

Safety Data Sheet
acc. to OSHA HCS

Printing date 10/29/2018

Reviewed on 10/29/2018

1 Identification

- **Product identifier**
- **Trade name: ACTICIDE 45**
- **Application of the substance/the mixture:** Biocidal product for industrial use.
- **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: Regulatory@thorsp.com
- **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

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H331 Toxic if inhaled.



GHS05 Corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms**



GHS05 GHS06 GHS07

- **Signal word** Danger

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• Hazard-determining components of labeling:

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

• Hazard statements

Toxic if swallowed or if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

• Precautionary statements

Avoid release to the environment.

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

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

• NFPA ratings (scale 0 - 4)



Health = 3

Fire = 1

Reactivity = 0

• HMIS-ratings (scale 0 - 4)



Health = 3

Fire = 1

Reactivity = 0

• Other hazards Other hazards have not been identified for this product.

3 Composition/information on ingredients

• Chemical characterization: Mixtures

• Dangerous components:

26530-20-1	2-Octyl-2H-isothiazol-3-one	45 - 48%
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4 First-aid measures

• 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): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

• If in eyes:

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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- Consult an eye specialist immediately.
- **If swallowed:**
 - If swallowed: Rinse mouth. Do NOT induce vomiting.
 - If swallowed: Immediately call a poison center/doctor.
 - A person vomiting while lying on their back should be turned onto their side.
 - Do not give anything by mouth to an unconscious person.
- **Note to physician:** Probable mucosal damage may contraindicate the use of gastric lavage.
- **Most important symptoms and effects, both acute and delayed**
Symptoms and effects are described in section 2 and 11.
- **Indication of any immediate medical attention and special treatment needed**
If swallowed or in case of vomiting, danger of entering the lungs.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Water spray jet, extinguishing powder, CO₂, 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_x)
 - Carbon monoxide (CO)
 - Sulphur dioxide (SO₂)
- **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

- **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:**
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.
- **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.
Decontamination: Surfaces can be decontaminated with a solution containing 5% sodium bisulfite and 5% sodium bicarbonate.

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Ensure adequate ventilation.

· **Reference to other sections** None

7 Handling and storage

· **Handling:**· **Precautions for safe handling**

Load carefully, avoid splashes.

Ensure good ventilation/exhaustion at the workplace.

Handle product in closed systems preferably.

Avoid pollution of the air at the workplace, caused e. g. by aerosol formation or by product heating.

Clean contaminated work equipment immediately to avoid skin corrosion/-irritation and/or allergic

skin reactions in case of unconscious skin contact.

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.· **Conditions for safe storage, including any incompatibilities**· **Storage:**· **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

Information about suitable materials for vessels and piping can be requested from our technical department (Tel.: 203-516-6980).

· **Information about storage in one common storage facility:**

Store away from oxidizing agents.

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.

· **Recommended storage temperature:** 15-30° C, 59-86 F· **Sensitivity against UV-radiation and heat:** Protect from heat and direct sunlight.· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, no constituents have any known exposure limits.

57-55-6 Propylene glycol (52-55%)WEEL 10 mg/m³· **Additional information:** The lists that were valid during the creation were used as basis.· **Exposure controls**· **Technical protective equipment:**

In case of contamination devices to rinse eyes or skin immediately under running water must be available.

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- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Do not breathe mist/vapors/spray.
 - 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:**
 - Thickness: 0.4 mm; break-through time: 480 min; material: Nitrile; permeation: level 6
- **Not suitable are gloves made of the following materials:**
 - Gloves for mechanical protection do not provide protection against chemicals.
- **Eye protection:**



Face shield (visor)

Use visor in combination with goggle.

- **Body protection:**



Protective work clothing.



Apron

Full head, face and neck protection

- **Risk management measures**
 - The operators shall be instructed adequately.
 - The workplace shall be inspected regularly by competent personnel e.g. the safety representative.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - Form:** liquid
 - Color:** yellow

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- **Odor:** Sweetish
- **Odor threshold:** Not relevant for safety
- **pH-value (10 g/l) at 22.9 °C (73.2 °F):** 4.7 (OECD 122 - S 3609)
The neat product is a non-aqueous system. Therefore a determination of the pH value is technically not possible.
- **Change in condition**
- Melting point/Melting range:** Not determined
- Boiling point/Boiling range:** > 188 °C (>370.4 °F)
- **Flash point:** > 104 °C (>219.2 °F)
- **Flammability (solid, gaseous):** Method not applicable
- **Ignition temperature:** > 400 °C (>752 °F) (CAS: 57-55-6)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
- Lower:** 2.4 Vol % (CAS: 57-55-6)
- Upper:** 12.6 Vol % (CAS: 57-55-6)
- **Oxidizing properties** None
- **Vapor pressure at 20 °C (68 °F):** 0.000031 hPa (0 mm Hg) (OIT)
- **Density at 20 °C (68 °F):** 1.02-1.04 g/cm³ (8.51-8.68 lbs/gal)
- **Relative density (D₂₀⁴) at 20 °C (68 °F)** 1.034 (OECD 109 - S 3610)
- **Vapor density** Not determined
- **Evaporation rate** Not determined
- **Solubility in / Miscibility with**
- Water:** Partly miscible.
- **Partition coefficient (n-octanol/water):** see section 12
- **Viscosity:**
- Dynamic:** Not determined
- **Other information** No further relevant information available.
- **Organic Volatiles:** 53.5% (calculated)

10 Stability and reactivity

- **Reactivity**
The classification criteria for the property "Corrosive to metals" according to Annex I section 2.16 CLP Regulation resp. the UN Regulations for the transport of dangerous goods, class 8, are not fulfilled. (S 4397)
For information about suitable materials for vessels and piping see section 7.2 (Requirements to be met by storerooms and containers).
- **Chemical stability**
- **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 ingredient(s).
- **Minimum shelf life:** 24 months from production date.

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- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
Oxidizing agents
Amines
- **Hazardous decomposition products:** None expected during normal storage, handling and use.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

· **Acute toxicity estimates (ATE) or LD₅₀/LC₅₀ values:**

Oral	LD ₅₀	279 mg/kg (rat) (OECD 401) S 80
Dermal	LD ₅₀	>2,000 mg/kg (rat) (OECD 402) S 77
Inhalative	LC ₅₀ / 4 h, dusts and mists	0.6 mg/l (rat) (OECD 403) S 78

- **Sensitization:** Sensitization possible through skin contact.

· **Results of studies:**

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

Sensitization	OECD 429 (LLNA)	(mouse) sensitising - S 526
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- **Carcinogenic categories**

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

· **Aquatic toxicity:**

EC ₅₀ / 48 h	0.9 mg/l (Daphnia) (OECD 202) S 95 (b)
LC ₅₀ / 96 h	0.08 mg/l (rainbow trout) (OECD 203) S 93 (b)
IC ₅₀ / 72 h	0.18 mg/l (Desmodesmus subspicatus) (OECD 201) S 63 (b)

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EC ₅₀ / 72 h	0.084 mg/l (Desmodesmus subspicatus) (OECD 201) S 63
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EC ₅₀ / 48 h	0.42 mg/l (Daphnia) (OECD 202) S 95
LC ₅₀ / 96 h	0.036 mg/l (rainbow trout) (OECD 203) S 93
NOEC / 21 d	0.002 mg/l (Daphnia) (OECD 211) S 96
NOEC / 28 d	0.022 mg/l (rainbow trout) (OECD 210) S 159
NOEC / 72 h	0.004 mg/l (Algae) (OECD 201) S 63

• **Evaluation:**

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

• **Toxicity on activated sludge organisms:**

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

EC ₂₀ / 0.5 h	10.4 mg/l (Activated Sludge) (TTC-Test (8901 Macherey-Nagel)) literature
EC ₂₀ / 3 h	7.3 mg/l (Activated Sludge) (OECD 209) literature

• **Evaluation:** Depending on concentration, toxic effects on activated sludge organisms are possible.

• **Persistence and degradability**

• **Degree of elimination:**

• **Rapid degradability of organic substances:**

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

OECD 309 Simulation Biodegradation - Surface Water	0.6-1.4 d (half-life) S 635
OECD 309 Simulation Biodegradation - Sea Water	1.6-2.1 d (half-life) (OECD 309 Simulation Biodegradation - Surface Water) S 636

• **Evaluation:** The component(s) is (are) rapidly degradable.

• **Behaviour in sewage treatment plants:**

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

OECD 303 A: Activated Sludge Units	>83 % (Activated Sludge) S 313
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• **Evaluation:** The substances are biodegradable in activated sludge units.

• **Behavior in environmental systems:**

• **Bioaccumulative potential**

• **BCF / LogKow:**

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

OECD 117 LogKow (HPLC Method)	2.92 (n-octanol/water) S 323
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• **Evaluation:** Does not accumulate in organisms

• **Mobility in soil** No further relevant information available.

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- **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.
- **Other adverse effects** Any other adverse effects on the environment are not expected.
- **12.7 Additional information**
- **Metals and their compounds according Directive 2006/11/EC:** None
- **European Water Framework Directive 2000/60/EC (WFD) dated 23.10.2000:**
The product does not contain any priority substances according WFD that require a water monitoring.
- **Absorbable organic halogen compounds (AOX):**
The product does not contain substances, which can influence the AOX of waste water.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Dispose in accordance with label and applicable Federal (RCRA), state and local regulations.
- **Uncleaned packagings:**
- **Recommendation:**
Do not allow cleaning liquid to enter into drains. Do not allow to enter into water.
In accordance with label and federal and local regulations.

14 Transport information

- **UN-Number**
 - **DOT, IMDG, IATA** UN2922
 - **UN proper shipping name**
 - **DOT** Corrosive liquid, toxic, n.o.s. (2-Octyl-2H-isothiazol-3-one)
 - **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)
 - **Transport hazard class(es)**
 - **DOT**
- 

- **Class** 8 Corrosive substances
 - **Label** 8, 6.1
 - **Class** 8 (CT1) Corrosive substances

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· Label 8+6.1

· IMDG



· Class 8 Corrosive substances
· Label 8/6.1

· IATA



· Class 8 Corrosive substances
· Label 8 (6.1)

· Packing group
· DOT, IMDG, IATA II

· Environmental hazards:
· Marine pollutant: Yes

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

· Special precautions for user Warning: Corrosive substances

· Danger code (Kemler): 86

· EMS Number: F-A,S-B

· Segregation groups To list the dangerous good under a certain segregation group is not necessary due to its intrinsic properties in compliance with IMDG section 7.2.5.3.

· Stowage Category B
· Stowage Code SW2 Clear of living quarters.

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

· Transport/Additional information:

· Limited quantities (LQ) 1L

· Excepted quantities (EQ) Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· Transport category 2

· Tunnel restriction code E

· IMDG

· Limited quantities (LQ) 1L

· Excepted quantities (EQ) Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

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- **IATA**
- **Remarks:** Packing Instructions / max. net weight: Passenger aircraft: 851 / 1 L; Cargo aircraft: 855 / 30 L
- **UN "Model Regulation":** UN 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (2-OCTYL-2H-ISOTHIAZOL-3-ONE), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information:

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **EPA:** 67071-6
- **Canada Pest Control Act Registration Number:** 27271
- **SARA:**

Section 302 (extremely hazardous substances):

None of the ingredient is listed.

- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):**
All ingredients are listed; product is exempt under TSCA Section 3.
- **California Proposition 65:** None of the ingredients are listed.
- **Canadian Domestic Substances List (DSL):** All ingredients are listed.
- **WHMIS:** Class: E and D1
- **Carcinogenic categories:**

ACGIH:

None of the ingredients is listed.

NIOSH (National Institute for Occupational Safety and Health):

None of the ingredients is listed.

Labeling elements under federal pesticide law (FIFRA):

This chemical is a pesticide product registered by the US-EPA and is subject to certain labeling requirements under federal pesticide law (FIFRA). These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide labels.

The hazard information as required on the pesticide label for this chemical is as follows:

DANGER

Corrosive. Causes permanent, irrevocable eye damage and skin burns. May cause allergic skin reaction. May be fatal if swallowed. Harmful if absorbed through skin or inhaled. Prolonged or repeated overexposure can cause central nervous system effects and kidney and liver damage.

- **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.

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• Training hints

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

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

• Classification according to Regulation (EC) No 1272/2008

The classification includes the relevant available information about the mixture or the substances contained therein.

The evaluation of the available information within the scope of classification refers to the forms and aggregate states in which the mixture has been placed on the market and will be used most likely.

• Contact for technical information Biocides: info@ThorSp.com**• Date of preparation / last revision** 10/29/2018 / 91**• Abbreviations and acronyms:**

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

• Key literature references and sources for data:

Data source(s): Biocidal product dossier(s)

Own studies (reference to S-number).

• * Data compared to the previous version altered.

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