

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STANDART Zinc flake GTT Zinc Powder

Version 2.5 Revision Date: 06.12.2019 SDS Number: 102000002493 Print Date: 07.08.2020
Date of first issue: 24.01.2014

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

1.1 Product identifier

Trade name : STANDART Zinc flake GTT Zinc Powder
Product code : 040004K60
Index-No. : 030-001-01-9

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

This information is not available.

1.3 Details of the supplier of the safety data sheet

Company :

E-mail address of person responsible for the SDS : msds.eckart@altana.com

1.4 Emergency telephone number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture


Classification (REGULATION (EC) No 1272/2008)

Short-term (acute) aquatic hazard, Category 1 H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Category 1 H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms : 

Signal word : Warning

Hazard statements : H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
Response:
P391 Collect spillage.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : zinc powder — zinc dust (stabilised)
Index-No. : 030-001-01-9
EC-No. : 231-175-3

Hazardous components

| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification REGULATION (EC) No 1272/2008 | Concentration (% w/w) |
|--------------------------------------|---|--|--------------------------|
| zinc powder — zinc dust (stabilised) | 7440-66-6 () 231-175-3 030-001-01-9 01-2119467174-37 | Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | >= 50 - <= 100 |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move the victim to fresh air.
Remove from exposure, lie down.

No hazards which require special first aid measures.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

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- In case of skin contact : Wash off immediately with soap and plenty of water.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Dry sand
Special powder against metal fire
- Unsuitable extinguishing media : Carbon dioxide (CO₂)
Water

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Contact with water liberates extremely flammable gas (hydrogen).
- Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Evacuate personnel to safe areas.
Avoid dust formation.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Do not flush with water.

Use mechanical handling equipment.

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid creating dust.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Fine dust dispersed in air may ignite. Keep away from heat and sources of ignition. No smoking. Take measures to prevent the build up of electrostatic charge. Earthing of containers and apparatuses is essential. Use explosion-proof equipment.

Normal measures for preventive fire protection.

Hygiene measures : General industrial hygiene practice. Do not smoke. Wash hands before breaks and at the end of workday. Keep away from food and drink. Keep away from tobacco products.

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Wash hands before breaks and at the end of workday.

Dust explosion class : St2

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep container tightly closed in a dry and well-ventilated place. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.

Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : Protect from humidity and water.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|--------------------------------------|--|-------------------------------|----------------------|---------|
| zinc powder — zinc dust (stabilised) | 7440-66-6 | TWA (Inhalable) | 10 mg/m ³ | GB EH40 |
| Further information | The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |
| | | TWA (Respirable) | 4 mg/m ³ | GB EH40 |
| Further information | The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |

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Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|--------------------------------------|-----------|-----------------|----------------------------|-----------------------|
| zinc powder — zinc dust (stabilised) | Workers | Inhalation | Long-term systemic effects | 5 mg/m ³ |
| | Workers | Skin contact | Long-term systemic effects | 83 mg/kg |
| | Consumers | Ingestion | Long-term systemic effects | 0.83 mg/kg |
| | Consumers | Skin contact | Long-term systemic effects | 83 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 2.5 mg/m ³ |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
|--------------------------------------|---------------------------|-------------|
| zinc powder — zinc dust (stabilised) | Fresh water | 0.0206 mg/l |
| | Fresh water sediment | 117.8 mg/kg |
| | Marine water | 0.0061 mg/l |
| | Soil | 35.6 mg/kg |
| | Marine sediment | 56.5 mg/kg |

8.2 Exposure controls

Personal protective equipment

Eye protection : Goggles

Safety glasses

Hand protection

Material : Leather

Remarks

: Leather gloves The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
Recommended preventive skin protection The exact break through time can be obtained from the protective glove producer and this has to be observed.
The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection

: Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection

: Use suitable breathing protection if workplace concentration requires.
Respirator with a dust filter
P1 filter

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|--------------------------|
| Appearance | : solid |
| Colour | : grey |
| Odour | : odourless |
| Odour Threshold | : No data available |
| pH | : No data available |
| Freezing point | : No data available |
| Boiling point/boiling range | : No data available |
| Flash point | : No data available |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : No data available |
| Self-ignition | : No data available |
| Auto-ignition temperature | : No data available |
| Smoldering temperature | : No data available |
| Decomposition temperature | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Upper explosion limit / Upper flammability limit | : No data available |
| Lower explosion limit / Lower flammability limit | : > 200 g/m ³ |
| Vapour pressure | : No data available |
| Relative vapour density | : No data available |
| Relative density | : No data available |
| Density | : No data available |
| Bulk density | : No data available |
| Solubility(ies) | |

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Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Flow time : No data available

9.2 Other information

Dust deflagration index (Kst) : > 200 - 300 m.b./s

Dust explosion class : St2

Minimum ignition energy : > 10 mJ

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts with alkalis, acids, halogenes and oxidizing agents.
Contact with acids and alkalis may release hydrogen.
Avoid dust clouds, they may form explosible dust-air-mixture.
Risk of dust explosion.

No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : Acids
Bases
Oxidizing agents

10.6 Hazardous decomposition products

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Contact with water or humid air : This information is not available.

Thermal decomposition : This information is not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Components:

zinc powder — zinc dust (stabilised):

Acute oral toxicity : (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 5.41 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

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Further information

Product:

Remarks: No data available

Components:

zinc powder — zinc dust (stabilised):

Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

zinc powder — zinc dust (stabilised):

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

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Components:

zinc powder — zinc dust (stabilised):

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

European Waste Catalogue : 12 01 04 - non-ferrous metal dust and particles
European Waste Catalogue : 10 03 21 - other particulates and dust (including ball-mill dust) containing hazardous substances

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number

ADR : UN 3077
IMDG : UN 3077
IATA : UN 3077

14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Zinc powder, stabilized)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Zinc powder, stabilized)

IATA : Environmentally hazardous substance, solid, n.o.s.
(Zinc powder, stabilized)

14.3 Transport hazard class(es)

ADR : 9

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IMDG : 9

IATA : 9

14.4 Packing group

ADR

Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9

IMDG

Packing group : III
Labels : 9
EmS Code : F-A, S-F
Remarks : IMDG Code segregation group 7 - Heavy metals and their salts

IATA (Cargo)

Packing instruction (cargo aircraft) : 956
Packing instruction (LQ) : Y956
Packing group : III
Labels : Class 9 - Miscellaneous dangerous substances and articles

IATA (Passenger)

Packing instruction (passenger aircraft) : 956
Packing instruction (LQ) : Y956
Packing group : III
Labels : Class 9 - Miscellaneous dangerous substances and articles

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

IATA (Cargo)

Environmentally hazardous : yes

14.6 Special precautions for user

Remarks : For single packagings $\leq 5L / 5 \text{ kg}$, or combination packagings containing inner packagings $\leq 5L / 5 \text{ kg}$ net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

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SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

15.2 Chemical safety assessment

SECTION 16: Other information

Full text of other abbreviations

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for

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Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / EN