

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 10.06.2014

Version number 10

Revision: 06.06.2014

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- **1.1 Product identifier**
- **Trade name: ACTICIDE BAC 50 M**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Biocidal product for industrial use.
- **1.3 Details of the supplier of the safety data sheet**
- **Address and telephone number of the supplier:**  
Thor Specialities (UK) LTD.  
Wincham Avenue  
Wincham Northwich  
Cheshire CW9 6GB  
United Kingdom  
Phone: (UK) +44 (0) 1606 818800  
Fax: (UK) +44 (0) 1606 818801
- **Competent person responsible for the Material Safety Data Sheet:**  
Regulatory Department: sds@thor.uk.com
- **1.4 Emergency telephone number:**  
National Poisons Information Service (24 h service):  
Phone: +44 (0) 844-892-0111 (UK only)  
Transport Emergency phone number (24 h service):  
Phone: +49 621 60-43333 - Fax: +49 621 60-92664

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Met. Corr.1      H290 May be corrosive to metals.

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



GHS09 environment

Aquatic Acute 1    H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4      H302 Harmful if swallowed.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



C; Corrosive

R34: Causes burns.



Xn; Harmful

R22: Harmful if swallowed.

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Trade name: **ACTICIDE BAC 50 M**

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N; Dangerous for the environment

R50: Very toxic to aquatic organisms.

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



GHS05 GHS07 GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides
- **Hazard statements**  
H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.
- **Precautionary statements**  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
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.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### SECTION 3: Composition/information on ingredients

- **3.2 mixtures**
- **Description:** Microbiocide based on benzalkonium chloride.

• **Dangerous components:**

CAS: 68424-85-1 EINECS: 270-325-2	Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides C R34;  Xn R22;  N R50 Met. Corr. 1, H290;  Skin Corr. 1B, H314;  Eye Dam. 1, H318; Aquatic Acute 1, H400;  Aquatic Chronic 1, H410;  Acute Tox. 4, H302	50%
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- **Additional information** For the wording of the listed risk/hazard phrases refer to section 16.

• **Ingredients according to Directive 648/2004/EC:**

cationic surfactants	≥ 30%
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**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information**  
Obtain special instructions from the poison information centre: Phone: +44 (0) 844-892-0111 (UK only) - see as well section 1.4.  
Personal protection for the First Aider.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**  
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.
- **After eye contact**  
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.
- **After swallowing**  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
Do not give anything by mouth to an unconscious person.  
Bring vomiting person into recovery position.
- **4.2 Most important symptoms and effects, both acute and delayed**  
Corrosive damage to gastro-intestinal tract.
- **Information for doctor** Probable mucosal damage may contraindicate the use of gastric lavage.
- **Danger** Danger of gastric perforation.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
If swallowed, gastric irrigation with activated carbon.  
Rinse eyes thoroughly with physiological saline.

**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Water spray jet, extinguishing powder, CO<sub>2</sub>, foam.
- **Unsuitable extinguishing agents for reasons of safety:** None
- **5.2 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>)  
Hydrogen chloride (HCl)  
Carbon monoxide (CO)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**  
Collect contaminated fire fighting water separately. It must not enter drains.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Particular danger of slipping on leaked/spilled product.  
Wear protective clothing (see item 8).

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Keep unprotected persons away.

When selecting the protective suit attention has to be paid to the complete and safe protection of skin and mucous membranes. Impermeable protective clothes, protective boots made of neoprene, complete face protection and nitrile-rubber-gloves with long tops should be worn.

**· 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 authorities in case of contamination of water 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 material as waste according to item 13.

Decontamination procedure: Quats are incompatible with anionic compounds, e. g. with anionic surfactants. If product is released unintentionally into waste water, drain the contaminated waste water and collect it in an appropriate container. Adjust with sodium lauryl sulphate solution (concentration twice as high as the active ingredient in the wastewater) to a mixture ratio of 1:1.

Request further instructions from the supplier. Polluted surfaces can be decontaminated with a 10% sodium lauryl sulphate solution.

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

Ensure good exhaust ventilation at the workplace.

It is preferable to handle the product in a closed system.

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 explosion and fire: No special measures required.****· 7.2 Conditions for safe storage, including any incompatibilities****· Storage****· Requirements to be met by storerooms and containers:**

Store only in the original container.

Information about suitable materials for vessels and piping can be requested from our sales department Tel.: +44(0)1606 818800.

**· Information about storage in a common storage facility: Store away from foodstuffs.****· Further information about storage conditions:**

If the product crystallizes at low temperatures, it can be restored by slowly warming the product.

The effectiveness is not affected hereby.

Prevent release to the environment by adequate secondary containment design and use of appropriate spill control procedures.

**· Minimum storage temperature: 10 °C****· Sensitivity against frost: Protect from frost.****· 7.3 Specific end use(s) No further relevant information available.****SECTION 8: Exposure controls/personal protection****· 8.1 Control parameters****· Components with critical values that require monitoring at the workplace: None established.**

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- **Additional information:** Information valid at the time of review of safety data sheet.

- **8.2 Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures:**

Use skin cream for skin protection.

Avoid contact with the eyes and the skin.

Wash hands during work breaks and at the end of the shift.

Provide skin protection plan.

- **Respiratory protection:** Not required

- **Protection of hands:**



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

Check the condition of protective gloves after each use for any damages like holes, cuts or tears.

Do not wear protective gloves longer than necessary.

After use of gloves apply skin-cleaning agents and skin cosmetics.

- **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

- **Gloves made of the following materials are not suitable:**

Gloves for mechanical protection do not provide protection against chemicals.

- **Eye protection:**



Face shield (visor) with CE - label

A device for rinsing eyes must be available at the work place

- **Body protection:**



Protective 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.

**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Liquid

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- Colour:** Colourless to yellowish  
Clear
- **Odour:** Mild
- **Odour threshold:** Not relevant for safety
- **pH-value at 20 °C:** 6.0 - 9.0 (VK-Spez.)
- **Change in condition**  
  - Melting point/Melting range:** ca. 0 °C
  - Boiling point/Boiling range:** > 107 °C
- **Flash point:** Not applicable
- **Self-inflammability:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive.
- **Vapour pressure at 20 °C:** 23 mbar
- **Density at 20 °C** 0.975 - 0.995 g/cm<sup>3</sup>
- **Solubility in / Miscibility with Water:** Fully miscible
- **9.2 Other information** No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Corrosive action on metals possible.
- **10.2 Chemical stability**
- **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Minimum shelf life:** 24 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:**  
 Oxidizing agents  
 Anionic compounds
- **10.6 Hazardous decomposition products:**  
 None, if storage and handling is done according to specification.

### SECTION 11: Toxicological information

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

- **LD/LC50 values that are relevant for classification:**

Oral	LD50	795 mg/kg (rat) S 477
Dermal	ATE mix	> 5000 mg/kg (calculated)

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

**68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides**

Dermal	OECD 404 (skin)	corrosive (rabbit) (OECD 404) S 478, S 479
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- **on the eye:** Based on the skin toxicity data this mixture is assumed to cause severe eye damage.  
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- **Sensitisation:**

Non sensitising.

<b>68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides</b>		
Sensitisation	OECD 406 (MKA)	not sensitising (Guinea pig) (OECD 406) S 480

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):**

This mixture is not considered to be "CMR" based on results of tests with the ingredients.

### SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

<b>68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides</b>	
EC50 / 48 h	0.016 mg/l (Daphnia)
EC50 / 72 h	0.026 mg/l (Selenastrum capricornutum) (OECD 201) S 470
LC50 / 96 h (static)	0.85 mg/l (rainbow trout) (OECD 203) S 469

- **12.2 Persistence and degradability**

- **Method** OECD 301 D (Closed-Bottle Test)

- **Analysing method** Oxygen demand

- **Degree of elimination:** The product ingredients can be readily eliminated in the sewage system.

- **Biodegradability:**

Degree of biological degradability: &gt; 60%

The components are rapidly biodegradable.

- **12.3 Bioaccumulative potential**

Not worth-mentioning accumulating in organisms

log Kow 0.5 - 1.58; BAC

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

- **Ecotoxicological effects:**

- **Behaviour in sewage processing plants:**

<b>68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides</b>	
EC20 / 0.5 h	5 mg/l (Activated Sludge) (OECD 209) S 2020

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

- **Additional ecological information:**

- **COD-value:** 1130 mg O<sub>2</sub>/g product

- **AOX-indication:**

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

Care should be paid to properly washing out the chloride when performing the AOX method.

- **The formulation contains the following heavy metals and their compounds according to Directive 2006/11/EC:**

None

- **General notes:**

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

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- **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.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must be specially treated under adherence to official regulations.  
Appropriate disposal operations according to Directive 2008/98/EC on waste: D 10 Incineration on land

#### · European waste catalogue

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 03 00	off-specification batches and unused products
16 03 05*	Organic wastes containing dangerous substances

- **Contaminated packaging:**
- **Recommendation:** Remove all product from packaging and clean thoroughly before recycling.
- **Recommended cleaning agent:** Water

### SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA**
- **14.2 UN proper shipping name**
- **ADR**
- **IMDG**
- **IATA**
- **14.3 Transport hazard class(es)**

UN1760

1760 CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides), ENVIRONMENTALLY HAZARDOUS

CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides), MARINE POLLUTANT  
CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides)

#### · ADR



- **Class**
- **Label**

8 (C9) Corrosive substances.  
8

#### · IMDG



- **Class**

8 Corrosive substances.

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· Label	8
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· IATA	
	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	
· 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.
· Kemler Number:	80
· 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:	
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· ADR	
· Limited quantities (LQ)	1L
· Transport category	2
· Tunnel restriction code	E
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· IATA	
· Remarks:	Packing Instructions / max. net weight: Passenger aircraft: 851 / 1 L; Cargo aircraft: 855 / 30 L
· UN "Model Regulation":	UN1760, CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides), ENVIRONMENTALLY HAZARDOUS, 8, II

### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Information about limitation of use:
  - Take note of Directive 94/33/EC on the protection of young people at work.
  - Take note of Directive 92/85/EC on the safety and health of pregnant women at work.
- Regulations which may apply in event of accident: Control of Major Accident Hazards (COMAH)
  - Critical quantity values according to the regulations on accidents should be adhered to.
- PCS-no. (IRL): 93746
- Indication of VOC:
- Directive 1999/13/EG:
  - This product does not contain any relevant amounts of "Volatile Organic Compounds" (VOC).
- Directive 2004/42/EG:
  - The product does not contribute significantly to the total content of VOCs in paints and varnishes.

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This data is based on our current knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.

· **Relevant phrases**

H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

R22 Harmful if swallowed.  
R34 Causes burns.  
R50 Very toxic to aquatic organisms.

· **Training hints**

Further information regarding the directions for use can be found in the Product Data Sheet.

· **Contact for technical information:** Biocides: info@thor.uk.com· **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  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
Met. Corr. 1: Corrosive to metals, Hazard Category 1  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1  
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

· **\* Data altered since the previous version.**