



Safety Data Sheet

Zinc granular



Section 1: Chemical Product and Company Identification

Product Name: Zinc granular

Contact Information:

Catalog Codes:

CAS#: 7440-66-6

Email: info@drm-chem.com

RTECS: -

Address: #7, Afshar javan Alley, Sohrevardi St, Tehran, Iran

TSCA: -

post code: 1551818111

Synonym: -

Tehran Sales: +98 21 88177760

Chemical Name: Zinc granular

Order Online: Drm-chem.com

Chemical Formula: Zn

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Zinc granular	7440-66-6	100 %

Toxicological Data on Ingredients:

Section 3: Hazards Identification

3.1 Classification of the substance or mixture

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

3.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal Word
Hazard Statements
H410

Warning

Very toxic to aquatic life with long lasting effects

Precautionary Statements
P273
P391
P501

Avoid release to the environment.
Collect spillage.
Dispose of contents/ container to an approved waste disposal plant.
none

Supplemental Hazard Statements

Reduced Labelling (<= 125 ml)

Pictogram



Signal Word
Hazard Statements
Precautionary Statements

Warning
none
none

Supplemental Hazard Statements

None

3.3 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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation

(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 4: First Aid Measures

4.1 Description of first-aid measures

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 3.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5: Fire and Explosion Data

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.
Not combustible.
Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus

5.4 Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling

For precautions see section 3.2.

7.2 Conditions for safe storage, including any incompatibilities **Storage conditions**

storage conditions

Tightly closed. Dry.

Recommended storage temperature see product label.

Storage class Storage class (TRGS 510): 11: Combustible Solids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

Occupational Exposure Limits

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). safety goggles

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Break through time: 480 min

Glove thickness: 0,11 mm

Protective index: Splash contact

Manufacturer: KCL 741 Dermatril® L

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

Section 9: Physical and Chemical Properties

Physical state	Granules
Color	Silver
Odor	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	906 °C
Flash point	Not applicable
Evaporation rate	No data available
Flammability	No data available
Upper/lower flammability or explosive limits	No data available
Vapor pressure	No data available
Density	7,13 g/cm ³ at 20 °C
Relative density	No data available
Water solubility	0,0004 g/l at 20 °C
Partition coefficient:	Not applicable for inorganic substances

n-octanol/water

Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Relative vapor density	No data available
Other safety information	
Particle size	0,3 - 8 mm - Particle size

Section 10: Stability and Reactivity Data**10.1 Reactivity**

Contact with acids liberates very toxic gas.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

A risk of explosion with:

ammonium compounds
azides
Barium nitrate
barium peroxide
chlorates
cadmium
chromium(VI) oxide
hydroxylamine
hydrazine and derivatives
Halogenated hydrocarbon
Hydrogen
metal catalysts
Nitric acid
Nitro compounds

Nitrates

potassium chlorate

potassium nitrate

performic acid

sulfur

sodium chlorate

tetrachloromethane

Oxidizing agents

ammonium nitrate

with

Water

Iodine

With

Water

Risk of ignition or formation of inflammable gases or vapours with:

Arsenic oxides

alkali hydroxides

alkalines

Fluorine

Nitrobenzene

Sodium hydroxide

Selenium

Tellurium

Chlorine

With

Moisture.

Exothermic reaction with:

carbon disulfide

acids

halogen-halogen compounds

hexachloroethane

silver

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

no information available

10.6 Hazardous decomposition products

In the event of fire: see section 5

Section 11: Toxicological Information

11.1 Information on toxicological effects

Mixture**Acute toxicity**

LD50 Oral - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - > 5,41 mg/l - dust/mist

(OECD Test Guideline 403)

Dermal: No data available

Skin corrosion/irritation

Remarks: The value is given in analogy to the following substances: Zinc oxide

Serious eye damage/eye irritation

Eyes – Rabbit

Result: Eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Remarks: (IUCLID)

Carcinogenicity

Carcinogenicity - No indication of carcinogenic activity. (IUCLID)

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information**Endocrine disrupting properties****Product:**

Assessment: The substance/mixture does not contain components considered to have endocrine

disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

After absorption:

Fever
muscular symptoms
Pain
cardiovascular disorders
Nausea
Vomiting

On the basis of the morphology of the product, no hazardous properties are to be expected when it is handled and used with appropriate care.

Handle in accordance with good industrial hygiene and safety practice.

Section 12: Ecological Information

12.1 Toxicity

Mixture

Toxicity to fish	flow-through test LC50 - Fish - 0,439 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Ceriodaphnia dubia (water flea) - 0,416 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae:	static test NOEC - Pseudokirchneriella subcapitata (green algae) - 0,05 mg/l - 72 h (OECD Test Guideline 201) static test IC50 - Pseudokirchneriella subcapitata (green algae) - 0,150 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	static test IC50 - activated sludge - 0,35 mg/l - 4 h (ISO 9509) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Zinc sulphate

Toxicity to fish (Chronic toxicity)

flow-through test NOEC - Fish - 0,169 mg/l - 30 d

Toxicity to daphnia
and other aquatic invertebrates
(Chronic toxicity)

semi-static test NOEC - Daphnia magna (Water
flea) - 0,082 mg/l - 21 d
(OECD Test Guideline 211)
Remarks: (in analogy to similar products) The
value is given in analogy to the following
substances: zinc chloride

12.2 Persistence and degradability

Not applicable for inorganic substances

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB 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 Endocrine disrupting properties

Product:

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

Section 13: Disposal Considerations

13.1 Waste treatment methods

No data available

Section 14: Transport Information

14.1 UN number

ADR/RID: UN 3077

IMDG: UN 3077

IATA: UN 3077

14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc; metallic, grains, coarse powder $\geq 0.3\text{mm}$)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc; metallic, grains, coarse powder $\geq 0.3\text{mm}$)

IATA: Environmentally hazardous substance, solid, n.o.s. (zinc; metallic, grains, coarse powder $\geq 0.3\text{mm}$)

14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA: 9

14.4 Packaging group

ADR: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: yes

14.6 Special precautions for user

Tunnel restriction code: (-)

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids. Packages smaller than or equal to 5 kg / L, not dangerous goods of Class 9

Section 15: Other Regulatory Information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use : zinc; metallic, grains, coarse powder $\geq 0.3\text{mm}$
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

National legislation Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1 ENVIRONMENTAL HAZARDS

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

Section 16: Other Information

References: Not available

Other Special Considerations: Not available

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