

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

1.1 Product identifier

Active Zinc Oxide RC100bet+

Index number: 030-013-00-7
REACH registration number: substance exempted from registration according to article 2 p. 7d of REACH regulation.

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

Relevant identified uses: manufacture of rubber, ceramics, pharmaceutical products, paints and varnishes.

Uses advised against: not determined.

1.3 Details of the supplier of the safety data sheet

Supplier: **Recynk Sp. z o.o.**
Address: 59-524 Pielgrzymka, Pielgrzymka 150a, Poland
Telephone/Fax: +48 76 877 51 09
E-mail address for a competent person responsible for sds: biuro@thetaconsulting.pl

1.4 Emergency telephone number

112

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Hazard pictograms and signal words



WARNING

Hazard statements

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.
P391 Collect spillage.
P501 Dispose of contents/container to properly labeled containers for the selective collection of waste, emptied by an authorized company.

2.3 Other hazards

The substance does not fulfill criteria for PBT or vPvB substance in accordance with Annex XIII of REACH Regulation. The substance is not included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or in the list of substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605.

Section 3: Composition/information on ingredients

3.1 Substances

CAS number:	1314-13-2	Zinc oxide	
EC number:	215-222-5	Aquatic Acute 1 H400 (M=1), Aquatic Chronic 1 H410 (M=1)	min. 98%
Index number:	030-013-00-7		

Section 4: First aid measures

4.1 Description of first aid measures

Skin contact: take off contaminated clothes. Contaminated parts of the skin wash with plenty of water and soap. In case of disturbing symptoms, consult a doctor.

Eye contact: contaminated eyes rinse with water for 10-15 minutes. Avoid strong stream of water – risk of damage of the cornea. Protect non-irritated eye, remove contact lenses. In case of disturbing symptoms, contact an ophthalmologist.

Ingestion: do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical advice if disturbing symptoms occur, show label or container.

Inhalation: remove the victim to fresh air. Keep warm and calm. Consult a doctor, if disturbing symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact: mechanical irritation, redness, lachrymation.

Skin contact: may cause irritation, redness, itching.

Inhalation: possible sore throat, cough, shortness of breath, irritation of the respiratory tract. Inhalation of oxide fumes may cause flu-like symptoms (metal fume fever). Within 24-48 hours there may be chills, fever, muscle aches, dry mouth and throat and headache. Symptoms subside after the expulsion of the substance from the body.

After dust entering into the mouth: may cause gastrointestinal tract irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: sand, dry powder, water spray. Use extinguishing measures that are appropriate to the environment.

Unsuitable extinguishing media: do not use strong stream of water.

5.2 Special hazards arising from the substance or mixture

During combustion harmful gases may be produced, e.g. carbon oxides. Do not inhale combustion products, it may cause health risk.

5.3 Advice for firefighters

The substance is non-flammable. Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Do not let extinguishing media to reach drainage system. Collect used extinguishing agents.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that effects of the breakdown are removed only by qualified personnel. Avoid eyes and skin contact. Avoid dust forming and inhalation. Ensure adequate ventilation. Prevent electrostatic charging. Use non-sparking tools.

6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

6.3 Methods and material for containment and cleaning up

Released product collect mechanically into labeled containers. Moisten the product or use industrial vacuum cleaner to prevent dust spreading. Treat collected material as a waste. Clean and ventilate contaminated place.

6.4 Reference to other sections

Appropriate conduct with waste product – section 13. Personal protection equipment – section 8.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Avoid eyes and skin contact. Avoid dust forming and inhalation. Before break and after work wash hands. Ensure adequate ventilation. Prevent electrostatic charging. Ground used equipment. Use non-sparking tools.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry, covered storage place at room temperature in original packaging. Do not store together with food, animal feed and drinking water. Do not store with incompatible materials (see subsection 10.5). Protect from water and moisture.

7.3 Specific end use(s)

No information about uses other than mentioned in subsection 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Substance has no occupational exposure limit values established on the European Union level.
(Legal Basis: Commission Directive 91/322/EWG as amended, 98/24/WE as amended, 2000/39/WE as amended, 2004/37/WE as amended).

Please check any national occupational exposure limit values in your country.

8.2 Exposure controls

Appropriate engineering controls

Observe good occupational hygiene and safety practices. Ensure adequate general and/or local ventilation to ensure the maintenance of concentrations of hazardous components in the air below the exposure limit values. Local exhaust is preferred as it removes contaminants from where they originate, preventing them from spreading. Do not eat, drink or smoke when using the product. Before break and after work wash hands carefully. Avoid eyes and skin contamination. Avoid dust forming and inhalation.

Individual protection measures, such as personal protective equipment

The necessity to use and selection of appropriate personal protective equipment should take into account the type of risk posed by the product, working conditions and the way of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

Hand and body protection

Wear protective gloves (EN 374), if necessary. Kind, thickness and breakthrough of gloves select at the workplace individually. Gloves made of cotton, leather or rubber are recommended. Wear protective clothing.

The material that the gloves are made of must be impenetrable and resistant to the product's effects. The selection of material must be performed with consideration of breakthrough time, penetration speed and degradation. Moreover, the selection of proper gloves depends not only on the material, but also on other quality features and changes depending on the manufacturer. The producer should provide detailed information regarding the exact breakthrough time. This information should be followed.

Eye protection

Safety glasses (EN166) are recommended.

Respiratory protection

In case of dusty use the filtration equipment or absorbing filter.

Thermal hazard

Not applicable.

Environmental exposure controls

Avoid environment contamination, do not empty into drains. Possible emissions from the ventilation systems and processing equipment should be controlled in order to determinate their compatibility with environmental protection regulations.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	solid/dust
Colour:	white or almost white
Odour:	odourless
Melting point/freezing point:	1 970 – 1 975 °C
Boiling point or initial boiling point and boiling range:	not applicable
Flammability:	non-flammable product
Lower and upper explosion limit:	not applicable, product is solid
Flash point:	not applicable, product is solid
Auto-ignition temperature:	not applicable, product is solid
Decomposition temperature:	not applicable
pH (water solution 10 g/l; 20 °C):	6-8
Kinematic viscosity:	not applicable, product is solid
Solubility (20 °C):	in water - 0,0016 g/l
Partition coefficient n-octanol/water (log value):	not applicable
Vapour pressure:	not applicable
Density and/or relative density:	5,4 g/cm ³

Relative vapour density: not determined
Particle characteristics: specific surface area BET: 28-32 m²/g

9.2 Other information

bulk density: 400 – 600 kg/m³

Section 10: Stability and reactivity

10.1 Reactivity

The product is less reactive. Does not undergo hazardous polymerization. See also subsections 10.3 and 10.5

10.2 Chemical stability

The product is stable under normal conditions of handling and storage.

10.3 Possibility of hazardous reactions

Risk of explosion in contact with magnesium. The substance can react dangerously with chlorinated rubber and linseed oil.

10.4 Conditions to avoid

Moisture, high temperature.

10.5 Incompatible materials

Water, metals from group I and II of the periodic table, acids and bases (the substance dissolves).

10.6 Hazardous decomposition products

Not known.

Section 11: Toxicological information

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

Acute toxicity

LD₅₀ (oral, rat): > 2 000 mg/kg

LD₅₀ (oral, mouse): > 5 000 mg/kg

LC₅₀ (inhalation, rat): > 5,7 mg/l/4 h

LD₅₀ (skin, rabbit): > 2 000 mg/kg

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

Routes of exposure: eye contact, skin contact, inhalation, ingestion. For more information on the impact of each possible route of exposure, see subsection 4.2.

Symptoms related to the physical, chemical and toxicological characteristics

No data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

No data.

11.2 Information on other hazards

Endocrine disrupting properties

The substance is not included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or in the list of substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605.

Other information

Not known.

Section 12: Ecological information

12.1 Toxicity

Toxicity to daphnia	EC ₅₀	> 1 000 mg/l/48 h (<i>Daphnia magna</i>)
Toxicity to algae	EC ₅₀	0,17 mg/l/72 h (<i>Desmodesmus subspicatus</i>)
Toxicity to fish	LC ₅₀	1,1 mg/l/96 h (<i>Oncorhynchus mykiss</i>)
M factor = 1		

Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Not determined for inorganic substances.

12.3 Bioaccumulative potential

The substance does not show a bioaccumulative potential.

12.4 Mobility in soil

The product is not mobile in soil and water.

12.5 Results of PBT and vPvB assessment

Not applicable.

12.6 Endocrine disrupting properties

The substance is not included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or in the list of substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605.

12.7 Other adverse effects

This product has no influence on the global warming or the ozone layer depletion.

Section 13: Disposal considerations

13.1 Waste treatment methods

Disposal methods for the substance: do not deposit with household waste. Do not empty into drains. Disposal in accordance with the local legislation. Waste code should be assigned in place of formation.

Disposal methods for used packing: reuse/recycling/liquidation of empty containers dispose in accordance with the local legislation.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

Section 14: Transport information

14.1 UN number or ID number

UN 3077

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. [ZINC OXIDE]

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

The product is classified as dangerous for the environment according to criteria contained in the transport rules.

14.6 Special precautions for user

If any substances have leaked from the package and scattered inside the vehicle or container, it is time to thoroughly cleaned and, if necessary, disinfected or decontaminated, the vehicle or container can not be reused. All other goods and articles carried in the same vehicle or container shall be examined for possible contamination. Use personal protective equipment specified in section 8

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

Section 15: Regulatory information

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

ADR Agreement Concerning the International Carriage of Dangerous Goods by Road.

IMDG Code International Maritime Dangerous Goods Code.

IATA The International Air Transport Association regulations.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 as amended.

Commission Regulation (EU) No 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

Commission Directive 91/322/EEC of 29 May 1991 on establishing indicative limit values by implementing Council Directive 80/1107/EEC on the protection of workers from the risks related to exposure to chemical, physical and biological agents at work as amended.

Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) as amended.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work as amended.

Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Sixth individual Directive within the meaning of Article 16(1) of Council Directive 89/391/EEC) as amended.

15.2 Chemical safety assessment

The chemical safety assessment is not carried out.

Section 16: Other information

Abbreviations and acronyms

PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity category 1

Trainings

Before commencing work with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training. People associated with the transport of hazardous materials according to ADR should be adequately trained to perform their duties (general training, bench and safety).

Key literature references and data sources

This SDS was prepared on the basis of producer's data as well as our knowledge and experience, taking into account current legislation.

Additional information

Date of update:	26.03.2024
Version:	3.0/EN
Changes:	sections 8, 9, 15, 16.
Safety Data Sheet made by:	THETA Consulting Sp. z o.o.



SAFETY DATA SHEET

Date of update: 26.03.2024

Version: 3.0/EN

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.