Material Safety Data Sheet

Completed 04-02-2026
Revision: (date) -
SDS version 1.0

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

1.1. Product Identifier
Trade Name: Arizona Test Dust (ATD)
Product- no.: -

1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended uses:
Test dust.

Uses advised against:
This product must not be used for purposes other than those recommended without first seeking the advice of the supplier.

1.3. Details of the supplier of the safety data sheet
Company and address:
Fiatec GmbH
Burgkunstadter Str. 3, Mainleus
DE-95336
Germany
+49 9229 9939-0
www.fiatec.com

Manufacturer:
Powder Technology Inc.
1300 Grey Fox Road
USA-55112 Arden Hills, MN
+1 952 894 -8737
www.powdertechnologyinc.com

Contact person and E-mail:
mattias.eber@fiatec.com

The Safety data sheet is completed and validated by:
Mediator ApS, Centervej 2, DK-6000 Kolding. Consultant: FJ

1.4. Emergency telephone number
Healthcare Professionals: +353 01 809 2566 (27/7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
CLP (1272/2008):
Eye Dam. 1;H318
STOT RE 1;H372

2.2. Label elements


Signal word:
Danger

Causes serious eye damage. (H318)
Causes damage to organs through prolonged or repeated exposure. (H372)

Do not breathe dust. (P260)
Wash hands thoroughly after handling. (P264)
Wear protective gloves/eyeprotection. (P280)
IF exposed or concerned: Get medical advice/attention. (P308 + P313)
Dispose of contents/container in accordance with local regulation. (P501)

2.3. Other hazards
-

Additional labelling:
-

Additional warnings
The product does not meet the criteria for PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1./3.2. Substances/Mixtures

Substance	EU-Index no. / REACH-Reg. no.	CAS-no.	EINECS-no.	CLP-classification	Wt/Wt %	Note
Quartz	- / 01-2120770509-45-XXXX	14808-60-7	238-878-4	STOT RE 1;H372	70 - < 75	-
Aluminum oxide	- / 01-2119529248-35-xxxx	1344-28-1	215-691-6	-	8 - 14	-
Iron (III) oxide	- / -	1309-37-1	215-168-2	-	4 - 7	-
Calcium oxide	- / -	1305-78-8	215-138-9	Skin Irrit. 2;H315, Eye Dam. 1;H318, STOT SE 3;H335	1 - < 5	-
Titanium dioxide	- / 01-2119489379-17-xxxx	13463-67-7	236-675-5	-	1 - < 5	-
Potassium oxide	- / -	12136-45-7	235-227-6	-	2 - 5	-
Sodium oxide	- / -	1313-59-3	215-208-9	-	1 - 4	-
Magnesium oxide	- / -	1309-48-4	215-171-9	-	1 - 2	-

See full text of H-phrases in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
In case of discomfort: Seek fresh air.
Seek medical advice in case of breathing difficulties.

Ingestion:
Wash out mouth thoroughly and drink 1-2 glasses of water in small sips.
Seek medical advice in case of discomfort.

Skin contact:
Remove contaminated clothing.
Wash the skin thoroughly with water and continue washing for a long time.
Seek medical advice in case of discomfort.

Eye contact:
Open eye wide, remove any contact lenses and flush immediately with water (preferably using eye wash equipment). Seek medical advice

Additional information:
When obtaining medical advice, show the safety data sheet or label.

4.2. Most important symptoms and effects, both acute and delayed
Causes serious eye damage.
Causes damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed
Show this safety data sheet to the doctor in attendance.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Surrounding fire:
Extinguish with powder, foam, carbon dioxide or water mist.
Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture
The product is not directly flammable. Avoid inhalation of vapour and fumes – seek fresh air.
Exposure to decomposition products may cause a health hazard.

5.3. Advice for firefighters
Fire fighters should wear appropriate protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
See section 8 for type of protective equipment.
Avoid breathing and contact with skin and eyes.

6.2. Environmental precautions
Avoid unnecessary release to the environment.

6.3. Methods and material for containment and cleaning up
Use water mist to bind dust.
Do not sweep – use vacuum cleaner to collect spillage.
Pick up mechanically.

6.4. Reference to other sections
See section 8 for type of protective equipment.
See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
See section 8 for information about precautions for use and personal protective equipment.
Use the product under well-ventilated conditions.
Smoking, eating and drinking in the work room is not permitted nor is storage of tobacco, food and drinks permitted. Personal protective equipment must not be worn during meal breaks. Running water and eye wash facilities must be easily accesible. Wash hands before breaks, after visits to the toilet and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities
The product must be stored safely and away from food, animal feeding stuffs, medicines, etc.
Keep in tightly closed original packaging.

7.3. Specific end use(s)
See application section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
The Health and Safety Authority, 2021 Code of Practice.

Substance	Long-term exposure limit ppm / mg/m^3	Short-term exposure limit ppm / mg/m^3	Note
Quarz, crystalline	- / 0,1	- / -	Carc
Aluminium oxides			
- total inhalable dust	- / 10	- / -	-
- respirable dust	- / 4	- / -	-
Iron oxide	- / 5	- / 10	-
Calcium oxide	- / 1	- / 4	Carc
Titanium dioxide			
- total inhalable dust	- / 10	- / -	-
- respirable dust	- / 4	- / -	-
Magnesium oxide			
- total inhalable dust	- / 4	- / -	-
- respirable dust	'- / 10	- / -	-

Carc = Capable of causing cancer and/or heritable genetic damage.

DNEL/PNEC-values:
DNEL Aluminum oxide

	Workers	Consumers
Inhalation - Chronic Systemic	3 mg/m³	0,75 mg/m³
Inhalation - Chronic Local	3 mg/m³	0,75 mg/m³
Oral - Chronic Systemic	-	1,32 mg/kg bw/day

DNEL Calcium oxide

	Workers	Consumers
Inhalation - Chronic Local	1 mg/m³	1 mg/m³
Inhalation - Acute Local	4 mg/m³	4 mg/m³

DNEL Titanium dioxide

	Workers	Consumers
Inhalation - Chronic Local	1,25 mg/m³	210 µg/m³

DNEL Potassium oxide

	Workers	Consumers
Inhalation - Chronic Systemic	90,3 µg/m³	16 µg/m³
Inhalation - Acute Systemic	15,83 mg/m³	7,9 mg/m³
Inhalation - Chronic Local	15,83 mg/m³	7,913 mg/m³
Inhalation - Acute Local	15,83 mg/m³	7,913 mg/m³
Dermal - Chronic Systemic	19,4 µg/kg bw/day	2,31 µg/kg bw/day
Dermal - Acute Systemic	200 mg/kg bw/day	100 mg/kg bw/day
Dermal - Chronic Local	1,124 mg/cm²	0,562 mg/cm²
Dermal - Acute Local	1,124 mg/cm²	0,562 mg/cm²
Oral - Chronic Systemic	-	0,517 mg/kg bw/day
Oral - Acute Systemic	-	182 mg/kg bw/day

PNEC Calcium oxide

Fresh water	0,37 mg/L
Intermittent releases (Fresh water)	0,37 mg/L
Marine water	0,24 mg/L
Intermittent releases (Marine water)	0,24 mg/L
Soil	817,4 mg/kg soil dw

PNEC Potassium oxide

Fresh water	8,7 mg/L
Intermittent releases (Fresh water)	6,6 mg/L
Marine water	87 µg/L
Intermittent releases (Marine water)	66 µg/L
Soil	3,4 mg/kg soil dw

8.2. Exposure controls
There are no exposure scenarios for this product.

Appropriate engineering controls:
Wear the personal protective equipment specified below.
Wash hands before breaks, before using restroom facilities, and at the end of work.
Do not eat, drink or smoke when using this product.

Personal protective equipment:

Respiratory protection:
In case of insufficient ventilation, wear respiratory protective equipment with P2 filter.
Respiratory protective equipment shall comply with one of the following standards: EN 136/140/145.

Hand protection:
Wear protective gloves made of nitrile rubber (> 0.11 mm). Protective gloves conforming to EN 374.
Penetration time: 480 min

Eye/face protection:
Wear safety goggles if there is a risk of dust contact with eyes.
Eye protection conforming to EN 166.

Skin protection:
Wear suitable protective clothing.

Environmental exposure controls:
Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Solid substance
Colour:	Yellow - reddish brown
Odour:	Odourless
Melting point/ Freezing Point (°C):	-
Boiling point or initial boiling point and boiling range (°C):	-
Flammability:	-
Lower and upper explosion limit (vol-%):	-
Flash point (°C):	-
Auto-ignition temperature (°C):	-
Decomposition temperature (°C):	-
pH:	-
Kinematic viscosity (mm2/s):	-
Solubility:	Immiscible with water
Partition coefficient n-octanol/water (log value)	-
Vapour pressure:	-
Density and/or relative density:	2,5 - 2,7 g/cm3
Relative vapour density:	-
Particle characteristics:	-

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid heating and contact with ignition sources.
Avoid contact with moisture and water.

10.5. Incompatible materials

Avoid contact with strong oxidising agents.
Avoid contact with strong acids.
Avoid contact with hydrocarbons (halogenated compounds).

10.6. Hazardous decomposition products

No special precautions regarding contact with other materials at the recommended storage conditions.

SECTION 11: Toxicological information

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

Acute toxicity:

Based on the existing data, the classification is not met.

Substance	exposure	Species	Test	Result
Aluminum oxide	Oral	Rat	LD50	> 10000 mg/kg bw
Aluminum oxide	Inhalation	Rat	LC50/ 4 Hours	> 2,3 mg/L air
Iron (III) oxide	Oral	Rat	LD50	> 5000 mg/kg bw
Iron (III) oxide	Inhalation	Rat	LC50/ 4 Hours	5,05 mg/L air
Calcium oxide	Oral	Rat	LD50	> 2000 mg/kg bw
Calcium oxide	Inhalation	Rat	LC50/ 4 Hours	> 6,04 mg/L air (nominal)
Calcium oxide	Dermal	Rat	LD50	> 2500 mg/kg bw
Titanium dioxide	Inhalation	Rat	LC50/ 4 Hours	3,43 mg/L air
Potassium oxide	Oral	Rat	LD50	> 2000 mg/kg bw
Potassium oxide	Dermal	Rat	LD50	> 5000 mg/kg bw

Skin corrosion/irritation:

May cause slight irritation.

Serious eye damage/irritation:

Causes serious eye damage.

Respiratory or skin sensitisation:
Based on the existing data, the classification is not met.

Germ cell mutagenicity:
Based on the existing data, the classification is not met.

Carcinogenicity:
Based on the existing data, the classification is not met.

Reproductive toxicity:
Based on the existing data, the classification is not met.

STOT-single exposure:
Based on the existing data, the classification is not met.

STOT-repeated exposure:
Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard:
Based on the existing data, the classification is not met.

11.2. Information on other hazards
Test data are not available.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Test duration	Species	Test	Result
Iron (III) oxide	48 Hours	Daphnia	EC50	> 100 mg/L
Iron (III) oxide	72 Hours	Algae	EC50	> 20 mg/L
Calcium oxide	96 Hours	Fish	LC50	50,6 mg/L
Calcium oxide	48 Hours	Daphnia	EC50	49,1 mg/L
Calcium oxide	72 Hours	Algae	EC50	184,57 mg/L
Potassium oxide	96 Hours	Fish	LC50	917,6 mg/L
Potassium oxide	48 Hours	Daphnia	EC50	630 mg/L
Potassium oxide	96 Hours	Algae	EC50	1337 mg/L

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
No data.	-	-	-

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow
No data.	-	-

12.4. Mobility in soil
Test data are not available.

12.5. Results of PBT and vPvB assessment
The product does not meet the criteria for PBT or vPvB.

12.6. Endocrine disrupting properties
Test data are not available.

12.7. Other adverse effects
None.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
The product is covered by the regulations on dangerous waste.
Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

EWC-Code	Description
01 03 05	Other tailings containing hazardous substances

Specific labelling:
-

Contaminated packaging:
Empty packaging and residues must be disposed of through the municipal waste collection service for hazardous waste.

SECTION 14: Transport information

The product is not covered by the rules for transport of dangerous goods by road and sea according to ADR, IMDG and IATA.

14.1 -14.4.
ADR
-
IMDG/IATA
-

14.5. Environmental hazards
-

14.6. Special precautions for user
-

14.7. Maritime transport in bulk according to IMO instruments
Not relevant.

SECTION 15: Regulatory information

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

Sources:
The Health and Safety Authority, 2021 Code of Practice.

Additional labelling:
-

Restrictions for application:
-

Demands for specific education:
-

15.2. Chemical safety assessment
None.

SECTION 16: Other information

According to EU regulation 1907/2006 (REACH)

Other information:
Sources:
EC regulation 1907/2006 (REACH), with amendments.
EC Regulation 1272/2008 (CLP), with amendments.
Directive 2008/98/EC
ECHA - The European Chemicals Agency

Full text of H-phrases as mentioned in section 2+3:

H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.

Classification according to Regulation (EC) Nr. 1272/2008:

Eye Dam. 1;H318	Calculation method
STOT RE 1;H372	Calculation method

Abbreviations and acronyms used in the safety data sheet:
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals. Regulation (EC) No 1907/2006.
CLP: Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.
CAS-Number.: Chemical Abstracts Service number.
EC-Number.: EINECS and ELINCS Number (see also EINECS and ELINCS).
DNEL: Derived No Effect Level.
PNEC(s): Predicted No Effect Concentration(s).
STOT: Specific Target Organ Toxicity.
LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).
LC50: Lethal Concentration to 50 % of a test population.
EC50: The effective concentration of substance that causes 50% of the maximum response.
PBT: Persistent, Bioaccumulative and Toxic.
vPvB: Very Persistent and Very Bioaccumulative.
NOEC: The highest tested concentration at which, in a study, no statistically significant effect is observed in the exposed population compared with an appropriate control group.
NOAEL: The highest tested dose or exposure level at which there are no statistically significant increases in the frequency or severity of adverse effects between the exposed population and an appropriate control group; some effects may be produced at this level, but they are not considered adverse or precursors of adverse effects.

Other:
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

Minor changes have been made in following sections:
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This material safety data sheet replaces version:
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