

Safety Data Sheet

1. PRODUCT AND COMPANY INFORMATION

Product name : WSO oxygen antibacterial powder B
Company : 3S KOREA Co., Ltd
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Recommended use of the chemical and restrictions on use

Recommended use : Water treatment, Raw materials for fertilizer

Restrictions on use : Foodstuffs

2. HAZARDS IDENTIFICATION

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Physical hazard : Not applicable

Health hazards : Skin / Eye Irritation - Category 2

Specific Target Organ Toxicity (single exposure) - Category 3

Specific Target Organ Toxicity (repeated exposure) - Category 2

- Target Organ : respiratory system

Environment hazard : Not applicable

Label elements including precautionary statements

Symbols

Signal word : Warning



Hazard statements H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H373 May cause damage to organs through prolonged or repeated exposure

Precautionary statements

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

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P264 Wash thoroughly after handling.

Responses P302+P352 IF ON SKIN: wash with plenty of soap and water.

P332+P313 IF SKIN irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

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.

P304+P340 IF INHALED : Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P312 IF exposed: call a POISON CENTER or doctor/physician.

Storage P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal P501 Dispose of contents/ container to an approved waste disposal plant.

NFPA Rating

Health : 2

Flammability : 0

Reactivity : 0

Water reactivity : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No.	EINECS No.	Conc. %
Oyster shell	471-34-1	207-439-9	100 %

4. FIRST AID MEASURES

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

In case of skin contact

Wash off with soap and plenty of water.

If inhaled

If breathed in, move person into fresh air.

If not breathing, give artificial respiration.

Consult a physician.

If swallowed

Never give anything by mouth to an unconscious person.

Rinse mouth with water.

Other medical attention.

Medical personnel should be aware of the protective measures of the substance.

Potential health effect

May be harmful if swallowed.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point : No flash occurred under 93 °C (Rapid equilibrium method)

Autoignition temperature : No spontaneous combustion under 200 °C

Burning rate : No combustion sustained at 20 °C (UN TDG test & criteria - Test N1)

Suitable extinguishing media

Dry chemical, carbon dioxide

Specific hazards arising from the chemical

No data available

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Ensure adequate ventilation.

Avoid breathing dust.

Avoid contact with skin and eyes.

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

Environmental precautions

Collect spillage.

Methods and materials for containment and cleaning up

Pick up and arrange disposed materials without creating dust.

Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

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

Provide appropriate exhaust ventilation at places where dust is formed.

Avoid breathing dust.

Avoid contact with skin and eyes.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Conditions for safe storage

Store in a well-ventilated place.

Keep container tightly closed.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Components with workplace control parameter

KOSHA :	Chemical Name	TWA	STEL
	Oyster shell	10 mg/m ³	-
US OSHA :	Chemical Name	TWA	STEL
	Oyster shell	10 mg/m ³	-

Appropriate engineering controls : Ventilation, Emergency shower

Personal protective equipment

Respiratory protection : Approved respirator equipped with cartridge for dust

Hand protection : Chemical resistant gloves

Eye protection : Protective goggles

Skin and body protection : Working clothes

9. PHYSICAL AND CHEMICAL PROPERTIES

State : Solid at 20 °C

Flash point : No flash occurred under 93 °C. (Rapid equilibrium method)

Autoignition temperature : No spontaneous combustion under 200 °C

Water solubility : Insoluble at 20 °C

Density (Apparent) : 1.0 at 20 °C

Flammability

Burning Rate : No combustion sustained at 20 °C ※ UN TDG test & criteria - Test N1

Explosive properties : No self-reaction hazard ※ UN TDG test & criteria - Test E3

Oxidizing properties : No oxidizing hazard ※ UN TDG test & criteria - Test O1

Melting Range : > 120 °C

pH : 5.0 ~ 6.0 at 20 °C ※ Sample : H₂O = 1 : 5 (V/V)

Boiling Point : No data available

Vapour Pressure : No data available

Decomposition temperature : No data available

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

Viscosity : No data available

Lower explosion limit / Upper explosion limit : No data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Avoid breathing dust.

Materials to avoid

Strong Acids, Strong Bases

Hazardous decomposition products

Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral	rat	LD50 : > 2,000 mg/kg	※ from US NLM / ECHA
Skin	rabbit	LD50 : No data available	
Inhalation	rat	LC50 : No data available	

Skin irritation : Irritating (Oyster shell) ※ from US NLM / ECHA

Eye irritation : Irritating (Oyster shell) ※ from US NLM / ECHA

Respiratory sensitization : No data available

Skin sensitization : No data available

Germ cell mutagenicity : No data available

Carcinogenicity : Not classifiable ※ from CCRIS / IARC

Reproductive toxicity : No data available

Specific target organ toxicity – single exposure (GHS)

May cause respiratory irritation (Oyster shell) ※ from US NLM / ECHA

Specific target organ toxicity – repeated exposure

Causes damage to organs through prolonged or repeated exposure (Oyster shell)

– Target organ : respiratory system

Aspiration hazard : No data available

12. ECOLOGICAL INFORMATION

Toxicity ※ from US NLM / ECHA

Fish LC50 : No data available

Crustacean EC50 : No data available

Algae EC50 : No data available

Persistence and degradability : No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Other adverse effects : No data available

13. DISPOSAL CONSIDERATIONS

Disposal consideration

Observe all environmental regulations.

Disposal precaution

Keep in suitable, closed containers for disposal.

14. TRANSPORT INFORMATION

UN TDG : Not dangerous goods

IATA : Not dangerous goods

IMDG : Not dangerous goods

Marine pollution : Not applicable

Special precaution

Fire EmS Guide : F-A (Recommendation)

Spillage EmS Guide : Not dangerous goods

15. REGULATORY INFORMATION

Korea Industrial Safety and Health Act (GHS)

Skin / Eye Irritation – Category 2

Specific Target Organ Toxicity (single exposure) – Category 3

Specific Target Organ Toxicity (repeated exposure) – Category 2

Korea Hazardous Materials Safety Control Act : Not hazardous material

Korea Chemicals Control Act : Not toxic chemical

Korea Persistent Organic Pollutants Control Act : Not applicable

US OSHA Hazards (GHS) : Skin / Eye Irritation, Specific Target Organ Toxicity

16. OTHER INFORMATION

Issued Date : 2017. 02. 01.

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Revision Date : -

References

- GHS Classification :
Korea MSDS Testing Lab Certificate (Report No. 2017-03-002614), US NLM
- Physical and chemical properties : Korea MSDS Testing Lab Certificate
- Transport information : Korea MSDS Testing Lab Certificate
- Toxic & ecological information : OECD SIDS, ECHA, US NLM, HSDB, IARC, CCRIS, JP NITE

Acronyms and Websites

- ECHA : European chemical agency, <http://echa.europa.eu/>
- US NLM : U.S. National Library of Medicine, <http://chem.sis.nlm.nih.gov/chemidplus/>
- HSDB : US Hazardous Substances Data Bank, <http://toxnet.nlm.nih.gov/>
- CCRIS : US Chemical Carcinogenesis Research Information System, <http://toxnet.nlm.nih.gov/>
- IARC : International Agency for Research on Cancer, <http://monographs.iarc.fr/>
- JP NITE : Japan National Institute of Technology and Evaluation, <http://www.safe.nite.go.jp/>

※ Hazards Testing and Classification

Korea MSDS Testing Laboratory

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The product composition is provided by the mentioned company of this SDS' section 1.
This SDS is composed in line with Korea Occupational Safety and Health Act Article 41,
to protect the health of the employees, and for documentation.
This SDS is composed with reference to documents and criteria provided by KOSHA.

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