

## Safety Data Sheet

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**REVISION (see box 16)**

Issue : 03 20 : 09 : 2006

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
<b>Product Name</b>	<b>CALMIC TYPE P FORMULATION – STANDARD</b>
<b>Description</b>	A clear, pale-yellow, perfumed liquid for use in the Calmic system to sanitise the surfaces and traps of urinals and toilets.
<b>Company</b>	Rentokil Initial Supplies, Webber Road, Knowsley Industrial Park, Liverpool, L33 7SR. For general enquiries telephone: +44 (0) 151 548 5050. For safety or regulatory enquiries telephone: + 44 (0) 1342 833022.

2 HAZARD IDENTIFICATION	
<b>Classification (Supply – Use) : In compliance with EC Directive 1999/45.</b>	
<b>C Corrosive</b>	R34 Causes burns. R22 Harmful if swallowed.
<b>N Dangerous for the environment</b>	R50 Very toxic to aquatic organisms.
<b>Adverse Physical, Chemical, Significant Human Health and Environmental Effects (See also box 11):</b>	
Ingestion may result in nausea, stomach pain, vomiting and severe irritation to the mouth, throat and digestive system. Ingestion of large amounts may result in convulsions and unconsciousness. Inhalation may cause drowsiness or dizziness. Causes burns to eyes, skin and respiratory tract.	
No other significant adverse effects expected under normal conditions of handling and use.	

3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)		
% w/w	Common*/Chemical Name, Elincs/Einecs & CAS No. of Ingredients	EC 1999/45 Classification
>25.0 ≤50.0	Quaternary ammonium compound*/ N,N-Didecyl-N,N-dimethyl ammonium chloride EINECS : 230-525-2 CAS : 7173-51-5	C : R34 R22
>2.5 ≤10.0	Isopropanol*/ Propan-2-ol EINECS : 200-661-7 CAS : 67-63-0	F : R11 Xi : R36 R67
>25.0 ≤50.0	Non-ionic surfactant* / alcohol ethoxylate EINECS : Not applicable. CAS : 68131-39-5	Xn : R22 : R41
≤0.3	Camphor* / boran-2-one EINECS : 200-945-0 CAS : 76-22-2	N : R50 Xn : R20 : R68/22

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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>	Thermal decomposition may produce toxic fumes of hydrogen chloride and oxides of nitrogen.

<b>6 ACCIDENTAL RELEASE MEASURES</b>	
<b>Personal Precautions (See also box 8)</b>	Wear suitable personal protective equipment.
<b>Environmental Precautions</b>	This product is classified as dangerous for the environment. Keep undiluted product away from drains, surface and ground water, and soil.
<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.

<b>8 EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	
<b>Exposure Standard - Directive EC/98/24 (1<sup>st</sup> IOELV Directive)</b>	Workplace Exposure Limit (WEL) for isopropanol is 999 mg/m <sup>3</sup> long-term exposure (8 hour Time Weighted Average) and 1250 mg/m <sup>3</sup> short-term exposure (15 minute reference period). WEL for camphor is 13 mg/m <sup>3</sup> long-term exposure (8 hour Time Weighted Average) and 19 mg/m <sup>3</sup> short-term exposure (15 minute reference period). Camphor is referred to as boran-2-one in Directive EC/98/24 (1 <sup>st</sup> IOELV Directive). Isopropanol is referred to as propan-2-ol in Directive EC/98/24 (1 <sup>st</sup> IOELV Directive).
<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 gloves.
<b>Skin Protection</b>	Suitable skin protection such as coveralls.
<b>Breathing Protection</b>	None necessary during normal handling and use.
<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, pale yellow perfumed liquid.		
<b>pH</b>	8.8 –9.6	<b>Solubility in Water</b>	Miscible.
<b>Density</b>	1.0 at 20°C	<b>Solubility in Other Solvents</b>	Not determined.
<b>Flash Point</b>	37°C	<b>Explosive Properties</b>	None.
<b>Flammability</b>	Non-flammable.	<b>Combustibility</b>	Non-combustible.
<b>Boiling Point/Range</b>	Starts at ca. 80°C	<b>Oxidising Properties</b>	None.
<b>Vapour Density</b>	Not applicable.	<b>Evaporation Rate</b>	Not determined.
<b>Vapour Pressure</b>	Not determined.	<b>Partition Coefficient</b>	Not applicable.
<b>Viscosity</b>	17.55 at 20°C	<b>Other Data</b>	None known.

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## 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 oxidising agents, copper and copper alloys.
<b>Hazardous Breakdown Products</b>	Thermal decomposition may produce toxic fumes of hydrogen chloride and oxides of nitrogen.

## 11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)



<b>Acute Toxicity</b>	Oral	For didecyldimethylammonium chloride: LD <sub>50</sub> (rat): 238 mg/kg.
	Inhalation	Vapours may cause drowsiness or dizziness.
	Dermal	For didecyldimethylammonium chloride: LD <sub>50</sub> (rat): 3342 mg/kg.
<b>Corrosivity/Irritation</b>	Skin	Causes burns.
	Eyes	Causes burns.
	Respiratory tract	Causes burns.
<b>Sensitisation</b>	Skin	This product does not contain any substances that are classified as sensitising in contact with skin above the lower limits of concentration as specified in EC Directive 1999/45.
	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>		Product contains ≤ 0.3% camphor, which may present a danger of very serious irreversible effects.

## 12 ECOLOGICAL INFORMATION

<b>General Information</b>	This product is classified as very toxic to aquatic organisms. 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 didecyldimethylammonium chloride: Fish LC <sub>50</sub> (96h): 1 mg/L (rainbow trout) Daphnia EC <sub>50</sub> (48h): 0.094 mg/L ( <i>Daphnia magna</i> ) Algae EC <sub>50</sub> (96h): 0.026 mg/L ( <i>Selenastrum sp.</i> ) Bacteria EC <sub>10</sub> (16h): 0.13 mg/L ( <i>Pseudomonas sp.</i> ) EC <sub>50</sub> (3h): 11 mg/L (activated sludge)
<b>Mobility</b>	Product is miscible in water, so may be transported considerable distances.
<b>Persistence and Degradability</b>	For didecyldimethylammonium chloride: OECD Confirmatory Test for biodegradability: 91% (24 – 70 days). The surfactant contained in the 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.
<b>Bioaccumulative Potential</b>	This product is not expected to bioaccumulate.
<b>Other Adverse Effects</b>	None known.

## 13 DISPOSAL CONSIDERATIONS

<b>Disposal of Waste / Containers</b>	Under normal circumstances, waste / empty containers will be disposed of by Rentokil Initial.
<b>Classification</b> (Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC))	<b>Hazard Code:</b> H3B – Flammable, H5 – Harmful, H8 – Corrosive, H14 – Ecotoxic <b>Components making the waste hazardous</b> <b>Concentrations (%):</b> Didecyldimethylammonium chloride      >25.0 ≤50.0 Alcohol ethoxylate      >25.0 ≤50.0 Propan-2-ol      >2.5 ≤10.0
<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)				
UN No.	UN1760.	Tremcard Reference No.	CEFIC TEC (R)- 80G20	RIS Code
Transport Category	2	UK Hazchem EAC	2X	
ADR 2005 (International Road) Proper Shipping Name	Class 8 ADR HIN 80. CORROSIVE LIQUID N.O.S (Contains n, n-didecyl- n, n-dimethyl ammonium chloride).			Labels 
Limited Quantity Exemptions	Maximum quantity per inner receptacle is 1 L. Maximum quantity per outer package is 30kg. Combination packs only.			
Special Requirements	Not required. Packing Group II			
IMDG 2004 (Sea) Proper Shipping Name	Class 8 IMDG EMS F-A, S-F. CORROSIVE LIQUID N.O.S (Contains n, n-didecyl- n, n-dimethyl ammonium chloride).			
Limited Quantity Exemptions	Maximum quantity per inner receptacle is 1 L. Maximum quantity per outer package is 30kg. Combination packs only.			
Special Requirements	Not required. Packing Group II			
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	S21 When using, do not smoke. S26/28 In case of contact with eyes or skin, rinse immediately with plenty of water. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). S60 This material and its container must be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions / safety data sheet.
Additional Label Phrases	Not required.
Legislation	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 followed where appropriate.

16 Other Information and indication of revisions	
Packaging Information	A white, UN approved, 5 litre, plastic jerrican with a screw top. Supplied in an outer cardboard box.
Revisions	Changes have been made to the content of boxes 1, 3, 8, 9, 11, 12, 14 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 02.
Risk phrase text (From box 3 - These refer to the ingredients only. See box 2 for the product risk phrases)	R11 : Highly flammable. R20 : Harmful by inhalation. R22 : Harmful if swallowed. R34 : Causes burns. R36 : Irritating to eyes. R41 : Risk of serious damage to eyes. R50 : Very toxic to aquatic organisms. R67 : Vapours may cause drowsiness and dizziness R68/22 : Harmful: possible risk of irreversible effects if swallowed.

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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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Telephone: +44 (0) 1342 833022 Fax: +44 (0) 1342 836180 Web: [www.ri-research.com](http://www.ri-research.com)