

Mixgran[®] ZnO

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
Manufacturer Shandong Yanggu Huatai Chemical Co., LTD No.217, Qinghexi Road Yanggu County, Shandong, China 252300	Emergency Contact Chemtrec: 1-800-424-9300 (continental USA) (1)703-527-3887 (outside continental USA)
Trade Name(s): Mixgran [®] ZnO 80 LM, Mixgran [®] ZnO 85/NR	Chemical Name: Zinc Oxide
Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.	Application of the substance/the preparation: Dispersion. Activator/ Rubber compounding.
Issued By: Sovereign Chemical Company According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS	SDS Number: 1885 Date of Issue: October 2, 2014 Revision Number: 1 (Supersedes: February 17, 2014) Change(s): Include Mixgran [®] ZnO 85/NR.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008: The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H400, H410.



GHS09 Environment

Aquatic Acute 1

Aquatic Chronic 1

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.



GHS07

Eye Irrit. 2

H319 Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



N; Dangerous for the environment,

R50/53: Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

Additional information: May form combustible dust concentrations in air.

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H400, H410.

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).



GHS07

GHS09

Signal word: Warning

Hazard statements

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H400, H410.

H319 Causes serious eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

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

P273 Avoid release to the environment.

P264 Wash thoroughly after handling.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information: May form combustible dust concentrations in air.

Hazard description

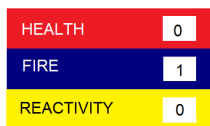
WHMIS-symbols: Not hazardous under WHMIS.

NFPA ratings (scale 0-4)



Health = 0
Fire = 1
Reactivity = 0

HMIS ratings (scale 0-4)



Health = 0
Fire = 1
Reactivity = 0

HMIS Long Term Health Hazard Substances: None of the ingredients is listed.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.





vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components

CAS: 1314-13-2 EINECS: 215-222-5 Index number: 030-013-00-7	Zinc oxide  N R50/53  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	80%
CAS: 25038-36-2	Ethylene/propylene/diene terpolymer  Xi R37  Eye Irrit. 2, H319	<20%

Additional information: For the wording of the listed risk phrases refer to section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Irritant to eyes

Thirst

Coughing

Nausea

Fever

Disorientation

Hazards: No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Contains zinc salts. Consult literature for specific antidotes.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

For safety reasons, unsuitable extinguishing agents: Water.

5.2 Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

Protective equipment

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information: No further relevant information available.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Avoid formation of dust.

6.2 Environmental precautions

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Dispose contaminated material as waste according to Section 13.

Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Use only in well ventilated areas.

Store in cool, dry place in tightly closed receptacles.

Prevent formation of dust.

Any unavoidable deposit of dust must be regularly removed.

Information about fire and explosion protection: Dust can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles

Protect from humidity and water.

Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility

Store away from foodstuffs.

Do not store together with oxidizing and acidic materials.

Further information about storage conditions: Store receptacle in a well-ventilated area.

7.3 Specific end use(s): No further relevant information available.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see Section 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace

1314-13-2 zinc oxide	
PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction and fume
REL (USA)	Short-term value: 10** mg/m ³ Long-term value: 5* 5** mg/m ³ Ceiling limit: 15* mg/m ³ *dust only **fume
TLV (USA)	Short-term value: 10* mg/m ³ Long-term value: 2* mg/m ³ *as respirable fraction
EL (Canada)	Short-term value: 10 mg/m ³ Long-term value: 2 mg/m ³
EV (Canada)	Short-term value: 10 mg/m ³ Long-term value: 2 mg/m ³ respirable

DNELs: No further relevant information available.

PNECs: No further relevant information available.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

- The usual precautionary measures are to be adhered to when handling chemicals.
- Wash hands before breaks and at the end of work.
- Keep away from foodstuffs, beverages and feed.
- Do not inhale dust/smoke/mist.
- Avoid contact with the eyes.

Respiratory protection

- Not required under normal conditions of use.
- Use suitable respiratory protective device in case of insufficient ventilation.
- Use suitable respiratory protective device when high concentrations are present.
- For spills, respiratory protection may be advisable.

Protection of hands



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable

- Butyl rubber, BR
- Neoprene gloves
- Nitrile rubber, NBR

Eye protection



Safety glasses

Body protection: Protective work clothing.

Limitation and supervision of exposure into the environment: No further relevant information available.

Risk management measures

See Section 7 for additional information.

No further relevant information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

Appearance Form: Granulate. Color: White.	Change in Condition Melting Point/Melting Range: Not determined. Boiling Point/Boiling Range: Undetermined.
Odor: Characteristic.	Octanol/Water Partition Coefficient: Not determined.
Odor threshold: Not determined.	pH value: Not applicable.
Vapor pressure: Not applicable.	Flash point: Not applicable.
Density at 20 °C: 2.70-2.80 g.cm ³ .	Flammability (solid, gaseous): Not determined.
Relative density: Not determined.	Ignition temperature: Not determined.
Vapor density: Not applicable.	Decomposition temperature: Not determined.
Evaporation rate: Not applicable.	Self-igniting: Product is not self-igniting.
Solubility in / Miscibility with water: Partly miscible.	Danger of explosion: Product does not present an explosion hazard.
Viscosity Dynamic: Not applicable. Kinematic: Not applicable.	Explosion limits Lower: Not determined. Upper: Not determined.
Solvent content: Organic solvents: Not determined.	Solids content: Not determined.

9.2 Other information: No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical stability

Thermal decomposition/conditions to be avoided

No decomposition if used and stored according to specifications.

May form combustible dust concentrations in air.

10.3 Possibility of hazardous reactions

As the product is supplied it is not capable of dust explosion; however, enrichment with fine dust causes risk of dust explosion.

Reacts with strong acids and alkali.

Reacts with inorganic acid chlorides.

Reacts with halogenated compounds.

Toxic fumes may be released if heated above the decomposition point.

10.4 Conditions to avoid: No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Toxic metal oxide smoke.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD/LC50 values relevant for classification:		
1314-13-2 zinc oxide		
Oral	LD50	>5000 mg/kg (rat)

Primary irritant effect

On the skin: Slight irritant effect on skin and mucous membranes.

On the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information

The product shows the following dangers according to the calculation method of the General EU

Classification

Guidelines for Preparations as issued in the latest version:

Irritant

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: Toxic for aquatic organisms.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bio-accumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

Ecotoxicological effects

Remark

Very toxic for fish.

Due to mechanical actions of the product (e.g. agglutinations) damages may occur.

Additional ecological information

General notes

This statement was deduced from the properties of the single components.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 Also, poisonous for fish and plankton in water bodies.
 Very toxic for aquatic organisms
 Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment cannot be excluded.



12.5 Results of PBT and vPvB assessment
 PBT: Not applicable.
 vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
 Recommendation
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
 Contact waste processors for recycling information.
 Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
 Un-cleaned packaging
 Recommendation: Disposal must be made according to official regulations.
 Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. TRANSPORTATION INFORMATION

14.1 UN-Number	
DOT	Not regulated
ADR, IMDG, IATA	UN3077
14.2 UN proper shipping name	
DOT	Not regulated
ADR	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S (zinc oxide)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc oxide), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc oxide)
14.3 Transport hazard class(es)	
DOT	Not regulated
IMDG, IATA	
	
Class	9 Miscellaneous dangerous substances and articles.
Label	9
ADR	



Class
Label



9 (M7) Miscellaneous dangerous substances and articles.
9

14.4 Packing group

DOT
ADR, IMDG, IATA

Not regulated
III

14.5 Environmental hazards

Marine pollutant

Product contains environmentally hazardous substances: zinc oxide

Yes
Symbol (fish and tree)
Symbol (fish and tree)
Symbol (fish and tree)

Special Marking (ADR)
Special Marking (IATA)

14.6 Special precautions for user

Danger code (Kemler)
EMS Number

Warning: Miscellaneous dangerous substances and articles
90
F-A, S-F.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

Transport/Additional information

ADR
Limited quantities (LQ)
Transport category
Tunnel restriction code
UN "Model Regulation"

5 kg
3
E
UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (zinc oxide), 9, III

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
United States (USA)

SARA Section 355 (extremely hazardous substances)	None of the ingredients is listed.
SARA Section 313 (Specific toxic chemical listings)	1314-13-2 zinc oxide
TSCA (Toxic Substances Control Act)	All ingredients are listed.
Proposition 65 (California)	
Chemicals known to cause cancer	None of the ingredients is listed
Chemicals known to cause reproductive toxicity for females	None of the ingredients is listed
Chemicals known to cause reproductive toxicity for males	None of the ingredients is listed
Chemicals known to cause developmental toxicity	None of the ingredients is listed
Carcinogenic Categories	

EPA (Environmental Protection Agency)	1314-13-2 zinc oxide D, I, II
IARC (International Agency for Research on Cancer)	None of the ingredients is listed
TLV (Threshold Limit Value established by ACGIH)	None of the ingredients is listed
NIOSH-Ca (National Institute for Occupational Safety and Health)	None of the ingredients is listed
OSHA-Ca (Occupational Safety & Health Administration)	None of the ingredients is listed
Canada	
Canadian Domestic Substances List (DSL)	All ingredients are listed.
Canadian Ingredient Disclosure list (limit 0.1%)	None of the ingredients is listed
Canadian Ingredient Disclosure list (limit 1%)	1314-13-2 zinc oxide

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- R36 Irritating to eyes.
- R50/53 Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment – Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment – Chronic Hazard, Category 1