

## Material Safety Data Sheet

PRODUCT NAME **BRAVO**

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name** JOHNSONDIVERSEY AUSTRALIA PTY LTD  
**Address** 29 Chifley St, Smithfield, NSW, AUSTRALIA, 2164  
**Telephone** (02) 9757 0300  
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**Emergency** 1800 033 111 (24 hrs)  
**Email** aust.receptionist@johnsondiversey.com  
**Web Site** http://www.johnsondiversey.com

**Synonym(s)** HH15405 BRAVO 12X750ML  
**Use(s)** CHLORINATED CLEANER

### 2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA IN THE HS (MIN DEG OF HAZ) REGS 2001

NOT CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO NZS 5433

<b>UN No.</b>	None Allocated	<b>Hazchem Code</b>	None Allocated	<b>Pkg Group</b>	None Allocated
<b>DG Class</b>	None Allocated	<b>Subsidiary Risk(s)</b>	None Allocated	<b>EPG</b>	None Allocated

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
CALCIUM HYPOCHLORITE	Cl <sub>2</sub> -O <sub>2</sub> .Ca	<1%	7778-54-3
CALCIUM CARBONATE	Ca-CO <sub>3</sub>	30-60%	1317-65-3
WATER	H <sub>2</sub> O	30-60%	7732-18-5
ALKALINE SALTS	Not Available	<10%	Not Available
DISPERSANT	Not Available	<10%	Not Available
SURFACTANT	Not Available	<10%	Not Available

### 4. FIRST AID MEASURES

**Eye** Hold eyelids apart and flush continuously with water. Continue until advised to stop by the Poisons Information Centre, a doctor, or for at least 15 minutes. Keep patient calm.

**Inhalation** If over exposure occurs leave exposure area immediately. If irritation persists, seek medical attention.

**Skin** Remove contaminated clothing and gently flush affected areas with water. Continue to flush with water until skin no longer feels soapy. Seek medical attention. Launder clothing before reuse.

**Ingestion** DO NOT induce vomiting. Immediately wash out mouth with water, and then give water to drink. Seek medical attention.

**Advice to Doctor** Treat symptomatically

**First Aid Facilities** Eye wash facilities and safety shower should be available.

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## 5. FIRE FIGHTING MEASURES

<b>Flammability</b>	Non flammable. No fire or explosion hazard exists.
<b>Fire and Explosion</b>	Non flammable. Evacuate area and contact emergency services. 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>	Non flammable. Prevent contamination of drains or waterways, absorb runoff with sand or similar.
<b>Hazchem Code</b>	None Allocated

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spillage</b>	If spilt, absorb with sand or similar. Wear splash-proof goggles and PVC/rubber gloves. For large amounts, wear coveralls and rubber boots. Collect and place in sealable containers for disposal. Caution: Spill site may be slippery.
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## 7. STORAGE AND HANDLING

<b>Storage</b>	Store in cool, dry, well ventilated area, removed from direct sunlight, oxidising agents (eg. hypochlorites), acids 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.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Ventilation</b>	Ensure adequate natural ventilation. Maintain vapour levels below the recommended exposure standard.
<b>Exposure Standards</b>	CALCIUM HYPOCHLORITE (7778-54-3) ES-STEL : 3 ppm (9 mg/m <sup>3</sup> ) (as Chlorine) ES-TWA: 1 ppm (3 mg/m <sup>3</sup> ) (as Chlorine) CALCIUM CARBONATE (1317-65-3) ES-TWA: 10 mg/m <sup>3</sup> WES-TWA: 10 mg/m <sup>3</sup>
<b>PPE</b>	Wear splash-proof goggles and rubber or PVC gloves. When using large quantities or where heavy contamination is likely, wear coveralls.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	WHITE LIQUID	<b>Solubility (water)</b>	DISPERSIBLE
<b>Odour</b>	CHARACTERISTIC ODOUR	<b>Specific Gravity</b>	1.45
<b>pH</b>	12.5 - 12.9	<b>% Volatiles</b>	NOT AVAILABLE
<b>Vapour Pressure</b>	NOT AVAILABLE	<b>Flammability</b>	NON FLAMMABLE
<b>Vapour Density</b>	NOT AVAILABLE	<b>Flash Point</b>	NOT RELEVANT
<b>Melting Point</b>	NOT AVAILABLE	<b>Upper Explosion Limit</b>	NOT RELEVANT
<b>Boiling Point</b>	NOT AVAILABLE	<b>Lower Explosion Limit</b>	NOT RELEVANT
<b>Evaporation Rate</b>	NOT AVAILABLE	<b>Autoignition Temperature</b>	NOT AVAILABLE

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Incompatible with oxidising agents (eg. peroxides) and acids (eg. hydrochloric acid).
<b>Decomposition Products</b>	May evolve toxic gases if heated to decomposition.

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## 11. TOXICOLOGICAL INFORMATION

<b>Health Hazard Summary</b>	This product may only present a hazard with direct eye contact, prolonged and repeated skin contact or with vapour inhalation at high levels. Chronic effects are not anticipated.
<b>Eye</b>	Exposure may result in lacrimation, irritation, pain, redness, conjunctivitis and possible corneal burns with prolonged contact.
<b>Inhalation</b>	Over exposure may result in mucous membrane irritation of the nose and throat with coughing.
<b>Skin</b>	Contact may result in irritation, itching, dermatitis and possible burns.
<b>Ingestion</b>	With large doses ingestion may result in nausea, vomiting and gastrointestinal irritation.
<b>Toxicity Data</b>	CALCIUM HYPOCHLORITE (7778-54-3) LD50 (Ingestion): 850 mg/kg [rat]

## 12. ECOLOGICAL INFORMATION

<b>Environment</b>	Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.
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## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal</b>	For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

**NOT CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO NZS 5433**

<b>Shipping Name</b>	None Allocated				
<b>UN No.</b>	None Allocated	<b>DG Class</b>	None Allocated	<b>Subsidiary Risk(s)</b>	None Allocated
<b>Pkg Group</b>	None Allocated	<b>Hazchem Code</b>	None Allocated	<b>EPG</b>	None Allocated

## 15. REGULATORY INFORMATION

<b>AICS</b>	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).
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## 16. OTHER INFORMATION

<b>Additional Information</b>	<p>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.</p>
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EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

### ABBREVIATIONS:

mg/m<sup>3</sup> - Milligrams per cubic metre

ppm - Parts Per Million

TWA/ES - Time Weighted Average or Exposure Standard.

CNS - Central Nervous System

NOS - Not Otherwise Specified

pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline.

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

M - moles per litre, a unit of concentration.

IARC - International Agency for Research on Cancer.

### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert 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:

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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 Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**Report Status**

This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Material Safety Data Sheet ('MSDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer 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.

While RMT has taken all due care to include accurate and up-to-date information in this MSDS, 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 MSDS.

**Prepared By**

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**End of Report**