

SAFETY DATA SHEET

RHENOGRAN ZnO-80



Version 1.0 Revision Date: 2019/05/13 SDS Number: 103000012130 Date of last issue: -
Country / Language: HK / 6N

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : RHENOGRAN ZnO-80

Product code : 56127430

Manufacturer or supplier's details

Supplier : 朗盛香港有限公司
港島東 英皇道 979 號 太古坊
康橋大廈 35 樓 3503-3504 室, 香港

Telephone : +85235268888

E-mail address of person responsible for the SDS : lxs-sds-china@lanxess.com

Emergency telephone number : 0049-214-30-99300 (German)

Supplier : LANXESS Hong Kong Limited
Suites 3503-3504, 35/F Cambridge House
TaiKoo Place, 979 King's Road Island East, Hong Kong, Hong Kong

Telephone : +85235268888

E-mail address of person responsible for the SDS : lxs-sds-china@lanxess.com

Emergency telephone : 0049-214-30-99300 (German)

Recommended use of the chemical and restrictions on use

Recommended use : Rubber chemicals.

2. HAZARDS IDENTIFICATION

GHS Classification

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1


GHS label elements

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Hazard pictograms : 

Signal word : Warning

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

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.

Other hazards which do not result in classification
None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
zinc oxide	1314-13-2	>= 70 - < 90
Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified	64742-54-7	>= 1 - < 10
Fatty acids, C16-18	67701-03-5	>= 1 - < 10

4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

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

In case of skin contact : Take off all contaminated clothing immediately.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before re-use.

In case of eye contact : Flush eyes with water as a precaution.

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- Remove contact lenses.
Protect unharmed eye.
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.
- Most important symptoms and effects, both acute and delayed : None known.
- Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.
- Notes to physician : No special measures required.
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5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Metal oxides
Carbon dioxide (CO₂)
Carbon monoxide
- Specific extinguishing methods : 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.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid dust formation.
- 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.
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Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling : 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.

Storage

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
zinc oxide	1314-13-2	OEL-TWA (Dust)	10 mg/m ³	HK OEL
		OEL-TWA (Fumes)	5 mg/m ³	HK OEL
		OEL-STEL (Fumes)	10 mg/m ³	HK OEL
		TWA (Respirable fraction)	2 mg/m ³	ACGIH
		STEL (Respirable fraction)	10 mg/m ³	ACGIH
Distillates (petroleum), hydrotreated heavy paraffinic;	64742-54-7	OEL-TWA (Mist)	5 mg/m ³	HK OEL

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Baseoil -unspecified				
	Further information: As sampled by method that does not collect vapour			
		OEL-STEL (Mist)	10 mg/m3	HK OEL
	Further information: As sampled by method that does not collect vapour			
		TWA (Inhalable fraction)	5 mg/m3	ACGIH

Engineering measures : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection

Material : Nitrile rubber - NBR

Wearing time : < 60 min

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Tightly fitting safety goggles

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.

Hygiene measures : Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : granular

Colour : light cream

Odour : slight

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : No data available

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Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 3 g/cm³ (20 °C)

Solubility(ies)
Water solubility : insoluble

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

Ignition temperature : No data available

Decomposition temperature : No data available

Viscosity : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Molecular weight : No data available

10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
Stable under recommended storage conditions.
No hazards to be specially mentioned.
Dust may form explosive mixture in air.

Conditions to avoid : No data available

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Incompatible materials : No specific data.
Hazardous decomposition products : No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

zinc oxide:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.7 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Dosage caused no mortality

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : > 5000 ml/kg bw
Method: OECD Test Guideline 402
GLP: yes

Fatty acids, C16-18:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

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Method: OECD Test Guideline 401
GLP: no

LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 434
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Not classified based on available information.

Components:

zinc oxide:

Species: Rabbit
Assessment: No skin irritation

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified:

Result: No skin irritation

Fatty acids, C16-18:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
Remarks: Test results on an analogous product

Serious eye damage/eye irritation

Not classified based on available information.

Components:

zinc oxide:

Species: Rabbit
Assessment: No eye irritation
Method: OECD Test Guideline 405

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified:

Result: No eye irritation

Fatty acids, C16-18:

Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation
Remarks: Test results on an analogous product

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Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

zinc oxide:

Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Did not cause sensitisation on laboratory animals.

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified:

Exposure routes: Skin contact

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

Fatty acids, C16-18:

Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Did not cause sensitisation on laboratory animals.

Remarks: Test results on an analogous product

Germ cell mutagenicity

Not classified based on available information.

Components:

zinc oxide:

Genotoxicity in vitro : Test Type: gene mutation test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Fatty acids, C16-18:

Genotoxicity in vitro : Test system: Bacteria
Method: OECD Test Guideline 471
Result: negative

Test system: Mammalian-Animal
Method: OECD Test Guideline 476
Result: negative

Test system: Mammalian-Animal

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Method: OECD Test Guideline 473
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified:

Carcinogenicity - Assessment : Classified based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L)

Reproductive toxicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified:

Effects on fertility : Test Type: Fertility
Species: Rat
Application Route: Oral
Frequency of Treatment: 28 daily
Fertility: NOAEL: 1,000 mg/kg body weight
Symptoms: No effects on fertility

Test Type: Fertility
Application Route: Inhalation
Remarks: No data available

Test Type: Fertility
Species: Rat
Application Route: Skin contact
Frequency of Treatment: 28 daily
Fertility: NOAEL: 1,000 mg/kg body weight
Symptoms: No effects on fertility

Fatty acids, C16-18:

Effects on fertility : Species: Rat
Application Route: Oral
Dose: > 1000 milligram per kilogram
Symptoms: NOAEL
Method: OECD Test Guideline 422

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

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Repeated dose toxicity

Components:

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified:

Species: Rabbit
NOAEL: 200 mg/kg
Application Route: Skin contact
Exposure time: 28 d
Dose: 200 mg/kg
Remarks: Chronic toxicity

Species: Rat
NOAEL: 0.21 mg/l
Application Route: Inhalation
Exposure time: 28 d
Dose: 0,21 mg/l
Remarks: Chronic toxicity

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

zinc oxide:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia (Water flea)): 0.413 mg/l
Exposure time: 48 h
Method: US EPA 821-R-02-012

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): 0.136 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 5,000 mg/l
Exposure time: 96 h

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 1,000 mg/l
Exposure time: 96 h

Fatty acids, C16-18:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 1,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 4.8 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): 0.9 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 211

M-Factor (Acute aquatic toxicity) : 1

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.22 mg/l
Exposure time: 21 Days
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Persistence and degradability

Components:

zinc oxide:

Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil -unspecified:

Biodegradability : Result: Inherently biodegradable.

Fatty acids, C16-18:

Biodegradability : Result: Readily biodegradable.

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Bioaccumulative potential

Components:

Fatty acids, C16-18:

Partition coefficient: n-octanol/water : log Pow: > 5
Method: Regulation (EC) No. 440/2008, Annex, A.8

Mobility in soil

No data available

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.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : 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.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(ZINC OXIDE)
Class : 9
Packing group : III
Labels : 9
:



Packing instruction (cargo aircraft) : 956: 400.00 KG

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Packing instruction (passenger aircraft) : 956: 400.00 KG
Environmentally hazardous : yes



IMDG-Code

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE)
Class : 9
Packing group : III
Labels : 9



Marine pollutant : yes



Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Hazard statements : Environmentally hazardous substance.
Keep separated from foodstuffs.

15. REGULATORY INFORMATION

National regulatory information

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors : Not applicable

Hong Kong. Control of Chemicals Ordinance : Neither banned nor restricted

Hong Kong. Chemical Weapons (Convention) Ordinance (Cap. 578) (Schedule 1 Chemicals) : Neither banned nor restricted

Hong Kong. Chemical Weapons (Convention) Ordinance (Cap. 578) (Schedule 2 Chemicals) : Neither banned nor restricted

Hong Kong. Chemical Weapons (Convention) Ordinance (Cap. 578) (Schedule 3 Chemicals) : Neither banned nor restricted

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Further information : Dangerous Goods Ordinance (Cap295)
Factories and Industrial Undertaking Ordinance (Cap59),
F&IU (Dangerous Substances) Regulations
Waste Disposal Ordinance Waster Disposal (Chemical Waste)
(General) Regulations (Cap354)
Air Pollution Control Ordinance Air Pollution (Volatile Organic
Compounds) Regulation (Cap311)
Code of Practice on Control of Air Impurities (Chemical Sub-
stance) in the Workplace

Other international regulations

16. OTHER INFORMATION

Full text of other abbreviations

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
HK OEL : Code of Practice on Control of Air Impurities (Chemical Sub-
stances) in the Workplace

ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
HK OEL / OEL-TWA : Time weighted Average
HK OEL / OEL-STEEL : Short-Term Exposure Limit

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.