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

MIXTURE OF ALUMINIUM OXIDE POWDER - ZINC POWDER

Date of Issue: 19-08-2022 Date of Revision: Version: 2.0 Powder Number: LPP.K-00-11

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

1.1. Product identification	
Product type:	Mixture
Product code:	LPP.K-00-11

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	

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]

Aquatic Acute 1 H400 Aquatic Chronic 1 H410

For total text of H-phrases: see section 16

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

For total text of R-phrases: see section 16





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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):	GHS09	
Signal word (CLP):	Warning	
Hazard indication (CLP):	H410 - Highly poisonous to aquatic organisms, with long-term consequences	
Safety recommendations (CLP):	P273 - Avoid discharge into the environment P391 - Clean up leaked or spilled substances P501 - Dispose of content/packaging at a recognised waste disposal centre	

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
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	50-55	N; R50/53
Aluminium oxide powder (99.4% pure)	(CAS no.) 1344-28-1 (EC no.) 215-691-6 (REACH no.) 01-2119529248-35	45-55	Not classified
Name	Productidentification	%	Classification according to Regulation (EC) no. 1272/2008 [CLP]
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	50-55	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Aluminium oxide powder (99.4% pure)	(CAS no.) 1344-28-1 (EC no.) 215-691-6 (REACH no.) 01-2119529248-35	45-55	Not classified

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











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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 fresh air. Allow victim to rest.
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. Brush loose particles from skin. Bathe in plenty of water/apply wet bandage. If irritation persists, consult a physician.
First aid following contact with eyes:	If unsure what to do or if symptoms persist, consult a physician. Rinse with lukewarm water for 15 minutes. Lift eyelids using fingers and flush the eyes with plenty of water.
First aid following ingestion:	Induce vomiting if the victimis conscious. Rinse the mouth thoroughly with water. 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.:	Irritation of the airways.	
Symptoms/injuries following contact with skin:	Skin irritation.	
Symptoms/injuries following contact with eyes:	Irritation. Redness.	
Symptoms/injuries following ingestion:	Nausea. Diarrhoea. Abdominal pain. Vomiting.	
Chronic symptoms:	Breathing difficulties.	

4.3. Reporting the necessary immediate medical care and special treatment

No additional information available

Section 5: Firefighting Measures

5.1. Extinguishing media		
Suitable extinguishing media	Dry powder. 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/dothing, including protective breathing apparatus.	



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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:	Can form a flammable vapour-air mixture. Make sure there is adequate ventilation.	
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.	

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. Avoid discharge into the environment.

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 eyes and skin and do not inhale vapour and mist. Avoid creating dust		
Additionalinazards associated with handling.		
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. No open fire. Smoking prohibited. Avoid contact with air.	
7.2. S afe s	torage conditions, including incompatible products	
Storage conditions:	Store in a cool, dry, well-ventilated area. Keep containers closed when not in use.	
Incompatible substances:	Keep away from: Air, damp.	
Incompatible substances:	Remove all sources of ignition. Protect the product from direct sunlight.	
7.3. Specific end use(s)		



industrial.





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SECTION 8: Measures To Control Exposure/Personal Protection

8.1. Control parameters

No additional information available

8.2. Measures to control exposure		
Suitable technical measures:	Emergency eye baths and safety showers should be installed in the vicinity of all exposure hazard areas. Provide the area with local drainage/outlet or general ventilation in order to limit vapour concentration to a minimum. Do not exceed exposure limits (VLE/MAC).	
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. As a result of failed tests, no recommendation for glove material can be given for the product/ the preparation/ the chemical mixture. Select glove material according to penetration times, rates of diffusion and the degradation. 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:	Wear suitable protective clothing.	
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.
Colour:	Grey.
Odour:	Odourless.
Odour threshold:	No data available
pH:	No data available
Relative evaporation rate (butyl acetate=1):	No data available
Melting point:	No data available
Coagulation/freezing point:	No data available
Boiling point:	No data available





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9.1. Information about basic physical and chemical properties		
Flash point:	No data available	
Auto-ignition temperature:	No data available	
Thermolysis temperature:	No data available	
Flammability (solid, gas):	Not flammable, can catch fire spontaneously on exposure to air.	
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

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No additional information available

10.2. Chemical stability

Stable at room temperature and with normal use.

10.3. Potentially hazardous reactions

Hazardous polymerisation: None.

10.4. Conditions to avoid

Air, damp.

10.5. Chemically incompatible materials

Strong acids. Strong alkalines. Chlorine triflouride. Ethylene oxide.

10.6. Hazardous decomposition products

Releases hydrogen on reaction with metals. sodium-and potassium hydroxide. calcium hydroxide. H2O. acids.



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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-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		
Ecology - waste products:	Highly poisonous to aquatic organisms, with long-term consequences.	
12.2. Persistence and degradability		
Mixture of Aluminium oxide powder - Zinc powder		
Persistence and degradability	Not classified	
Aluminium oxide powder (1344-28-1)		
Persistence and degradability	Not classified	
	12.3. Bioaccumulation	
Mixture of Aluminium oxide powder - Zincpowder		
Bioaccumulation	Not classified	
Aluminium oxide powder (1344-28-1)		
Bioaccumulation	Not classified	
12.4. Mobility in soil		
No additional information available		













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12.5. Results of PBT and zPzB assessments		
No additional information available		
12.6. Other adverse effects		
	Avoid discharge into the environment	
SECTION 13: Disposal Instructions		
13.1. Waste treatment methods		

Avoid discharge into the environment.

content/packaging at a recognised waste disposal centre

Handle empty vessels with care as the vapour residue is flammable.

Dispose of safely and in accordance with local/national regulations. P501 - Dispose of

SECTION 14: Transport Information

Recommendations for waste disposal:

No additional information available:

Ecology - waste products:

In accordance with ADR / RID / IMDG / IATA regulations.		
14.1. UN number		
UN no.:	Not classified	
UN no. (IATA):	Not classified	
UN no. (IMDG):	Not classified	
UN no. (ADN):	Not classified	
14.2.0	Correct shipping name in accordance with the UN Model Regulations	
Correct shipping name:	METAL POWDER	
	14.3. Transport hazards class	
Class (VN):	-	
Classification code (VN):	-	
Class (IATA):	-	
Class (IMDG):	-	
Class (ADN):	-	
	14.4. Packing group	
Packing group (UN):	-	
14.5. Environmental hazards		
Environmentally hazardous:	<u>\(\frac{\frac}}}}}}{\frac{\fin}}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fi</u>	
Other information:	No additional information available	



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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.











SAFETY DATA SHEET

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

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For total content of R, H and EUH phrases:	
Aquatic Acute 1	Acute danger for the aquatic environment, Category 1
Aquatic Chronic 1	Chronic danger for the aquatic environment, Category 1
H400	Highly poisonous to aquatic organisms
H410	Highly poisonous to aquatic organisms, with long-term consequences.
R50/53	Highly poisonous to aquatic organisms,; can have long-term adverse effects on the aquatic environment.
N	Environmentally hazardous

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.