

# Safety Data Sheet

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**REVISION (see box 16)**

Issue : 03 07 : 11 : 2005

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
<b>Product Name</b>	<b>CT 332K</b>
<b>Description</b>	Product is a blend of scale inhibitors and dispersants for use as a water treatment chemical. A clear colourless to pale yellow liquid.
<b>Company</b>	Rentokil Initial Supplies, Head office: Felcourt, East Grinstead, West Sussex. RH19 2JY. United Kingdom. Telephone: +44 (0)1342 833022 Facsimile: +44 (0)1342 326229

2 HAZARD IDENTIFICATION	
<b>Classification (Supply – Use) : In compliance with EC Directive 1999/45.</b>	
<b>X<sub>i</sub> Irritant</b>	R43 May cause sensitisation by skin contact.
<b>Adverse Physical, Chemical, Significant Human Health and Environmental Effects (See also box 11):</b>	
May cause sensitisation by skin contact and may cause irritation to eyes. Ingestion may cause irritation to the digestive system.	

3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)		
% w/w	Common*/Chemical Name, Elincs/Einecs & CAS No. of Ingredients	EC 1999/45 Classification
≤0.1	Bronopol* / 2-bromo-2-nitropropane-1,3-diol EINECS : 200-143-0 CAS : 52-51-7	X <sub>n</sub> : R21/22 X <sub>i</sub> : R37/38 : R41 N : R50
≤0.1	3:1 Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one CAS No of CIT: MIT mixture : 55965-84-9 and 2-methyl-2H-isothiazol-3-one	T : R23/24/25 C : R34 X <sub>i</sub> : R43 N : R50,53

**CT 332K**

<b>4 FIRST-AID MEASURES (SEE ALSO “ADVERSE EFFECTS” IN BOX 2)</b>	
<b>Inhalation</b>	Remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention.
<b>Eye Contact</b>	Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyelids well apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medical attention.
<b>Skin Contact</b>	Remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice.
<b>Ingestion (Swallowing)</b>	Do NOT induce vomiting. If unconscious place in the recovery position and apply supportive measures if necessary. If conscious give patient up to ½ litre or 1 pint of water to drink. Seek medical attention.
<b>Emergency Equipment Suggested</b>	Appropriate first-aid equipment should be provided. For the UK this should be in accordance with the Health & Safety (First-Aid) Regulations 1981. See also the Approved Code of Practice “First-aid at Work”.
<b>Note To Doctor</b>	Further information on all Rentokil Initial formulations is lodged with the National Poisons Information Service in the UK.

<b>5 FIRE FIGHTING MEASURES</b>	
<b>Fire Extinguisher Type</b>	Use carbon dioxide, foam, water-fog, or dry powder extinguishers.
<b>Special Fire-Fighting Procedures</b>	Wear suitable personal protective equipment.
<b>Special Exposure Hazards</b>	Oxides of carbon may be evolved in the event of a fire.

<b>6 ACCIDENTAL RELEASE MEASURES</b>	
<b>Personal Precautions (See also box 8)</b>	Wear suitable personal protective equipment.
<b>Environmental Precautions</b>	DO NOT contaminate watercourses or ground with large quantities of undiluted product.
<b>Clean-up Procedure (See also box 13)</b>	Absorb spill with an inert material such as sand, earth or sawdust. Transfer to a suitable container for subsequent disposal.

<b>7 HANDLING AND STORAGE (SEE ALSO BOX 8)</b>	
<b>Handling</b>	No specific handling requirements.
<b>Storage</b>	Store in original container in a cool, dry, ventilated place out of the reach of children and away from food, drink and animal feeding stuffs. Protect from frost.

<b>8 EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	
<b>Exposure Standard - Directive EC/98/24 (1<sup>st</sup> IOELV Directive)</b>	Not assigned.
<b>Engineering Controls</b>	Where exposure may occur, engineering controls, rather than the provision of Personal Protective Equipment (PPE) should be employed. On completion of a risk assessment, the following PPE may be required:
<b>Eye Protection</b>	Suitable eye protection such as goggles.
<b>Hand Protection</b>	Suitable hand protection such as chemical-resistant gloves.
<b>Skin Protection</b>	Suitable skin protection such as coveralls.
<b>Breathing Protection</b>	None necessary during normal handling and use, unless ventilation is inadequate, in which case wear suitable respiratory protection.
<b>Environmental Exposure Controls</b>	Use only in accordance with instructions given.

<b>9 PHYSICAL AND CHEMICAL PROPERTIES</b>			
<b>Appearance and Odour</b>	A clear colourless to pale yellow liquid.		
<b>pH</b>	7.1 at 20°C	<b>Solubility in Water</b>	Miscible.
<b>Specific Gravity</b>	1.2 at 20°C	<b>Solubility in Fat</b>	Not determined.
<b>Flash Point</b>	Not applicable.	<b>Explosive Properties</b>	None.
<b>Flammability</b>	Non-flammable.	<b>Combustibility</b>	Non-combustible.
<b>Boiling Point/Range</b>	Starts at ca. 100°C	<b>Oxidising Properties</b>	None.
<b>Vapour Density</b>	Not determined.	<b>Evaporation Rate</b>	Not determined.
<b>Vapour Pressure</b>	Not determined.	<b>Partition Coefficient</b>	Not applicable.
<b>Viscosity</b>	Not determined.	<b>Other Data</b>	None known.

## 10 STABILITY AND REACTIVITY

<b>Conditions to avoid</b>	Avoid extremes of temperature, e.g. below 0°C and above 40°C.
<b>Materials to avoid</b>	Avoid contact with strong acids, bases and oxidising agents.
<b>Hazardous Breakdown Products</b>	Oxides of carbon may be evolved in the event of a fire.

## 11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

<b>Acute Toxicity</b>	Oral	Ingestion may cause irritation to the digestive system. For Acticide LA: 1665 mg/kg (rat)
	Inhalation	For Acticide LA: LC <sub>50</sub> / 4h 2mg/L (rat)
<b>Corrosivity/Irritation</b>	Dermal	For Acticide LA: >2000 mg/kg (rat)
	Skin	Not expected to be irritating to skin.
	Eyes	May be irritating to eyes.
	Respiratory tract	Not expected to be irritating to respiratory tract.
<b>Sensitisation</b>	Skin	May cause sensitisation by skin contact.
	Respiratory	Contains no known respiratory sensitisers.
<b>Repeat-Dose Toxicity</b>		Product does not contain any components known to have any effects relating to repeated-dose toxicity.
<b>Mutagenicity</b>		Product does not contain any components known to have a mutagenic effect.
<b>Carcinogenicity</b>		Product does not contain any components known to have a carcinogenic effect.
<b>Reproductive Toxicity</b>	Fertility	Product does not contain any components known to have effects on fertility.
	Development	Product does not contain any components known to be toxic to the reproductive system.
<b>Other Information</b>		None known.

## 12 ECOLOGICAL INFORMATION

<b>General Information</b>	The bronopol and (mixture of): 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one in this product are classified as very toxic to aquatic organisms and very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment respectively. However, when used in accordance with instructions given, controlled release of this product is not expected to cause environmental contamination.
<b>Ecotoxicity Data</b>	For bronopol: EC <sub>50</sub> > 50 mg/L (bacteria) EC <sub>50</sub> 48 h 1.4 mg/L ( <i>Daphnia</i> ) EC <sub>50</sub> 72 h 0.4 – 2.8 mg/L (algae) LC <sub>50</sub> 96 h 35.7 mg/L (Bluegill sunfish)
<b>Mobility</b>	Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one: LC <sub>50</sub> 96 h 0.22 mg/L (Rainbow trout)
<b>Persistence and Degradability</b>	EC <sub>50</sub> 120 h 0.043 mg/L (Filamentous Algae) EC <sub>50</sub> 48 h 0.12 mg/L ( <i>Daphnia</i> ) Not determined.
<b>Bioaccumulative Potential</b>	Not determined.
<b>Other Adverse Effects</b>	Not expected to bioaccumulate. 15-180 ppm bronopol will be present in this product. In anaerobic systems, bronopol at up to 15 ppm has no significant on the anaerobic digestion of sewage sludge. The continuous addition of up to 50 ppm bronopol contaminated effluent water to an adapted biological treatment plant is, however, tolerable without any suppression of oxygen uptake. For diluted product this should not present a problem.

## 13 DISPOSAL CONSIDERATIONS

<b>Disposal of Waste / Containers</b>	Ensure that this product is disposed of as controlled waste, in accordance with the appropriate regulations.
<b>Classification</b>	<u>Hazard Code</u> : Not classified.
(Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC))	<u>Components making the waste hazardous</u> <u>Concentrations (%)</u> : Not required.
<b>Note for Disposal</b>	For further advice about disposal, in the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Protection Agency. Local rate from anywhere in the UK: +44 (0) 870 850 6506.

**14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)**

<b>UN No.</b>	Not Classified.	<b>Tremcard Reference No.</b>	Not required.	<b>RIS Code</b>
<b>Transport Category</b>	Not required.	<b>UK Hazchem EAC</b>	Not required.	PCT332K
<b>ADR 2005 (International Road)</b>	<b>Class</b> Not required.	<b>ADR HIN</b>	Not required.	<b>Labels</b>  Not required.
<b>Proper Shipping Name</b>	Not required.			
<b>Limited Quantity Exemptions</b>	Not required.			
<b>Special Requirements</b>	Not required. <b>Packing Group</b> Not required.			
<b>IMDG 2004 (Sea)</b>	<b>Class</b> Not required.	<b>IMDG EMS</b>	Not required.	
<b>Proper Shipping Name</b>	Not required.			
<b>Limited Quantity Exemptions</b>	Not required.			
<b>Special Requirements</b>	Not required. <b>Packing Group</b> Not required.			
<b>Note for Transport</b>	Local, State or National requirements may apply to the carriage of this product.			

**15 REGULATORY INFORMATION (HEALTH AND SAFETY INFORMATION (SEE ALSO BOX 2))**

<b>Safety Phrases</b>	S24 Avoid contact with skin. S35 This material and its container must be disposed of in a safe way. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S46 If swallowed, seek medical advice immediately and show this container or label.
<b>Additional Label Phrases</b>	Not required.
<b>Legislation</b>	Labelling is in accordance with UK regulations implementing the EC Directive 1999/45. Additional labelling requirements may be necessary in accordance with other National legislation. Outside the UK, the registration of this product may be necessary before use and any additional local requirements must be observed at all times. The information given on this Safety Data Sheet (SDS) <b>does not</b> constitute an assessment in accordance with Control of Substances Hazardous to Health (COSHH) Regulations 2002, in the UK. Other National measures or guidance should be sought where appropriate.

**16 Other Information and indication of revisions**

<b>Packaging Information</b>	A tighthead 12.5 litre, plastic bottle with a screw top.
<b>Revisions</b>	Changes have been made to the content of boxes 1, 2, 3, 4, 7, 8, 9, 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 02.
<b>Risk phrase text</b> (From box 3 - These refer to the ingredients only. See box 11 for the product risk phrases)	R21/22 : Harmful in contact with skin and if swallowed. R37/38 : Irritating to respiratory system and skin. R50,53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment R41 : Risk of serious damage to eyes. R50 : Very toxic to aquatic organisms R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed. R34 : Causes burns. R43 : May cause sensitisation by skin contact.

**CT 332K**

SDS No. 778

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**Before using any product, ensure that you read and understand its label.**

The information contained in this safety data sheet is, to the best of our knowledge and belief, accurate and reliable at the time of publication. The information relates only to the specific material designated in this safety data sheet and may not be valid for such material if it is used in combination with any other material(s) or any other use than that specified herein. Rentokil Initial UK Ltd is not liable for the use of this product for any other purpose than that described in this safety data sheet. This does not affect your statutory rights. It is the user's responsibility to satisfy him/herself as to the suitability in completeness of such information for his/her own particular use.

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