



## HEALTH AND SAFETY DATA SHEET

1. **PRODUCT:** MANGERS Fungicidal Spray **PAGE:** 1 of 5  
**REVISION:** 7 **DATE:** 1.11.07  
**USE:** A ready for use water-borne sterilisation fluid to prevent and inhibit the growth of mould and mildew.  
For use only as a surface biocide. Application by trigger spray.

### 2. HAZARDS IDENTIFICATION

The product is cleared under the U.K. Government's 'The Control of Pesticides Regulations 1986' for use as directed. HSE No.7035. Refer to sections 15 and 16 for full classification and statutory conditions relating to use.  
The product is not classified as dangerous according to the CHIP Regulations. Also refer to section 11.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of the CHIP Regulations or which are assigned Workplace Exposure Limits: -

Name	EC No	CAS No	Conc.Range	Symbol*	R-Phrases*
Benzalkonium Chloride	264-151-6	63449-41-2	1.5%	C.N	21,22,34,50

\* for full text see section 16.

See section 16 for information on ingredients as required by Detergents Regulation (EC) No 648/2004

### 4. FIRST AID MEASURES

**General:** In all cases of doubt or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

**Inhalation:** Remove to fresh air, keep patient warm and at rest. If breathing has stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in the recovery position and seek medical advice.

**Skin Contact:** Remove contaminated clothing. Wash skin thoroughly with plenty of water.

**Eye Contact:** Remove contact lenses. Irrigate copiously with clean, fresh water, holding eyelids apart, and seek medical advice.

**Ingestion:** If accidentally swallowed obtain immediate medical attention. Keep at rest. DO NOT induce vomiting.

### 5. FIRE FIGHTING MEASURES

The liquid product is 'non-flammable'.

**Extinguishing Media:**

Recommended: alcohol resistant foam, CO<sub>2</sub>, powder, water spray/mist

Not to be used: water jet

**Recommendations:** Fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health. Appropriate self contained breathing apparatus may be required. Cool closed containers exposed to fire with water spray. Do not allow run off from fire fighting to enter drains or water courses.

### 6. ACCIDENTAL RELEASE MEASURES

Avoid breathing vapours. Refer to protective measures listed in sections 7 and 8. Contain and collect spillages with non-combustible absorbent materials e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal in accordance with the waste regulations (see section 13). Do not allow to enter drains or water courses. Clean with water. If the product enters drains or sewers, immediately contact the local water company; in case of contamination of streams, rivers or lakes, the relevant environment agency.

**7. HANDLING AND STORAGE**

**HANDLING:** Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in storage and use areas. For Occupational Exposure Controls measures see Section 8. Keep the container tightly closed.

The **Manual Handling Operations Regulations** may apply to the handling of containers/packages of the product. To assist employers the following method of calculating the weight of any pack size is given. Take the pack size volume in litres and multiply this figure by the specific gravity value given in section 9. This will give the net weight of the product in kilograms. Allowance will then have to be made for the immediate packaging to give an approximate gross weight.

**STORAGE:**

Observe label precautions – Store between 5°C and 25°C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Prevent unauthorized access. No smoking. Keep out of the reach of children. Store separately from oxidizing agents and strongly alkaline and strongly acidic materials. Containers which are opened should be properly resealed and kept upright to prevent leakage.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**EXPOSURE CONTROLS:** Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and/or solvent vapours below the Exposure Limit Values, suitable respiratory protective equipment must be worn (see ‘Occupational Exposure Controls’ below).

**EXPOSURE LIMIT VALUES:**

Substance	Exposure Limit Values				Notations
	8 hr LTEL (1)		15 min STEL (2)		
	ppm	mg m <sup>-3</sup>	ppm	mg m <sup>-3</sup>	
-	-	-	-	-	-

(1) Long-Term Exposure Limit – 8 hour Time Weighted Average

(2) Short-Term Exposure Limit – 15 mins Time Weighted Average

(W) Workplace Exposure Limit (WEL)

(SUP) Recommended by suppliers

(A) Allocated limits by analogy with similar materials

WEL’s are taken from current version of EH40, except those marked (SUP) which are assigned by the supplier of the substance

**OCCUPATIONAL EXPOSURE CONTROLS:** All Personal Protective Equipment, including Respiratory Protective Equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations.

**RESPIRATORY PROTECTION:** If exposure to hazardous substances identified above cannot be controlled by the provision of local exhaust ventilation and good general extraction e.g. work in enclosed areas, suitable respiratory protective equipment should be worn.

**HAND PROTECTION:** When skin exposure may occur, advice should be sought from glove suppliers on appropriate types and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Barrier creams may help to protect exposed areas of skin but are not substitutes for full physical protection. They should not be applied once exposure has occurred.

**EYE PROTECTION:** Eye protection designed to protect against liquid splashes should be worn.

**SKIN PROTECTION:** Cotton or cotton/synthetic overalls or coveralls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a recognised skin cleaner. Regular skin inspection of users of the product is recommended. ALWAYS WASH YOUR HANDS BEFORE EATING, SMOKING OR USING THE TOILET.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

physical state	liquid	
flash point	>100°C	BS2000. Part 170
specific gravity	1.00-1.01 @ 20°C	
solubility in water	soluble	
pH	7-9	

**10. STABILITY AND REACTIVITY**

Stable under the recommended storage and handling conditions (see section 7). In a fire, hazardous decomposition products such as smoke, carbon dioxide, carbon monoxide and oxides of nitrogen may be produced. Keep away from Oxidizing agents and strongly alkaline and strongly acidic materials to prevent the possibility of an exothermic reaction.

### 11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself. The product has been assessed following the conventional method in CHIP and is classified for toxicological hazards accordingly. This takes into account, where known, delayed and immediate effects and chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. See sections 2 and 15 for details of the resulting hazard classification. Splashes in the eye may cause irritation and reversible local damage. Repeated or prolonged contact may lead to removal of natural fats from the skin resulting in non allergic contact dermatitis.

### 12. ECOLOGICAL INFORMATION

There is no data available on the product itself. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. The product has been assessed following the conventional method in CHIP and is not classified as dangerous for the environment, but contains substances so classified. See section 3 for details.

Substance classified As DfE (1)	Mobility (2)	Persistence and Biodegradability (2)	Other adverse Effects
Benzalkonium Chloride	Soluble in water	OECD Slowly biodegradable	LC50 1-10 mg/l

(1) All substances listed in Section 3 and classified as dangerous for the environment (DfE).

(2) Information taken from suppliers' safety data sheet and relevant to impacts in the accidental release in storage, handling, use and disposal.

**The surfactant contained in this preparation complies 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

### 13. DISPOSAL CONSIDERATIONS

Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.

The classification of this product, when disposed of as waste is 07 04 01. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information contact your local waste authority.

Wastes, including emptied containers, are controlled waste and should be disposed of in accordance with regulations made under The Control of Pollution Act and The Environmental Protection Act. Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.

### 14. TRANSPORT INFORMATION

**Transport within the users premises:** - Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Onwards transport subsequent to purchase:** - Transport to be in accordance with ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air.

Proper shipping name: The product is not classified as dangerous for carriage  
UN number:  
Hazard class:  
Packaging Group:  
Sub-hazard class:

### 15. REGULATORY INFORMATION

The product is classified and labelled in accordance with the requirements of the 'Control of Pesticides Regulations' 1986 and the CHIP Regulations as follows: -

**Classification:** -

**Symbol:** -

**Name:** Contains Benzalkonium Chloride

### STATUTORY CONDITIONS RELATING TO USE – Refer to page 5

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work etc. Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

**16. OTHER INFORMATION**

**Symbols and text of the R phrases in section 3: -**

**RISK PHRASES**

R21 Harmful in contact with skin  
R22 Harmful if swallowed  
R34 Causes burns  
R50 Very toxic to aquatic organisms

**WARNING SYMBOLS**

C Corrosive  
N Dangerous for the Environment

**INFORMATION ON INGREDIENTS as required by Detergents Regulation (EC) No 648/2004**

Ingredient	Concentration	CAS No	INCI name	Pharmacopoeia name
Water	10% or more	7732-18-5	Aqua	Aqua
Benzalkonium Chloride	1% or over, but less than 10%	63449-41-2	Benzalkonium Chloride	-

The information contained in the Health and Safety Data Sheet is provided in accordance with the requirements of the CHIP Regulations. The product should not be used for purposes other than those shown in section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. This information contained in the safety data sheet is based on present knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Further information and advice can be found in: -

The Control of Substances Hazardous to Health Regulations 2002 (SI2002:2677) and amendments  
COSHH Essentials: easy steps to control chemicals (HSG193). Details of Control Guidance Sheets, which may be relevant to the particular conditions of use, can also be found in this publication.  
Dangerous Substances and Explosive Atmospheres Regulations 2002 (SI 1992:2793)  
ACoP - Dangerous Substances and Explosive Atmospheres Regulations 2002 (L138)  
The Manual Handling Regulations 1992 (SI 1992:2793)  
Chemical Warehousing: The Storage of Packaged Dangerous Substances (HSG51)  
The Environmental Protection (Duty of Care) Regulations 1992 (SI 1992:2839)  
A Guide to Working with Solvents (INDG 272)  
HSE website [www.hse.gov.uk](http://www.hse.gov.uk)

**PRODUCT:** MANGERS Fungicidal Spray  
**REVISION:** 7

**PAGE:** 5 of 5  
**DATE:** 1.11.07

## **CONTAINS BENZALKONIUM CHLORIDE 1.5% W/W (15g/l)**

### **STATUTORY CONDITIONS RELATING TO USE**

FOR USE ONLY AS A WOOD TREATMENT AND SURFACE BIOCIDES.

APPLY AT A RATE OF 500 ML OF PRODUCT PER 2.5 SQUARE METRES OF SURFACE by trigger spray.

Wear suitable protective clothing and suitable gloves.

Do not breathe spray.

UNPROTECTED PERSONS AND ANIMALS SHOULD BE KEPT AWAY FROM TREATED AREAS FOR 48 HOURS OR UNTIL TREATED SURFACES ARE DRY.

This product contains substances which are known to be hazardous to the environment.

REMOVE OR COVER FOODSTUFFS before application.

Do not contaminate ground, waterbodies or watercourses with chemicals or used container.

Do not empty into drains

DO NOT USE NEAR DRAINS.

PREVENT ANY SURFACE RUN OFF FROM ENTERING DRAINS.

AVOID ALL CONTACT WITH PLANT LIFE.

COVER ALL WATER STORAGE TANKS before application.

DO NOT CONTAMINATE FOODSTUFFS, EATING UTENSILS OR FOOD CONTACT SURFACES.

This material and its container must be disposed of in a safe way.

**READ ALL PRECAUTIONS BEFORE USE (HSE NO. 7035).**

### **PRECAUTIONS**

WASH ANY CONTAMINATION from skin or eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after use.

Keep out of the reach of children.

Keep only in original container.

Keep container tightly closed.

KEEP IN A SAFE PLACE.

Safety data sheet available for professional user on request.

THIS PRODUCT IS APPROVED UNDER THE CONTROL OF PESTICIDES REGULATIONS 1986 FOR USE AS DIRECTED. HSE NO. 7035.

**READ ALL PRECAUTIONS BEFORE USE**