

# Yangzhou Sunchem Co.,Ltd.

## Material Safety Data Sheet

### 2-Octyl-4-Isothiazolin-3-Ketone (OIT)

#### 1 Identification of the substance/mixture and of the company/undertaking

- Product identifier
- Trade name: ACTICIDE OTW
- Application of the substance / the preparation Biocide for industrial and/or commercial use.
- Details of the supplier of the safety data sheet
- Supplier:  
9/F Dexing Building, 545 Museum Road, Yangzhou, China.  
Tel: 86-514-8785-1548  
Fax: 86-514-8787-2867  
Email:market@shsunchem.com  
Http: www.shsunchem.com

#### 2 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Preservative based on 2-Octyl-2H-isothiazol-3-one.
- Dangerous components:

26530-20-1	2-Octyl-2H-isothiazol-3-one H311; H331; H314; H400; H410; H302; H317	15 - 17%
24938-91-8	Polyoxyethylene tridecyl ether H318; H302	< 2.5%

#### 3 Hazards identification

- Classification of the substance or mixture  
GHS05 Corrosion  
H314 Causes severe skin burns and eye damage.  
GHS09 Environment  
H400 Very toxic to aquatic life.  
GHS07  
H312 Harmful in contact with skin.  
H317 May cause an allergic skin reaction.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC  
Corrosive  
Causes burns.  
Harmful  
Harmful by inhalation and in contact with skin.  
Irritant  
May cause sensitization by skin contact.

Dangerous for the environment

Very toxic to aquatic organisms.

· Classification system:

The classification of health and environmental hazards is based either on test results or on the

conventional calculation method according to Articles 6 & 7 of Directive 1999/45/EC (DPD).

· Label elements

· GHS label elements

The product is classified and labelled according to the Globally Harmonized System (GHS).

· Hazard pictograms

GHS05 GHS07 GHS09

· Signal word Danger

· Hazard-determining components of labelling:

2-Octyl-2H-isothiazol-3-one

· Hazard statements

Harmful in contact with skin.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Very toxic to aquatic life.

· Precautionary statements

Avoid release to the environment.

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

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

If skin irritation or rash occurs: Get medical advice/attention.

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

· Classification system:

· NFPA ratings (scale 0 - 4)

Health = 3

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 3

Fire = 0

Reactivity = 0

#### 4 First aid measures

· General information:

In case of emergency call toll free (800) 424-9300. Have the product container or label

with you

when you call a Poison Control Center or doctor or going for treatment.

- If inhaled:

Move person to fresh air.

If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably

mouth-to-mouth if possible.

Call a Poison Control Center or doctor for treatment advice.

Supply fresh air; consult doctor in case of symptoms.

- If on skin or clothing:

Take off contaminated clothing.

Destroy or thoroughly clean contaminated shoes.

Rinse skin immediately with plenty of water and soap.

Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

Call a Poison Control Center or a doctor for treatment advice.

- If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact

lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a Poison Control Center

or doctor for treatment advice.

- If swallowed:

Call a Poison Control Center or doctor immediately for treatment advice.

Have person sip a glass of water if able to swallow.

Do not induce vomiting unless told to do so by the Poison Control Center or doctor.

A person vomiting while lying on their back should be turned onto their side.

- Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

## 5 Firefighting measures

- Suitable extinguishing agents: Water spray jet, extinguishing powder, CO<sub>2</sub>, foam.

- For safety reasons unsuitable extinguishing agents: None

- Special hazards arising from the substance or mixture

In case of fire, toxic incineration products may be released such as:

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide (CO)

Sulphur dioxide (SO<sub>2</sub>)

- Protective equipment: Wear protective clothing and self-contained respiratory protective device.

- Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

## 6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Keep unprotected persons away.

When selecting the protective suit it has to be paid attention to a complete and safe protection of

skin and mucous membrane. Impermeable protective clothes, protective boots made of neoprene,

complete face protection, nitrile-rubber-gloves with long tops.

- Environmental precautions:

Prevent from spreading (e. g. by enclosing with a ring of chemical absorbent).

As the product is hazardous for the aquatic environment, it must be prevented from reaching

surface water.

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

- Methods and material for containment and cleaning up:

Collect large amounts in suitable container. Cover the rest with absorbent, mix intensively and

collect mechanically.

Suitable binder: multi-purpose absorbent.

Pick up mechanically.

Dispose of contaminated binding material in accordance with local, state and federal regulations.

Surfaces can be decontaminated with a solution containing 5% sodium hydrogensulfite and 5%

sodium bicarbonate.

- Reference to other sections

None

None

## 7 Handling and storage

- Handling:

- Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Handle product in closed systems preferably.

Load carefully, avoid splashes.

Compliance with the minimum requirements designed to guarantee a better standard of safety and

health at work is essential to ensure the safety and health of workers.

- Information about protection against explosions and fires: No special measures required.

- Storage:

- Requirements to be met by storerooms and receptacles:

Information about suitable materials for vessels and piping can be requested from our technical

department (Tel.: 203-365-6530).

Store only in the original receptacle.

- Information about storage in one common storage facility: Store away from

foodstuffs.

- Further information about storage conditions:

Keep receptacle tightly sealed.

Prevent release to the environment by adequate secondary containment design and use of

appropriate spill control procedures.

- Minimum storage temperature: 10°C, 50 F

- Sensitivity against frost: Protect from frost.

## 8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Components with limit values that require monitoring at the workplace: Not required.

- Additional information: The lists that were valid during the creation were used as basis.

- Personal protective equipment:

- General protective and hygienic measures:

Avoid contact with the eyes and skin.

Wash hands thoroughly before breaks and at the end of work.

Provide skin protection plan.

- Breathing equipment:

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA

approved respiratory protection.

OV/N95 or OV/P100; organic vapors/prefilter (NIOSH Approval No. TC-84A-0699).

- Protection of hands:

Chemical protective gloves according to DIN EN 374 with CE-labelling.

Before use check protective gloves for any damages like holes, cuts or tears.

Do not wear protective gloves longer than necessary.

- Material of gloves Nitrile rubber, NBR

- Penetration time of glove material

Penetration time depends on different criteria and may be determined by the manufacturer

according to the standard DIN EN 374-3.

- Not suitable are gloves made of the following materials:

Gloves for mechanical protection do not provide protection against chemicals.

- Eye protection:

Face protection

- Body protection:

Protective work clothing

Apron

Full head, face and neck protection

## 9 Physical and chemical properties

- General Information

· Appearance:

Form: Viscous

Color: White To Yellowish

· Odor: Mild

· pH-value: 4-7

· Change in condition

Melting point/Melting range: Not determined

Boiling point/Boiling range: ca. 100°C (ca. 212 °F)

· Flash point: Not applicable

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Density at 20° C (68 ° F): 1.01 ± 0.02 g/cm<sup>3</sup>

· Solubility in / Miscibility with

Water: Emulsifiable.

· Other information

Organic Volatiles (EPA Method 24A): 0 (calculated)

## 10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

Before handling, the product should not be diluted or mixed with other chemicals, in order to avoid

any negative influences on the active ingredient(s).

· Minimum shelf life: 12 months from production date, if stored at a temperature of about 20°C

· Hazardous decomposition products: None expected during normal storage, handling and use.

## 11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

Oral	ATE mix	2780 mg/kg (rat)
Dermal	ATE mix	> 5000 mg/kg (rat)

· Primary irritant effect:

· Target Organism – skin: Caustic effect on skin and mucous membranes.

· Target Organism – eye: Strong caustic effect.

· Sensitization: Sensitization possible through skin contact.

· Subacute to chronic toxicity:

EPA 83-3 (rat) non teratogenic

## 12 Ecological information

· Aquatic toxicity:

EC50 / 48 h 2.6 mg/l (Daphnia)

EC50 / 72 h 0.5 mg/l (Scenedesmus subspicatus)

LC50 / 96 h 0.2 mg/l (rainbow trout)

- Persistence and degradability
- Method: OECD 303 A (Coupled Units-Test)
- Analyzing method: DOC-Elimination
- Degree of elimination:

The substance OIT is classified as biodegradable according to OECD 303 A (Simulation test -

Aerobic Sewage Treatment).

- Biodegradability: Degree of biological degradability: > 80%.
- Behavior in environmental systems:
- Components:

The active substance OIT proved to be biodegradable in the simulation test "Aerobic Mineralisation

in Surface Water - Simulation Biodegradation Test" according to OECD guideline 309 at test

concentrations of 0.01 mg/l and 0.1 mg/l. OIT is rapidly degraded in natural river water, and the

DT50 (degradation half time = time needed to reach a value of 50% biodegradation, i.e. 50% of the

substance are degraded) ranges between 1 and 3 days. DT90 (degradation of 90% of the substance) is reached after 3 to 5 days.

- Bioaccumulative potential

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

log Kow 2.9; OIT

- Ecotoxicological effects:
- Behavior in sewage processing plants:

26530-20-1 2-Octyl-2H-isothiazol-3-one

EC20 / 3 h :7.3 mg/l (Activated Sludge)

OECD 209

- Remark: Depending on concentration, toxic effects on activated sludge organisms are possible.

- Additional ecological information:

- AOX-indication:

The product does not contain substances, which can influence the AOX of waste water.

- According to the formulation contains the following heavy metals and compounds from the

EU guideline NO. 2006/11 EC:

None

- General notes:

The product contains materials that are harmful to the environment.

Avoid transfer into the environment.

### 13 Disposal considerations

- Waste treatment methods

- Recommendation:

Contact the local regional office of the EPA for pesticide disposal information.

Biocide or Pesticide wastes are acutely hazardous. Improper disposal or excess product or rinsate

is a violation of Federal law. If these wastes cannot be disposed of by use according to label

instructions, contact your State Biocide/Pesticide or Environmental Control Agency, or the Hazardous Waste representative at your nearest EPA Regulation Office for guidance.

- Uncleaned packagings:

- Recommendation: In accordance with label and federal and local regulations.

## 14 Transport information

- US DOT Ground Transport Hazard Class: 8

- Identification number: UN3265

- Packing group: III

- Proper shipping name (technical name): CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-Octyl-2H-isothiazol-3-one)

- Label 8

- Land transport ADR/RID (cross-border):

- ADR/RID class: 8 (C3) Corrosive substances

- Danger code (Kemler): 80

- UN-Number: 3265

- Packaging group: III

- Special marking: Symbol (fish and tree)

- UN proper shipping name: 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-Octyl-2H-isothiazol-3-one), ENVIRONMENTALLY HAZARDOUS

- Maritime transport IMDG:

- IMDG Class: 8

- UN Number: 3265

- Label 8

- Packaging group: III

- EMS Number: F-A,S-B

- Marine pollutant: Yes

Symbol (fish and tree)

- Segregation groups Acids

- Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-Octyl-2H-isothiazol-3-one)

- Air transport ICAO-TI and IATA-DGR:

- ICAO/IATA Class: 8

- UN/ID Number: 3265

- Label 8

- Packaging group: III

- Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-



Octyl-2H-isothiazol-3-one)

· Remarks: Packing Instructions / max. net weight: Passenger aircraft: 852 / 5 L; Cargo aircraft: 856 / 60 L

· UN "Model Regulation":

UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

(2-Octyl-2H-isothiazol-3-one),

ENVIRONMENTALLY HAZARDOUS, 8, III

## 15 Regulatory information

· EPA-Registration number: 67071-31

· Canada Pest Control Act Registration Number: N/A

· SARA

· Section 302 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed at a concentration above the "de minimus" level.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· California Proposition 65 None of the ingredients is listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed.

· Canadian Non Domestic Substance List (NDSL):

None of the ingredients is listed.

· WHMIS: Class: E

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA (Occupational Safety & Health Administration)

None of the ingredients is listed.

· GHS label elements

The product is classified and labelled according to the Globally Harmonized System (GHS).

Hazard pictograms

GHS05 GHS07 GHS09

· Signal word Danger

· Hazard-determining components of labelling:

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- Hazard statements

Harmful in contact with skin.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Very toxic to aquatic life.

- Precautionary statements

Avoid release to the environment.

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

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with

water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

If skin irritation or rash occurs: Get medical advice/attention.

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

## 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.

- Training hints

US: Use only in accordance with EPA-approved label.

Further information under the regulations of use can be taken from the Product Data Sheet and label.

- Contact for technical information: Biocides: [info@ThorSp.com](mailto:info@ThorSp.com)

- Abbreviations and acronyms:

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· \* Data compared to the previous version altered.