus.		

SECTION 6: Measures To Be Taken In The Event Of Accidental Release Of The Substance Or Mixture

6.1. Personal prevention measures, protective equipment and emergency procedures		
General measures:	Seneral measures: Make sure there is adequate ventilation. Keep away from sources of ignition.	
6.1.1. For non-emergency personnel		
Emergency procedures:	Evacuate personnel to a safe place.	
6.1.2. For emergency personnel		
Protective equipment:	Provide cleaning personnel with suitable protection.	
Emergency procedures:	Ventilate the area.	



in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

6.2. Environmental precautions

Do not discharge into sewage or public waters If pollution of lakes, rivers or sewage occurs, informed the responsible authorities in accordance with local regulations.

6.3. Methods and materials for containment and cleaning	
Cleaning methods:	Sweep or scrape from the ground into suitable containers. Keep dust formation to a minimum. Store separately from other materials.

6.4. Reference to other sections

See section 8 for use of personal protection equipment. See section 13 for waste disposal after cleaning.

SECTION 7: Handling And Storage

7.1. Precautions for safe handling of the substance or mixture	
Additional hazards associated with handling:	Avoid contact with skin and eyes. No open fire, no sparks; do not smoke.
Precautions for safe handling of the substance or mixture:	Wash hands and other exposed parts using gentle soap and water before eating, drinking, smoking or leaving the work environment. Make sure there is adequate ventilation in the handling area in order to prevent evaporation.

7.2. Safe storage conditions, including incompatible products	
Storage conditions: Keep away from moisture. Keep containers closed when not in use. Store in a cool, dry, wellventilated area.	
Incompatible substances:	Strong alkalines. Strong acids.
Incompatible substances:	Remove all sources of ignition. Protect the product from direct sunlight.

	7.3. Specific end use(s)	
industrial.		

SECTION 8: Measures To Control Exposure/Personal Protection

8.1. Control parameters	
No additional information available	



in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

8.2. Measures to control exposure		
Suitable technical measures:	Provide the area with local drainage/outlet or general ventilation. Keep away from sources of ignition. Emergency eye baths and safety showers should be installed in the vicinity of all exposure hazard areas.	
Personal protective equipment:	Avoid unnecessary exposure. Gloves. Safety goggles.	
Hand protection:	The manufacturer can provide the exact penetration time; bear this in mind at all times. Standard EN 374 - Gloves for protection against chemicals. Select glove material according to penetration times, rates of diffusion and the degradation. As a result of failed tests, no recommendation for glove material can be given for the product/ the preparation/ the chemical mixture. The choice of suitable gloves depends not only on the material, but also on other quality characteristics, and varies from one manufacturer to another.	
Eye protection:	Safety goggles. Use protective eyewear that meets EN 166 requirements and which is designed to protect against dust particles.	
Protection for the skin and body:	Use suitable safety clothing/equipment.	
Respiratory protection:	Respiratory protection is recommended if exposure carries a risk of inhalation. No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.	
Other information	Do not eat, drink or smoke during use. Avoid contact with skin and eyes. Do not inhale the substance.	

SECTION 9: Physical and Chemical Properties.

9.1. Information about basic physical and chemical properties	
Physical state:	Solid
Appearance:	Powder.
Odour:	odourless.
Colour:	Silver grey.
Odour threshold:	No data available
pH:	No data available
Relative evaporation rate (butyl acetate=1):	No data available
Melting point:	No data available



in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

9.1. Information about basic physical and chemical properties	
Coagulation/freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Thermolysis temperature:	No data available
Flammability (solid, gas):	No data available
Vapour pressure:	No data available
Relative vapour density at 20 °C:	No data available
Relative density:	No data available
Solubility:	Product soluble in water.
Log Pow:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Explosion points	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and Reactivity

	10.1. Reactivity	
No additional information available		
	10.2. Chemical stability	
Stable under normal circumstances.		



in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

10.3. Potentially	hazaro	lous reac	tions
10.5. FULCITUALI	y Hazai C	ious i cac	いいい

Hazardous polymerisation: None.

10.4. Conditions to avoid

Air, damp.

10.6. Hazardous decomposition products

 $Flammable\ hydrogen\ gas\ may\ be\ released\ on\ contact\ with\ metallic\ substances.$

10.5. Chemically incompatible materials

Strong acids. Strong alkalines.

SECTION 11: Toxological Information

	11.1. Information on toxological effects
Acute toxicity:	Not classified
Skin corrosion/irritation:	Not classified Classification criteria are not met based on available data
Serious eye damage/irritation:	Not classified Classification criteria are not met based on available data
Respiratory or skin sensitisation	Not classified Classification criteria are not met based on available data
Germ cell mutagenicity:	Not classified Classification criteria are not met based on available data
Carcinogenicity:	Not classified Classification criteria are not met based on available data
Reproduction toxicity:	Not classified Classification criteria are not met based on available data
STOT-single exposure	Not classified Classification criteria are not met based on available data
STOT-single exposure	Not classified Classification criteria are not met based on available data
STOT-repeated exposure	Not classified Classification criteria are not met based on available data



in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

11.1. Information on toxological effects		
STOT-single exposure	Not classified Classification criteria are not met based on available data	
STOT-repeated exposure	Not classified Classification criteria are not met based on available data	
Inhalation hazard	Not classified Classification criteria are not met based on available data	
Potential hazardous effects on human health and potential symptoms	Classification criteria are not met based on available data	

SECTION 12: Ecological Information

12.1. Toxicity		
No additional information available		
12.2. Persistence and degradability		
Mixture of Aluminium powder - Zinc powder		
Persistence and degradability	Not classified	
	12.3. Bioaccumulation	
Mixture of Aluminium powder - Zinc powder		
Bioaccumulation	Not classified	
	12.4. Mobility in soil	
No additional information available		
12.5. Results of PBT and zPzB assessments		
No additional information available		
12.6. Other adverse effects		
	Avoid discharge into the environment	











in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

SECTION 13: Disposal Instructions

13.1. Waste treatment methods		
Recommendations for waste disposal:	Dispose of safely and in accordance with local/national regulations.	
Ecology - waste products:	Avoid discharge into the environment.	

SECTION 14: Transport Information

In accordance with ADR/RID/IMDG/IATA regulations.

444 110		
	14.1. UN number	
UN no.:	Not classified	
UN no. (IATA):	Not classified	
UN no. (IMDG):	Not classified	
UN no. (ADN):	Not classified	
14.2. Correct shipping name in accordance with the UN Model Regulations		
Correct shipping name:	ZINC DUST	
14.3. Transport hazards class		
Class (VN):	-	
Classification code (VN):	-	
Class (IATA):	-	
Class (IMDG)	-	
Class (ADN)	-	
Hazard labels (UN)	-	
·		
14.4. Packing group		
Packing group (UN):	-	
14.5. Environmental hazards		
14.5. Environmental nazards		













in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

14.6. Special precautions for the user

This material is tested according to UN criteria and is classified as non-flammable

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

Not applicable

SECTION 15: Regulations

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture		
15.1.1. EU regulations	No limitations in accordance with Annex XVII of REACH Do not contain REACH substance candidate list	
15.1.2. National regulations	No additional information available	
15.2. Chemical safety evaluation	No chemical safety evaluation has been conducted.	

SECTION 16: Other Information

Sources of data:	EC Regulation no. 1272/2008 OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 16 December 2008 re. the classification, labelling and packing of substances and mixtures as amended and repealed in Regulation 67/548/EEC and 1999/45/EC and as amended in EC Regulation no. 1907/2006.
Other information:	REACH Declaration: All information is based on current knowledge. Consistency of the information listed in this Safety Data Sheet with the information in the Chemical Safety Report is considered to the extent available at the time of compilation (see version number and date of revision). EXCLUSION OF LIABILITY The information provided in this sheet has been gathered from sources which, to the best of our knowledge, are reliable. However, the information was provided without any express or implied regarding its correctness. Conditions regarding the handling, storage, use or disposal of the product fall beyond the scope of our control and also possibly beyond the scope of our knowledge. For this and other reasons, we shall not assume any responsibility for, and expressly disclaim liability for, any loss, damage or expense whatsoever resulting from the handling, storage, use or disposal of the product.



titomic.com

in accordance with Regulation (EC) no. 1907/2006 (REACH)

MIXTURE OF ALUMINIUM POWDER - ZINC POWDER



Date of Issue: 23-08-2022 Date of Revision: Powder Number: LPP.A-20-10 Version: 2.0

For total content of R, H and EUH phrases:	
Flam. Sol. 1	Flammable solids, Category 1
Water-react. 2	Substances and mixtures which develop flammable gases when in contact with water, Categories 2
H228	Flammable solid
H261	Flammable gases released when in contact with water
R11	Highly flammable
R15	Forms extremely flammable gas when in contact with water
F	Highly flammable

SDSEU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purpose of the health, safety and environmental aspects of its use. It should therefore not be regarded as a guarantee for any specific property of the product.

