

**Issue Date:** 20/12/2002    **Revision Number:** 2

**Document Number:** 01-005-107

**Material/Trade Name:** RiteLok RT38

**1 – Identification of the Preparation and Company \***

<b>Material/Trade Name</b>	: RiteLok RT38
<b>Material Type</b>	: Anaerobic retainer based on (meth)acrylates
<b>Company</b>	: Chemence Limited
<b>Address</b>	: Princewood Road Corby Northants NN17 4XD
<b>Telephone</b>	: 01536 402600
<b>Fax</b>	: 01536 400266
<b>Emergency Telephone</b>	: 01536 402600

**2 – Composition/Information on Ingredients \***

<b>Substance</b>		<b>% Wt.</b>	<b>CAS No.</b>	<b>EC No.</b>
Aliphatic urethane acrylate	Xi:R36/38	25 - 50	proprietary	proprietary
2-Hydroxypropylmethacrylate	Xi:R36 R43	5 - 15	923-26-2	213-090-3
Trimethylolpropane triacrylate	Xi:R36/38 R43	1 - 10	15625-89-5	239-701-3
Acrylic acid	R10 Xn:R20/21/22 C:R35 N:R50	1 - 5	79-10-7	201-177-9
Cumene hydroperoxide	O:R7 T:R23 Xn:R21/22, 48/20/22 C:R34 N:51,53	1 - 3	80-15-9	201-254-7
N,N-Dimethyl-p-toluidine	T:R23/24/25 R33 R52/53	0.10 - 0.95	99-97-8	202-805-4
1-Acetyl-2-phenylhydrazine	Xn:R20/21/22 R40 Xi:R36/37/38 R43	0.10 - 0.95	114-83-0	204-055-3
4-Methoxyphenol	Xn:R22 Xi:R36 R43	0.10 - 0.95	150-76-5	205-769-8
Cumene	R10 Xn:R65 Xi:R37 N:R51,53	0.1 - 0.5	98-82-8	202-704-5

**3 - Hazards Identification \***
**RISK OF SERIOUS DAMAGE TO EYES**
**IRRITATING TO RESPIRATORY SYSTEM AND SKIN**
**MAY CAUSE SENSITISATION BY SKIN CONTACT**

Avoid contact with skin and eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable gloves and eye/face protection.

Prolonged or repeated over-exposure may lead to sensitising effects and/or dermatitis in sensitive individuals.

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#### 4 - First-aid Measures

<b>Inhalation:</b>	Remove to fresh air and rest. If not breathing, give artificial respiration. If recovery is not rapid call for prompt medical attention.
<b>Eyes:</b>	Immediately irrigate with water for at least 15 minutes. Take care not to wash chemical from one eye to another. Get immediate medical attention.
<b>Skin:</b>	Remove contaminated clothing and shoes. Rinse immediately with plenty of water and then wash with soap/cleanser and rinse with water. If irritation persists, obtain medical attention
<b>Ingestion:</b>	Do not induce vomiting. Give plenty of water to drink. Beware of aspiration if vomiting occurs - seek medical attention immediately.

#### 5 - Fire-fighting Measures \*

<b>Suitable Extinguishers:</b>	Alcohol resistant foam                      Dry powder                      Carbon dioxide
<b>Unsuitable Extinguishers:</b>	Direct water jets
<b>Hazardous Decomposition:</b>	Possible risk of explosion. Toxic fumes are produced in fire – CO, CO <sub>2</sub> , oxides of nitrogen possibly evolved.
<b>Special Procedures:</b>	Do not breathe decomposition products and fumes. Use approved self-contained breathing apparatus. Wear fire retardant clothing. Wear eye protection. Use water spray to cool containers. Prevent runoff from fire control from entering waterways. Large fires should only be dealt with by trained personnel.

#### 6 - Accidental Release Measures \*

<b>Exposure Controls:</b>	Ventilate area. Evacuate all personnel. Use barriers to prevent unauthorised entry into contaminated areas. Do not allow spill to enter drains and watercourses.
<b>Personal Protection:</b>	Wear suitable respiratory protection for large spillages and in confined spaces, e.g. EN405 FFA2 or EN140 A2. Wear polythene gloves Wear chemically resistant overalls and boots Use eye protection such as goggles to BS EN 166 Chemical Grade.
<b>Disposal Considerations:</b>	Absorb in inert material such as sand or absorbent granules Scoop up and place in plastic container to await transfer Dispose in accordance with local regulations

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## 7 - Handling and Storage \*

<b>Handling:</b>	Avoid skin and eye contact. Avoid inhalation of vapour - ensure adequate ventilation and/or use local extraction. Wear eye goggles, such to BS EN 166 Chemical Grade. Ensure eye-wash facilities/station are close to hand. Wear gloves – polythene, neoprene or nitrile. Do not use PVC or latex gloves. If handling large quantities, wear suitable protective clothing.
<b>Storage:</b>	Store in tightly closed, labelled containers. Can be stored in LDPE containers. Do not allow to contact or store in aluminium, mild steel, rusty steel, copper (or alloys of) or tin vessels. Store in a cool, dry, well-ventilated area out of direct sunlight. Keep away from sources of ignition.

## 8 - Exposure Controls/Personal Protection \*

<b>Occupational Exposure Limit:</b>	OES for acrylic acid is 10ppm (30mg/m <sup>3</sup> ) 8hr TWA and 20ppm (60mg/m <sup>3</sup> ) 15min STEL (EH40/2002).
	Wear gloves – polythene, neoprene or nitrile. Do not use PVC or latex gloves. Wear eye goggles, such as rated to BS EN 166. Ensure eye-wash facilities/station are close to hand. After skin contact, wash immediately with plenty of water. If handling large quantities, wear suitable protective clothing. Use in well ventilated areas. Use local exhaust ventilation if exposed for long periods. If excessive inhalation in a poorly ventilated area is likely then use a respirator with filter type A.

## 9 - Physical and Chemical Properties \*

<b>Appearance</b>	: Almost clear, green liquid
<b>Odour</b>	: Slightly sweet, characteristic
<b>pH</b>	: ~3-5
<b>Boiling point/range</b>	: Not applicable
<b>Melting point/range</b>	: Not applicable
<b>Flash point</b>	: >100°C
<b>Flammability</b>	: Non-Flammable
<b>Explosive properties</b>	: Not applicable
<b>Oxidising properties</b>	: None
<b>Vapour pressure</b>	: ~0.1mmHg at 20°C
<b>Relative density</b>	: ~1.08
<b>Solubility in water</b>	: Low solubility
<b>Solubility in solvents</b>	: Miscible in organic solvents, e.g. acetone
<b>Vapour density</b>	: Not established
<b>Partition coefficient, log Pow</b>	: Not established (but likely to be <3)
<b>Viscosity</b>	: ~2,500cPs
<b>Evaporation rate (Bu Ac = 1)</b>	: Not established

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## 10 - Stability and Reactivity \*

<b>Conditions to avoid:</b>	Stable at normal temperatures. Elevated temperatures, direct sunlight, sources of ignition, low oxygen environments. Hazardous exothermic polymerisation can occur if exposed to elevated temperatures for periods of time. Air space/oxygen above the product is vital to keep formulatory inhibitors active.
<b>Materials to avoid:</b>	Oxidising agents, free-radical initiators, reducing metal oxides. Do not allow to contact or store in aluminium, mild steel, rusty steel, copper (or alloys of) or tin vessels.
<b>Hazardous decomposition products:</b>	Combustion/exothermic polymerisation will generate oxides of carbon, acrid smoke and irritating fumes.

## 11 - Toxicological Information \*

<b>Acute toxicity:</b>	<u>Oral</u> – Expected to be very low - LD50(rat) is likely to be in the range 5,000-10,000mg/kg . <u>Inhalation</u> – Expected to be low. <u>Skin</u> – Expected to be low – LD50 (rabbit) estimated to be >3,000mg/kg
<b>Corrosivity/irritation:</b>	<u>Eyes</u> – Risk of serious damage. Causes severe irritation. Conjunctival irritation and profuse eye-watering. Possible corneal damage. <u>Skin</u> – Irritation and redness at site of contact. Prolonged or repeated contact may lead to dermatitis. <u>Respiratory Tract</u> - Mild irritation of nose and throat.
<b>Sensitisation:</b>	Skin sensitisation possible.
<b>Repeated-dose toxicity:</b>	Not tested, but not anticipated
<b>Mutagenicity:</b>	Not tested, but not anticipated
<b>Carcinogenicity:</b>	Not tested, but not anticipated
<b>Reproductive Toxicity:</b>	Not tested, but not anticipated

## 12 - Ecological Information \*

Not classified as Dangerous for the Environment by the Conventional Method as detailed in Schedule 3, Parts I and III of CHIP3 Regulations.

**Ecotoxicity:** Considered to be low - due to probable biodegradability (see below) and LogPow expected to be <3.

**Bioaccumulative potential:** Expected to be low.

**Persistence:** Considered to be biodegradable – testing of one major (non-declarable) component gave a biodegradability result of 85% after 28 days.

**Mobility:** Considered to be relatively low due to low water solubility.

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### 13 -Disposal Considerations \*

Do not discharge into drains or watercourses.

Dispose of product through properly licensed contractors under national and local legislation. Product residues can be cleaned out of containers. Dispose of in accordance with the Special Waste Regulations 1996.

Alternatively, product can be polymerised using RiteLok AC64 activator (care should be taken if polymerising a large quantity of product due to exothermic reaction). Hardened product can be disposed of as chemical waste by incineration or licensed contractors.

Clean containers can be disposed of by landfill or incineration or possibly recycled.

### 14 -Transport Information

<b>UN No:</b>	None		
<b>IMDG:</b>	-	<b>Packing Group:</b>	-
<b>IATA/ICAO:</b>	-	<b>Packing Group:</b>	-
<b>ADR/RID:</b>	-	<b>Item:</b>	- <b>Flash Point:</b> -
<b>Transport Name (UK Road):</b>	None – not hazardous for transport.		

### 15 - Regulatory Information \*

#### Symbol(s) & Indication(s) of Danger



**Label Phrases**      Contains 2-hydroxypropyl methacrylate and trimethylolpropane triacrylate.

#### Risk & Safety Phrases

R41	Risk of serious damage to eyes
R37/38	Irritating to respiratory system and skin
R43	May cause sensitisation by skin contact
S24/25	Avoid contact with skin and eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39	Wear suitable gloves and eye/face protection.

#### Other Relevant Regulations and Publications

Health & Safety at Work etc. Act 1974	Control of Substances Hazardous to Health Regulations 1994
COSHH Essentials	EH40/ series – Occupational Exposure Limits
Environmental Protection Act 1990	Special Waste Regulations 1996

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**16 - Other Information \***

The \* symbol in a section denotes that there has been a change in information from the previous version of this safety data sheet.

Risk phrases referred to in section 2:-

R7	May cause fire
R10	Flammable
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed
R33	Danger of cumulative effects
R34	Causes burns
R35	Causes severe burns
R36/37/38	Irritating to eyes, respiratory system and skin
R40	Limited evidence of a carcinogenic effect
R43	May cause sensitisation by skin contact
R48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R50	Very toxic to aquatic organisms
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed

This Safety Data Sheet is compiled with reference to The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP3), which implement the Council Directives 67/548/EC (The Dangerous Substances Directive) and 99/45/EC (The Dangerous Preparations Directive), and subsequent amending regulations, up to and including 2001/59/EC, which implements the 28<sup>th</sup> ATP of 67/548/EEC; and 2001/60/EC, which implements the 1<sup>st</sup> ATP of 99/45/EC; and also the Safety Data Sheet Directive 91/155/EC, as amended for the 2<sup>nd</sup> time by 2001/58/EC.

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