



MATERIAL SAFETY DATA SHEET

Issue 05/20/2005

Trade Name: **Nano Zinc Oxide Powder**

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Trade name: Nano Zinc Oxide Powder

One kind of newly typed antibacterial additive, adopted nanometer technology to manufacture, which can be widely added into PP, PE, HIPS and ABS etc macromolecule polymer, ceramic tiles, pigment, non-woven cloth and paper etc material to make into various corresponding antibacterial products.

Manufacturer/exporter/distributor:

Shenzhen Become Industry & Trade Co., Ltd.

East 6F International Famous Auto City

No.269 Baogang Road, Luohu District

Shenzhen-518023, China

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2. COMPOSITION/INFORMATION ON INGREDIENTS:

Item	Chemical Name	CAS Number	Content %
01	Zinc Oxide	1314-13-2	≥ 95.00%
02	Manganese Oxide	1317-35-7	≤0.003%
03	Copper Oxide (calculated as Cu)	7440-50-8	≤0.001%

EXPOSURE LIMITS

ITEM	ACGIH		OSHA		COMPANY
	TLV-TWA	TLV-STEL	PEL-TWA	PEL-CELLING	TLV-TWA
01	5mg/m ³	N.E.	15mg/m ³	N.E.	N.E.
02	0.2 mg/m ³	N.E.	N.E.	N.E.	N.E.
03	0.1 mg/m ³	N.E.	0.2 mg/m ³	N.E.	N.E.

Contains no substances that are detrimental to health according to EU guidelines 67/548/EWG

3. HAZARDS IDENTIFICATION

Non-hazardous according to EU Guidelines 88/379/EWG

4. FIRST AID MEASURES

SHENZHEN BECOME INDUSTRY & TRADE CO., LTD.

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General information:

Inhale: Move to place with fresh air and seek immediately medical attention.

Eye contact: Rinse opened eye for several minutes under running water or with eyewash. Remove any contact lenses. If irritation persists seek immediate medical attention.

Ingestion: Inedible. Rinse out mouth immediately, drink plenty of water and seek medical advice immediately.

5. FIRE-FIGHTING MEASURES

Substances for fire fighting: Spray water, chemical dry powder, CO₂, alcohol froth

Accidental hazard: No

Special fire fighting procedure: No

Special protection equipments for fire fighting: No

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: See section 8

Environmental precautions: See section 12

Methods for cleaning up: Rid up or normal clean up.

7. HANDLING AND STORAGE

Handling: Don't eat.

Storage: Pay attention to place in dry place and moistureproof.

Store according to local and/or national regulation.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering control: general ventilation

Control methods: N. A.

Personal protection:

Respiration protection: When working, wear respirator.

Hand protection: Wear anti penetrating gloves (caoutchouc, black rubber, neoprene, butyl rubber and PVC)

Eye protection: Wear protective goggles.

Skin and body protection: No

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Super fine powder

Color: White or yellowish

Odor: No



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Boiling point: N. A.

Melting point: -

Flash point: N. A.

Flammability: N. A.

Auto flammability: N. A.

Explosive properties: -

Oxidizing properties: -

Muriatic acid insoluble substance: $\leq 0.05\%$

Burning weight loss: $\leq 4\%$

Hydrotrope: $\leq 0.7\%$

Volatile at 105°C: $\leq 0.7\%$

Stack density: $\leq 0.40\text{g/ml}$

Specific surface area (BET): $\geq 35\text{m}^2/\text{g}$

Other data:

Average granule size tested by electric lens: $\leq 80\text{nm}$

Average crystal granule size tested by XRD line width method: $\leq 80\text{nm}$

Reunite index: $\leq 100\%$

10. STABILITY AND REACTIVITY

Invariability: Stability

Hazardous reactivity under special condition: No

Conditions to avoid: No

Materials to avoid: Na

Hazardous decomposition products: NO_x

11. TOXICOLOGICAL INFORMATION

OECD Test after 4 hours the product does not cause irritation to skin and is not detrimental to one's health.

12. ECOLOGICAL INFORMATION

No negative effects are known.



13. DISPOSAL CONSIDERATIONS

Appropriate methods of disposal: No hazardous

Product:

Avoid Na and Nox.

Packaging: Dispose in accordance with current local/national regulations.

14. TRANSPORT INFORMATION

No hazardous

15. REGULATORY INFORMATION

Provisions from the EC: The product has been classified non hazardous.

Particular labeling requirements for certain preparations: None.

National regulations: None

16. OTHER INFORMATION

N.A.: not applicable

N.E.: not established

Training advice: No requirements for special training.

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