

# Safety Data Sheet

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**REVISION (see box 16)**

Issue : 07 07 : 11 : 2005

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
<b>Product Name</b>	<b>CT 312</b>
<b>Description</b>	Product is a blend of scale inhibitors, corrosion inhibitors and a dispersant. A clear colourless to pale yellow liquid with no characteristic odour.
<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 to skin and irritation to eyes. If swallowed in large quantities, may cause nausea and vomiting and irritation of the digestive system. Inhalation of any aerosol may cause irritation of the respiratory 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
>2.5 ≤10.0	Molybdenum trioxide EINECS : 215-204-7 CAS : 1313-27-5	X <sub>n</sub> : R20/22 X <sub>n</sub> : R48 X <sub>i</sub> : R36/37
≤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: CAS No of CIT: MIT mixture : 55965-84-9 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	T : R23/24/25 C : R34 X <sub>i</sub> : R43 N : R50,53

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<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, or dry powder extinguishers.
<b>Special Fire-Fighting Procedures</b>	Wear suitable personal protective equipment.
<b>Special Exposure Hazards</b>	May evolve toxic fumes including sodium oxide 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 Storage</b>	No specific handling requirements. 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.

<b>8 EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	
<b>Exposure Standard - Directive EC/98/24 (1<sup>st</sup> IOELV Directive)</b>	WEL for molybdenum trioxide (as soluble molybdenum) is 5 mg/m <sup>3</sup> long-term exposure (8 hour Time Weighted Average) and 10 mg/m <sup>3</sup> short-term exposure (15 minute reference period).
<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 with no characteristic odour.		
<b>pH</b>	4.7 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 determined.	<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>	Melting point: ca. -5°C

## 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 accidental or uncontrolled contact with halogens and inter-halogen compounds and metals.
<b>Hazardous Breakdown Products</b>	May evolve toxic fumes including sodium oxide in the event of a fire.

## 11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)


<b>Acute Toxicity</b>	Oral	If swallowed in large quantities, may cause nausea and vomiting and irritation of the digestive system. For Acticide LA: 1665 mg/kg (rat)
	Inhalation	Inhalation of any aerosol may cause irritation of the respiratory system. 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)
	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) 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> )
<b>Mobility</b>	Not determined.
<b>Persistence and Degradability</b>	Not determined.
<b>Bioaccumulative Potential</b>	Not expected to bioaccumulate.
<b>Other Adverse Effects</b>	15-180 ppm bronopol will be present in this product. In anaerobic systems, bronopol at up to 15 ppm has no significant effect 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> (Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC)	<u>Hazard Code</u> : Not classified.
<b>Note for Disposal</b>	<u>Components making the waste hazardous</u> <u>Concentrations (%)</u> : Not required.
	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)				
UN No.	UN1760	Tremcard Reference No.	CEFIC TEC (R)- 80GC9-II+III	RIS Code
Transport Category	3	UK Hazchem EAC	2X	PCT312
ADR 2005 (International Road)	Class 8		ADR HIN 80	Labels
Proper Shipping Name	CORROSIVE LIQUID, N.O.S (contains phosphonobutane tricarboxylic acid)			
Limited Quantity Exemptions	Maximum quantity per inner receptacle is 3 kg. Maximum quantity per outer package is 30kg. Combination packs only.			
Special Requirements	Not required. Packing Group III			
IMDG 2004 (Sea)	Class 8		IMDG EMS F-A, S-B	
Proper Shipping Name	CORROSIVE LIQUID, N.O.S (contains phosphonobutane tricarboxylic acid)			
Limited Quantity Exemptions	Maximum quantity per inner receptacle is 5 kg. Maximum quantity per outer package is 30kg. Combination packs only.			
Special Requirements	Not required. Packing Group III			
Note for Transport	Local, State or National requirements may apply to the carriage of this product.			

15 REGULATORY INFORMATION (HEALTH AND SAFETY INFORMATION (SEE ALSO BOX 2))	
Safety Phrases	<p>S24 Avoid contact with skin.</p> <p>S35 This material and its container must be disposed of in a safe way.</p> <p>S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.</p> <p>S46 If swallowed, seek medical advice immediately and show this container or label.</p>
Additional Label Phrases	Not required.
Legislation	<p>Labelling is in accordance with UK regulations implementing the EC Directive 1999/45.</p> <p>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.</p> <p>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.</p>

16 OTHER INFORMATION AND INDICATION OF REVISIONS	
Packaging Information	A tighthead 12.5 litre, plastic bottle with a screw top.
Revisions	Changes have been made to the content of boxes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 06.
Risk phrase text (From box 3 - These refer to the ingredients only. See box 11 for the product risk phrases)	<p>R48 : Danger of serious damage to health by prolonged exposure.</p> <p>R20/22 : Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.</p> <p>R21/22 : Harmful in contact with skin and if swallowed.</p> <p>R36/37 : Irritating to eyes and respiratory system.</p> <p>R37/38 : Irritating to respiratory system and skin.</p> <p>R50,53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment</p> <p>R41 : Risk of serious damage to eyes.</p> <p>R50 : Very toxic to aquatic organisms</p> <p>R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed.</p> <p>R34 : Causes burns.</p> <p>R43 : May cause sensitisation by skin contact.</p>

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

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