

## SAFETY DATA SHEET

**Product Name** REFRESH-CITRUS

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier name** LIBERATO BULK CHEMICAL & REPACK SPECIALISTS PTY. LTD.  
**Address** 1 Kalinga Way, Landsdale, WA, 6065, AUSTRALIA  
**Telephone** 1300 377 696  
**Emergency** 1300 377 696  
**Email** [sales@liberato.com.au](mailto:sales@liberato.com.au)  
**Web site** <http://www.liberato.com.au>  
**Synonym(s)** REFRESH CITRUS  
**Use(s)** CLEANING AGENT • DISINFECTANT  
**SDS date** 05 November 2013

### 2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

**RISK PHRASES**

None allocated

**SAFETY PHRASES**

None allocated

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<b>UN number</b>	None Allocated	<b>DG class</b>	None Allocated
<b>Packing group</b>	None Allocated	<b>Subsidiary risk(s)</b>	None Allocated
<b>Hazchem code</b>	None Allocated		

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Identification	Classification	Content
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	10 to 30%
BENZALKONIUM CHLORIDE	CAS: 8001-54-5 EC: 616-786-9	Not Available	<5%
WATER	CAS: 7732-18-5 EC: 231-791-2	Not Available	Remainder

### 4. FIRST AID MEASURES

**Eye** If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation** If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion** For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**Advice to doctor** Treat symptomatically.

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## 5. FIRE FIGHTING MEASURES

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<b>Flammability</b>	Non flammable. May evolve toxic gases (carbon/ nitrogen oxides, ammonia, chlorides, hydrocarbons) when heated to decomposition.
<b>Fire and explosion</b>	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
<b>Extinguishing</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Hazchem code</b>	None Allocated

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions</b>	Wear Personal Protective Equipment (PPE) as detailed in Section 8 of this SDS.
<b>Environmental precautions</b>	Prevent product from entering drains and waterways.
<b>Methods of cleaning up</b>	Contain spillage, then cover/absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.
<b>References</b>	See Sections 8 and 13 for exposure controls and disposal.

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## 7. STORAGE AND HANDLING

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<b>Storage</b>	Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills.
<b>Handling</b>	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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<b>Exposure standards</b>	No exposure standard(s) allocated.
<b>Biological limits</b>	No biological limit allocated.
<b>Engineering controls</b>	Avoid inhalation. Use in well ventilated areas.
<b>PPE</b>	
<b>Eye / Face</b>	Wear splash-proof goggles.
<b>Hands</b>	Wear PVC or rubber gloves.
<b>Body</b>	When using large quantities or where heavy contamination is likely, wear coveralls.
<b>Respiratory</b>	Not required under normal conditions of use.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	YELLOW LIQUID
<b>Odour</b>	CITRUS ODOUR
<b>Flammability</b>	NON FLAMMABLE
<b>Flash point</b>	NOT RELEVANT
<b>Boiling point</b>	> 100°C
<b>Melting point</b>	NOT AVAILABLE
<b>Evaporation rate</b>	AS FOR WATER
<b>pH</b>	7.0 to 8.0
<b>Vapour density</b>	NOT AVAILABLE

**Product Name REFRESH-CITRUS**

<b>Specific gravity</b>	1.0
<b>Solubility (water)</b>	SOLUBLE
<b>Vapour pressure</b>	18 mm Hg @ 20°C
<b>Upper explosion limit</b>	NOT RELEVANT
<b>Lower explosion limit</b>	NOT RELEVANT
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE
<b>% Volatiles</b>	> 60 % (Water)

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**10. STABILITY AND REACTIVITY**

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<b>Chemical stability</b>	Stable under recommended conditions of storage.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources.
<b>Material to avoid</b>	Incompatible with oxidising agents (eg. hypochlorites), anionic detergents (eg. soaps), heat and ignition sources.
<b>Hazardous Decomposition Products</b>	May evolve toxic gases (carbon/ nitrogen oxides, ammonia, chlorides, hydrocarbons) when heated to decomposition.
<b>Hazardous Reactions</b>	Polymerization is not expected to occur.

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**11. TOXICOLOGICAL INFORMATION**

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<b>Health Hazard Summary</b>	Low toxicity - low irritant. Use safe work practices to avoid eye or skin contact and inhalation. Upon dilution, the potential for adverse health effects may be reduced. Individuals with pre-existing respiratory impairment (eg asthmatics) or skin sensitivities may be more susceptible to adverse health effects.
<b>Eye</b>	Low to moderate irritant. Contact may result in irritation, lacrimation, pain and redness.
<b>Inhalation</b>	Low to moderate irritant. Over exposure to vapours may result in irritation of the nose and throat, coughing, nausea and headache. Occupational exposure to quaternary ammonium compounds has been reported to cause asthma, although rare.
<b>Skin</b>	Low irritant. Prolonged or repeated contact may result in mild irritation, rash and dermatitis.
<b>Ingestion</b>	Low toxicity. Ingestion of large quantities may result in nausea, vomiting and gastrointestinal irritation.
<b>Toxicity data</b>	<b>BENZALKONIUM CHLORIDE (8001-54-5)</b> LD50 (ingestion) 240 mg/kg (rat) LD50 (intraperitoneal) 14.5 mg/kg (rat) LD50 (intravenous) 13.9 mg/kg (rat) LD50 (subcutaneous) 64 mg/kg (mouse) TDLo (ingestion) 266 mg/kg (woman; oesophogas changes, diarrhoea)

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**12. ECOLOGICAL INFORMATION**

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<b>Toxicity</b>	No information provided.
<b>Persistence and degradability</b>	No information provided.
<b>Bioaccumulative potential</b>	No information provided.
<b>Mobility in soil</b>	No information provided.
<b>Other adverse effects</b>	Benzalkonium chloride derivatives/quaternary ammonium compounds are commonly used as disinfectants, indicating toxicity to microorganisms.

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**13. DISPOSAL CONSIDERATIONS**

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<b>Waste disposal</b>	For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. For larger amounts, contact the manufacturer for additional information. Prevent contamination
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of drains or waterways as aquatic life may be threatened and environmental damage may result.

Legislation Dispose of in accordance with relevant local legislation.

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## 14. TRANSPORT INFORMATION

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NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
UN number	None Allocated	None Allocated	None Allocated
Proper shipping name	None Allocated	None Allocated	None Allocated
DG class/ Division	None Allocated	None Allocated	None Allocated
Subsidiary risk(s)	None Allocated	None Allocated	None Allocated
Packing group	None Allocated	None Allocated	None Allocated
Hazchem code	None Allocated		

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## 15. REGULATORY INFORMATION

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**Poison schedule** A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

**Inventory Listing(s)** **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**  
All components are listed on AICS, or are exempt.

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## 16. OTHER INFORMATION

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**Additional information** BENZALKONIUM CHLORIDE: Benzalkonium chloride can be a severe eye & skin irritant & corrosive. Contact with concentrated solutions can cause deep injury and ulceration (Wahlberg, 1985). A 0.1% concentration will cause mild discomfort to the eye. Ingestion may cause a burning pain in the mouth, throat and abdomen, salivation, low blood pressure, CNS depression, excitement, confusion and weakness, laboured breathing & cyanosis (blue skin due to lack of oxygen in blood) or circulatory shock. When used in low concentrations there is little local or systemic toxicity.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:  
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:  
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

**Revision history**

Revision	Description
1.0	Initial SDS Creation

**Report status**

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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**Revision: 1**  
**SDS Date: 05 November 2013**

**End of SDS**