

Safety Data Sheet
acc. to OSHA HCS

Printing date 11/14/2013

Reviewed on 11/14/2013

1: Identification**1.1 Product identifier**Trade name: **ACTICIDE OTW 45****1.2 Relevant identified uses of the substance or mixture and uses advised against**

Application of the substance / the preparation Biocide for industrial and/or commercial use

1.3 Details of the supplier of the safety data sheet**Supplier:**Thor Specialties, Inc.
50 Waterview Drive
Shelton, CT 06484
USA

Phone: +1 203-516-6980

Fax: +1 203-954-0005

Competent person responsible for the Material Safety Data Sheet :

Regulatory Affairs Department: Lynn P. Tordo, E-Mail: ltordo@thorsp.com

1.4 Emergency telephone number:

Emergency phone number (worldwide 24 hrs service): +49 6 21 60-4 33 33

USA: In case of emergency call CHEMTREC 24 Hours at 800/424-9300 or international: +1-703-527-3887

2: Hazard(s) identification**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS09 Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction. (OSHA Subcategory 1A)

Classification system

The classification does not consider the inhalation toxic properties of the relevant ingredients, since they have been determined by a study of Aerosol or dust. On a normal handling and use - due to the low vapour pressure of the ingredients - the formulation is not harmful by inhalation. The labelling comprises all potential hazard, which might occur on a normal handling and use of hazardous substances and preparations, if they are existing in a form, in which they can be traded (CLP, chapter 1).

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- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is labeled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS06 GHS09

- **Signal word** Danger
- **Hazard-determining components of labeling:**
2-Octyl-2H-isothiazol-3-one
- **Hazard statements**
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
- **Precautionary statements**
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P262 Do not get in eyes, on skin, or on clothing.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**


 Health = 3
 Fire = 1
 Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**


 Health = 3
 Fire = 1
 Reactivity = 0

These are recommended ratings. It is the responsibility of the employer to evaluate products and train employees on the hazards of those products prior to use.

- **2.3 Other hazards** Other hazards have not been identified for this product.

3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Preservative based on 2-Octyl-2H-isothiazol-3-one.

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








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· Dangerous components:		
CAS: 26530-20-1	2-Octyl-2H-isothiazol-3-one  T R23/24;  C R34;  Xn R22;  Xi R43;  N R50/53  Acute Tox. 3, H311;  Acute Tox. 3, H331;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400;  Aquatic Chronic 1, H410;  Acute Tox. 4, H302;  Skin Sens. 1A, H317	45-48
CAS: 64-17-5 RTECS: KQ 6300000 Reg.nr.: 01-2119457610-43	ethanol  F R11  Flam. Liq. 2, H225;  Eye Irrit. 2, H319	< 2.5%

4: First-aid measures

· 4.1 Description of 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:

If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

Supply fresh air; consult doctor in case of symptoms.

· If on skin or clothing:

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

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

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

· If in eyes:

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

Call a doctor immediately.

· If swallowed:

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

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

Do not give anything by mouth to an unconscious person.

· 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are described in Section 2 and 11.

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

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5: Fire-fighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents: Water spray jet, extinguishing powder, CO₂, foam.

· For safety reasons unsuitable extinguishing agents: None

· 5.2 Special hazards arising from the substance or mixture

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

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Nitrogen oxides (NO_x)

Carbon monoxide (CO)

Sulphur dioxide (SO₂)· **5.3 Advice for firefighters**· **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· **6.1 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.

· **6.2 Environmental precautions:**

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

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

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

· **6.3 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.

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.

· **6.4 Reference to other sections** None**7: Handling and storage**· **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Handle product in closed systems preferably.

Prevent contamination of inhaled air by not heating the product or causing aerosols to be formed.

Load carefully, avoid splashes.

Risks to the safety and health of workers may not only be created by work involving chemicals but, inter alia by work equipment and the fitting-out of work-places. Those risks shall be identified and evaluated.

· **Information about protection against explosions and fires:** No special measures required.· **7.2 Conditions for safe storage, including any incompatibilities**· **Storage:**· **Requirements to be met by storerooms and receptacles:** 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 freeze.

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

8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

64-17-5 ethanol

PEL	1900 mg/m ³ , 1000 ppm
REL	1900 mg/m ³ , 1000 ppm
TLV	1880 mg/m ³ , 1000 ppm

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

· 8.2 Exposure controls

· 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). (DIN/EN 141)

· 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

Thickness: 0.4 mm; break-through time: 480 min; material: Nitrile; permeation: level 6

· Not suitable are gloves made of the following materials: Leather gloves

· Eye protection:



Face protection

· Body protection:



Protective work clothing



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Full head, face and neck protection

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9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - Form: Liquid
 - Viscous
 - Color: White
 - to Yellowish
- **Odor:** Mild
- **Odour threshold:** Not relevant for safety
- **pH-value at 20 °C (68 °F):** 4.0-7.0
- **Change in condition**
 - Melting point/Melting range: Not determined
 - Boiling point/Boiling range: ca. 100 °C (ca. 212 °F)
- **Flash point:** > 100 °C (> 212 °F)
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density at 20 °C (68 °F):** ca. 1 g/cm³
- **Solubility in / Miscibility with Water:** Dispersible.
- **9.2 Other information** No further relevant information available.

10: Stability and reactivity

- **10.1 Reactivity**

Up to now, no dangers resulting from a reactivity of the mixture have been identified.
- **10.2 Chemical stability**
 - **Thermal decomposition / conditions to be avoided:** Protect from temperatures < 10 °C (< 50°F).
 - **Minimum shelf life:** 12 months from production date, if stored at a temperature of about 20 °C
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**

None expected during normal storage, handling and use.

11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
 - **LD/LC50 values that are relevant for classification:**

Oral	LD50	279 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)

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- **Primary irritant effect:**
- **Target Organism - skin:**
Caustic effect on skin and mucous membranes.

26530-20-1 2-Octyl-2H-isothiazol-3-one		
Dermal	OECD 404 (skin)	corrosive (rabbit) (OECD 404) S 82

- **Target Organism - eye:** Strong caustic effect.
- **Sensitization:**
Sensitization possible through skin contact (OSHA Subcategory 1A)

26530-20-1 2-Octyl-2H-isothiazol-3-one		
Sensitization	OECD 429 (LLNA)	sensitising (mouse) S 526

- **Additional toxicological information:**

- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)	
None of the ingredients is listed.	

· NTP (National Toxicology Program)	
None of the ingredients is listed.	

· CMR effects from tests (carcinogenicity, mutagenicity and toxicity for reproduction):		
26530-20-1 2-Octyl-2H-isothiazol-3-one		
Oral	OECD 414 (Prenatal Developmental Toxicity)	negative (rabbit) (OECD 414) S 789
	OECD 471 (in vitro - mutation, Ames-Test)	negative (Salmonella typhimurium) (OECD 471) S 67
	OECD 473 (in vitro - mutation)	negative (Chinese Hamster, ovule) (OECD 473) S 439
	OECD 476 (in vitro - mutation)	negative (Chinese Hamster, ovule) (OECD 476) S 56

12: Ecological information

- **12.1 Toxicity**

· Aquatic toxicity:	
26530-20-1 2-Octyl-2H-isothiazol-3-one	
EC50 / 48 h	0.42 mg/l (Daphnia) (OECD 202) S 95
EC50 / 72 h	0.084 mg/l (Scenedesmus subspicatus) (OECD 201) S 63
LC50 / 96 h	0.036 mg/l (rainbow trout) (OECD 203) S 93

- **12.2 Persistence and degradability**
- **Degree of elimination:** The product ingredients can be readily eliminated in the sewage system.
- **Other information:** The active ingredient(s) is (are) biodegradable up to the MIC for bacteria.

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- **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.

- **12.3 Bioaccumulative potential**

Low potential to bioaccumulate (log Kow < 3).

log Kow 2.9; OIT

- **12.4 Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Behavior in sewage processing plants:**

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

EC20 / 0.5 h	10.4 mg/l (Activated Sludge) (TTC-Test (8901 Macherey-Nagel))
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.

- **General notes:**

The product contains materials that are harmful to the environment.

Avoid transfer into the environment.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** This mixture does not contain substances that meet the PBT-criteria of REACH, annex XIII.

- **vPvB:** This mixture does not contain substances that meet the vPvB-criteria of REACH, annex XIII.

- **12.6 Other adverse effects** Any other adverse effects on the environment are not expected.

13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation:**

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

- **14.1 UN-Number**

- **DOT, ADR, IMDG, IATA**

UN2922

- **14.2 UN proper shipping name**

- **DOT**

Corrosive liquids, toxic, n.o.s. (2-Octyl-2H-isothiazol-3-one)

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· ADR 2922 Corrosive liquids, toxic, n.o.s. (2-Octyl-2H-isothiazol-3-one), ENVIRONMENTALLY HAZARDOUS

· IMDG CORROSIVE LIQUID, TOXIC, N.O.S. (2-Octyl-2H-isothiazol-3-one), MARINE POLLUTANT

· IATA CORROSIVE LIQUID, TOXIC, N.O.S. (2-Octyl-2H-isothiazol-3-one)

· 14.3 Transport hazard class(es)

· DOT



· Class 8 Corrosive substances.

· Label 8 + 6.1

· ADR



· Class 8 (CT1) Corrosive substances

· Label 8+6.1

· IMDG



· Class 8 Corrosive substances.

· Label 8 + 6.1

· IATA



· Class 8 Corrosive substances.

· Label 8 + 6.1

· 14.4 Packing group

· DOT, ADR, IMDG, IATA II

· 14.5 Environmental hazards:

· Marine pollutant: Yes
Symbol (fish and tree)

· Special marking (ADR): Symbol (fish and tree)

· 14.6 Special precautions for user Warning: Corrosive substances

· Danger code (Kemler): 86

· EMS Number: F-A,S-B

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

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· **Transport/Additional information:**

· DOT

· **Remarks:**

Special marking with the symbol (fish and tree).

· IATA

· **Remarks:**

Packing Instructions / max. net weight: Passenger aircraft: 851 / 1 L; Cargo aircraft: 855 / 30 L

· **UN "Model Regulation":**

UN2922, Corrosive liquids, toxic, n.o.s. (2-Octyl-2H-isothiazol-3-one), ENVIRONMENTALLY HAZARDOUS, 8 (6.1), II

15: Regulatory information:

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

· EPA-Registration number: 67071-84

· 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.

· **Carcinogenic categories:**

· **ACGIH:**

64-17-5 ethanol

A3

· **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.

· **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.

· **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

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• Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
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)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
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.

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