Material Data Safety Sheet

According to (EG) Nr. 1907/2006 (REACH)

Updated:12.04.2011

Zinc Powder Art. Nr. 31979 31978

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name: Zinc Powder Product Number: 31978, 31979

Company:

Gatt-Koller GmbH Swarovskistrasse 74 A-6067 Absam

Phone: 0043-5223-44216-0 Fax: 0043-5223-43216

Emergency Phone: 0049-551-19240

2. HAZARDS IDENTIFICATION

Label elements Pictogram



Signal word Warning

Hazard statement(s)

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308 + P313 IF exposed or concerned: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

P338 present and easy to do. Continue rinsing.
P501 Dispose of contents/container to ...

(67/548/EWG oder 1999/45/EG)

Symbol: F (Highly flammable) N (Dangerous for the environment)

R-phrases:

17 Spontaneously flammable in air

15 Contact with water liberates extremely flammable gases.

50/53 Very toxic to aquatic organisms, may cause long adverse effects in the aquatic environment

3. Composition/information on ingredients

Identification and amount of the components:

CAS: 7440-66-6 Molecula weight:65.38 EC index no,:030-002-00-7 EC number:231-175-3

Formula: Zn

4. First aid measures After inhalation: Fresh air.

After skin contact: wash off with water.

After ingestion: make victim drink plenty of water, induce vomiting, summon doctor. After eye contact: rinse out with plenty of water with the eyelid held wide open.

5. Fire-fighting measures

Suitable extinguishing media: Metal fire powder. Cover with dry sand or cement.

Extinguishing media not to be used: water

Special risks: combustible Danger of dust explosion!. Keep away from flammable organic substances.

Α

self-ignition can happen.

Special protective equipment for fire fighting: Do not stay in dangerous zone without self-contained breathing apparatus.

Zinc, powder, extra pure

6. Accidental release measures

Person-related precautionary measures: Avoid generation of dusts; do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Environmental precautions: Do not allow to enter sewerage system, danger of explosion!.

Procedures for cleaning / absorption: Take up dry. Forward for disposal. Clean up.

7. Handling and storage

Handling: Take measures to prevent electrostatic charging. Storage: Store tightly closed, dry, in a well-ventilated place. Store at $+ 15^{\circ}$ C to $+ 25^{\circ}$ C. Keep away from

sources of ignition and heat.

8. Exposure controls/personal protection Exposure limit values: (MAK, Germany):

Exposure controls:

Occupational exposure controls: The personal protective equipment must be selected according to the working place, based on the concentration and amount of the dangerous substance. The supplier should

indicate the stability of the personal protective equipment to chemical reagents.

Respiratory protection: required when dusts are generated.

Hand protection: required Eye protection: required

Industrial hygiene: Change contaminated clothing. Wash hands after working with substance.

9. Physical and chemical properties

General information:

Form: solid Colour: grey Odour: odourless

Important health, safety and environmental information:

pH value: ---

Boiling temperature: 908 °C

Flash point: ---

Explosion limits (low): --Explosion limits (high): ---

Vapour pressure: (487 °C) 1,33 hPa

Density (20 °C): ---

Solubility in water: (20 °C): insoluble (highly reactive)

Solubility in:

acids: (rigorous reaction)

Viscosity: ---Refractive index: ---

Melting temperature: 420 °C Ignition temperature: 460 °C Zinc, powder, extra pure 10. Stability and reactivity

Conditions to be avoided: moisture

Substances to be avoided: alkali hydroxides, air, halogen-halogen compounds, water, acids,

halogens,

sulfur, chlorates, alkali oxides, carbon disulfide, hydroxylamine, hydrazine and derivatives, ammonium compounds, halogenated hydrocarbons, azides, benzene/benzene derivatives, various metals. Hazardous decomposition products: Do not allow product to come into contact with water, the

following

may develop: hydrogen.

Further information: Combustible 11. Toxicological information

Acute toxicity:

Quantitative data on the toxicity of this product are not available.

Subacute to chronic toxicity:

Carcinogenicity: No indication of carcinogenic activity.

Mutagenicity: No indication of mutagenic activity.

Bacterian mutagenicity: Salmonella typhimurium: negative

Bacterian mutagenicity: Ames-Test: negative

Teratogenicity: It is not suspected to harm the reproductive capacity. Available data are not enough to value the teratogenicity of the product.

Further toxicological information: After inhalation: Irritating to respiratory system.

After skin contact: Slight irritations.

After absorption: fever, muscular impairments, pain, circulatory collapse, nausea and vomiting. Further information:

The following applies to zinc compounds in general: Only very slightly absorbable via the gastrointestinal

tract, has an adstringent effect on mucous membranes. Metal-fume fever after inhalation of large quantities.

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Ecotoxic effects: Product reacts with water. After reaction, harmful effect on aquatic organisms.

Bioaccumulative potential: Bioaccumulation

Bioconcentration factor: < 500 (experimentally)

Persistence and degradability: Methods for determination of biodegradability can not be applied to inorganic substances.

Further ecologic data:

No ecological problems are to be expected when the product is handled and used with due care and attention.

13. Disposal considerations

Product: There are no uniform EU Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EU member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of

special waste.

Packaging: Disposal in compliance with official regulations. Handle contaminated packaging in the same

way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

14. Transport information

Road transport: UN-No: 1436

ADR class: 4.3 WS II

Subrisk:4.2

Correct technical name: ZINC POWDER

Sea transport: UN-No: 1436 IMDG class: 4.3 II Label: 4.3 + 4.2

EMS-Number: F-G S-O

Correct technical name: ZINC POWDER

Air transport: UN-No: 1436

IATA/ICAO class: 4.3 II

Correct technical name: ZINC POWDER

15. Regulatory information

Pictogram



Signal word Warning

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P338 present and easy to do. Continue rinsing.

P501 Dispose of contents/container to ...

EC-classification: This product has been included in the dangerous substances index with its corresponding EC index number, so it has been classified according to the 67/548/EEC directive and its later adaptations.

Symbol: F (Highly flammable) N (Dangerous for the environment)

R-phrases:

17 Spontaneously flammable in air

15 Contact with water liberates extremely flammable gases.

50/53 Very toxic to aquatic organisms, may cause long adverse effects in the aquatic environment

S-phrases: 7/8-43.3 Keep container tightly closed and dry. In case of fire, use powder extinguisher. Never

use water. 60 This material and its container must be disposed of as hazardous waste

EC-Index-No: 030-002-00-7

Water pollution class 2 (polluting substance) VwVwS Anh. 3 KennNr. 7325

Storage class VCI 4.3

16. OTHER INFORMATION

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Gatt-Koller GmbH shall not be held liable for any damage resulting from handling or from contact with the above product.

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

Gatt-Koller GmbH Swarovskistrasse 74 A-6067 Absam

Phone: 0043-5223-44216-0 Fax:0043-5223-43216