

# GK Concentrate™

## Product description:

GK Concentrate™ is a premium water-based disinfectant with broad spectrum bactericidal action that kills **99.99999% of bacteria**. With a multi-action formula, it cleans and disinfects all surfaces, leaving a floral fragrance that refreshes as it protects. GK Concentrate™ can also be used on fabrics.

## Product features:

- ✓ Light detergent action
- ✓ Works against mould and mildew
- ✓ Sanitises laundry
- ✓ Destroys bad odour at source
- ✓ Safe for daily use
- ✓ Refreshing floral fragrance



## Effective against:

Gram-negative bacteria (P. Aeruginosa)  
Gram-positive bacteria (Staph. Aureus)  
Mould & mildew

## Application for use:



## Available sizes:



2L



5L

Made in Singapore by



[www.gk-germkiller.com](http://www.gk-germkiller.com)

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# TEST REPORT: 719184272-CHM10-LYP

Date: 20 SEP 2010

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Client's Ref: -

Email: Yin-Pheng.LEONG@tuv-sud-psb.sg

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PSB Singapore

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Add value.

## SUBJECT

Bactericidal Activity Test

## CLIENT

Vance Chemicals Pte Ltd  
No. 24 Gul Lane  
Singapore 629418

Attn : Luo Nathan

## SAMPLE SUBMISSION DATE / TEST DATE

03 Sep 2010 / 09 Sep 2010

## DESCRIPTION OF SAMPLE

One sample of disinfectant as follows:

Product Name
GK Concentrate

## METHOD OF TEST

BS EN 1040 : 2005

"Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of basic bactericidal activity of chemical disinfectants and antiseptics – Test method and requirements (Phase 1)".

The test microorganisms used were :

*Staphylococcus aureus* (ATCC 6538)  
*Pseudomonas aeruginosa* (ATCC 15442)



Laboratory:  
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**TÜV®**



LA-2007-0380-A  
LA-2007-0380-A-1  
LA-2007-0381-F  
LA-2007-0382-B  
LA-2007-0383-G  
LA-2007-0384-G  
LA-2007-0385-E  
LA-2007-0386-C

The results reported herein have been performed in accordance with the laboratory's terms of accreditation under the Singapore Accreditation Council - Singapore Laboratory Accreditation Scheme. Tests/Calibrations marked "Not SAC-SINGLAS Accredited" in this Report are not included in the SAC-SINGLAS Accreditation Schedule for our laboratory.

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20 SEP 2010



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**RESULTS**

Product Name : "GK Concentrate"

Test Microorganism : *Staphylococcus aureus* (ATCC 6358)

Dilution / Contact Time	Initial Count of Test Microorganism per ml of Test Mixture		Count of Surviving Test Microorganism per ml		Log Reduction	Percentage Kill of Test Microorganism
	CFU per ml	Log <sub>10</sub>	CFU per ml	Log <sub>10</sub>		
<b>1:20</b> 5 Minutes	96 000 000	8.0	Less than 10	Less than 1	More than 7.0	99.999990
<b>1:40</b> 5 Minutes	96 000 000	8.0	Less than 10	Less than 1	More than 7.0	99.999990
<b>1:80</b> 5 Minutes	96 000 000	8.0	Less than 10	Less than 1	More than 7.0	99.999990

Test Microorganism : *Pseudomonas aeruginosa* (ATCC 15442)

Dilution / Contact Time	Initial Count of Test Microorganism per ml of Test Mixture		Count of Surviving Test Microorganism per ml		Log Reduction	Percentage Kill of Test Microorganism
	CFU per ml	Log <sub>10</sub>	CFU per ml	Log <sub>10</sub>		
<b>1:20</b> 5 Minutes	87 000 000	7.9	Less than 10	Less than 1	More than 6.9	99.999990
<b>1:40</b> 5 Minutes	87 000 000	7.9	Less than 10	Less than 1	More than 6.9	99.999990
<b>1:80</b> 5 Minutes	87 000 000	7.9	Less than 10	Less than 1	More than 6.9	99.999990

**TEST REPORT: 719184272-CHM10-LYP**  
20 SEP 2010



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Notes :

CFU : Colony Forming Unit

Remarks :

The product shall be deemed to have passed the test if it demonstrates a 5 Log reduction or more (at least >99.999% kill) in viability within 5 minutes or less under the conditions defined by this test when the test organisms are *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

This test method evaluates the basic bactericidal activity of chemical disinfectants with no specific application. It does not evaluate the activity of a product for an intended use. More specific test methods are used for further assessment of the efficacy of chemical disinfectants and antiseptics for a defined purpose.

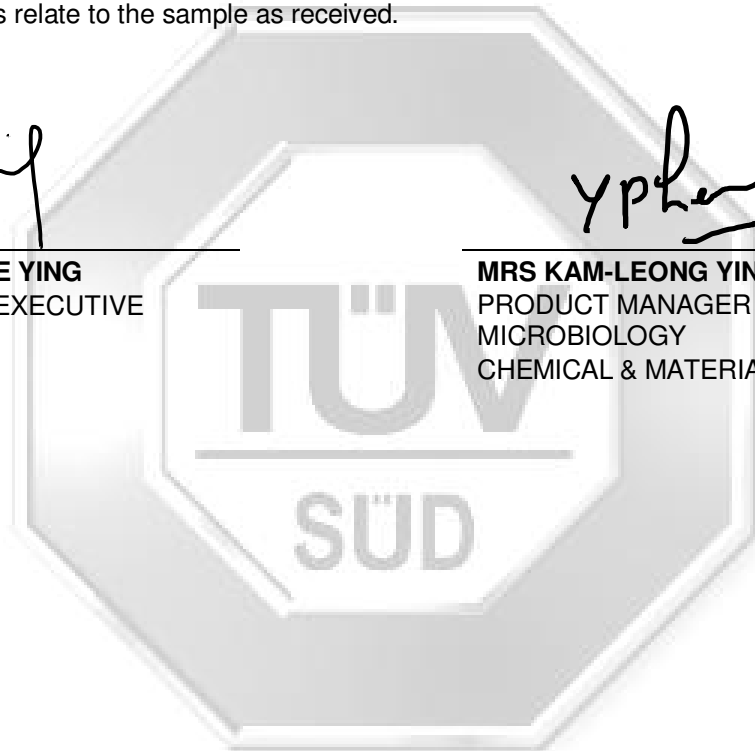
The above test results relate to the sample as received.

Handwritten signature of MS AW HWEE YING in black ink.

**MS AW HWEE YING**  
TECHNICAL EXECUTIVE

Handwritten signature of MRS KAM-LEONG YIN PHENG in black ink.

**MRS KAM-LEONG YIN PHENG**  
PRODUCT MANAGER  
MICROBIOLOGY  
CHEMICAL & MATERIALS



**TEST REPORT: 719184272-CHM10-LYP**  
20 SEP 2010



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March 2010



# Safety Data Sheet

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Name/Identifier** GK Concentrate™

**Product Code** DG8312(4)

**Product Use** Actively removes dirt for multipurpose cleaning

**Company Information** Vance Chemicals Pte Ltd  
No.24 Gul Lane  
Singapore 629418  
+65 6863 0863  
[msds@mr-mckenic.com](mailto:msds@mr-mckenic.com)

**Emergency Contact** +65 9299 8024

## SECTION 2 HAZARDS IDENTIFICATION

### GHS CLASSIFICATION

Health		Environmental	Physical
Skin irritation	Category 2	Not Classified	Not Classified
Eye irritation	Category 2		

### GHS LABEL:



**SIGNAL WORD:** Warning

### Hazard Statements:

H315 Causes skin irritation  
H320 Causes eye irritation

### Prevention Precautionary Statements:

P264 Wash face, hands and any exposed skin thoroughly after handling.  
P280 Wear eye protection/face protection/protective gloves.

### Response Precautionary Statements:

P362 Take off contaminated clothing and wash before use.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

### Disposal:

P501 Dispose of contents/container to local/regional/national/international regulations



# Safety Data Sheet

## SECTION 3 COMPOSITIONS / INFORMATION ON INGREDIENTS

Chemical Identity	CAS #	EINECS #	Weight %
Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides	68424-95-3	270-331-5	<5
Non-hazardous materials	Mixture	-	>95

## SECTION 4 FIRST AID MEASURES

### Eye contact

Immediately flush eyes with large amounts of water for at least 15 minutes while holding the eyelids open. Get medical attention.

### Skin contact

Remove contaminated clothing and shoes. Flush exposed area with large amount of water for at least 15 minutes followed by washing with soap. Get medical attention.

### Inhalation

Remove to open area for fresh air. If breathing is difficult, give oxygen. Get medical attention.

### Ingestion

If swallowed, do not induce vomiting without medical advice. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspirations. Get medical attention.

## SECTION 5 FIRE FIGHTING MEASURES

### Suitable Extinguishing Media

Use water spray, carbon dioxide, dry chemical powder, fog or foam to cool fire exposed surfaces and to protect personnel.

### Unsuitable Extinguishing Media

Do not use water in a jet.

### Specific Hazards Arising from the Chemical

Decomposition under fire conditions will generate toxic gas.

### Protection for Fire-fighters

Evacuate personnel to safe areas. Intervention only by capable personnel who are trained and aware of the hazards of the product. In the event of fire, wear self-contained breathing apparatus. When intervention in close proximity wear acid resistant over suit. Clean contaminated surface thoroughly.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal Precautions and Protective Equipment

Refer to protective measures listed in sections 7 and 8. Prevent further leakage or spillage if safe to do so. Keep away from open flames, hot surfaces and sources of ignition. Keep away from incompatible products. Isolate the area. Cover the spreading liquid with foam in order to slow down the evaporation. Ventilate the area.





# Safety Data Sheet

## Environmental Precautions

Prevent discharges into the environment (sewers, rivers, soils). Immediately notify the appropriate authorities in case of discharge.

## Method for Cleaning Up & Containment

If possible, dam large quantities of liquid with sand or earth. Collect the product with suitable means. Place everything into a closed, labeled container compatible with the product. Flush with plenty of water. Prevent product from entering drains. Treat recovered material as described in the section "Disposal considerations".

## Emergency Procedures

Shut off leaks, if possible without personal risks. Remove all possible ignitions in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth or other appropriate barriers. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas indicator.

## SECTION 7 HANDLING AND STORAGE

**Precautions for Safe Handling:** Use proper bonding and grounding (earthing) all equipment. Electrostatic discharge may cause fire. Prevent small spills and leakage to avoid slip hazard. Avoid contact with skin.

**Conditions for Safe Storage:** Keep container dry. Ground all equipment containing material. Keep container tightly closed. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents. Keep in a cool, well-ventilated place.

Storage temperature: Ambient  
Storage/Transport Pressure: Atmospheric

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides	Not Established	Not Established	Not Established	Not Established

## Engineering Controls

Ensure adequate ventilation. Provide appropriate exhaust ventilation at machinery. Refer to protective measures listed in sections 7 and 8. Apply technical measures to comply with the occupational exposure limits.

## Personal Protective Equipment (PPE):

### Eye Protection

Eye protection is not required under normal conditions of use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.

### Skin Protection

Apron/boots of neoprene if risk of splashing. For hand protection, use chemical resistant protective gloves such as Polyvinyl alcohol coated gloves.





# Safety Data Sheet

## Respiratory Protection

In the case of hazardous fumes, wear self contained breathing apparatus. Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection

## Thermal hazards

NA

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear
<b>Odour</b>	Jasmine
<b>Odour Threshold</b>	Not Available
<b>pH</b>	7
<b>Melting Point/ Freezing Point (°C)</b>	Not determined
<b>Initial boiling point and range (°C)</b>	Not determined
<b>Flash Point (°C) [According to ISO 3679, Closed Cup Testing]</b>	No flash point detected (From ambient temperature to 93°C)
<b>Evaporation Rate</b>	Not determined
<b>Flammability (solid, gas)</b>	Not applicable
<b>Vapour Pressure</b>	Not determined
<b>Upper/lower Flammability (Explosive) Limits:</b>	Not determined
<b>Vapour Density</b>	Not determined
<b>Relative Density</b>	0.99 ± 0.03
<b>Solubility in water</b>	Soluble
<b>Partition coefficient (N-Octanol/water)</b>	Not determined
<b>Auto-ignition Temperature (°C)</b>	Not determined
<b>Decomposition Temperature:</b>	Not determined
<b>Viscosity (mPa s)</b>	Not determined

## SECTION 10 STABILITY AND REACTIVITY

### Reactivity/Incompatible materials

Strong oxidizers.

### Chemical Stability

Stable under ordinary conditions of use and storage.



# Safety Data Sheet

## Possibility of hazardous reactions

Combustion and thermal decomposition.

## Hazardous decomposition products

Thermal decomposition may produce toxic vapours/ fumes of hydrogen chloride, amines and other organic materials, and oxides of carbon and nitrogen.

## Conditions to avoid

None known

## Materials to avoid

Strong oxidizing agents, reducing agents, strong acids.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Acute toxicity (ATE<sub>mix</sub>)

Acute oral toxicity (LD50): >5000 mg/kg [Rat].

Acute dermal toxicity (LD50): >5000 mg/kg [Rabbit].

Inhalation toxicity (LC50): >100 mg/L

**Carcinogenicity:** Not listed under IARC.

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

Non Toxic

### Persistence/Degradability

Not expected to bio-accumulate significantly

### Bio accumulative Potential

Not expected to bio-accumulate significantly

## SECTION 13 DISPOSAL CONSIDERATIONS

### Local legislation

Dispose in compliance with local/federal and national regulations. It is recommended to contact the producer for recycling/recovery. Or send the product to an authorized hazardous waste incinerator.

### Container Disposal

To avoid treatments, as far as possible, use dedicated containers. If not, rinse the empty containers with a low volatility hydrocarbon and treat the effluent in the same way as waste. Containers that cannot be cleaned must be treated as waste.

## SECTION 14 TRANSPORT INFORMATION

**Land (ADR)/ Sea (IMDG and Annex II of MARPOL 73/78 and the IBC Code)/ Air (IATA)**

**UN number** Not regulated



# Safety Data Sheet

<b>UN Class</b>	NA
<b>Subsidiary risk</b>	NA
<b>Packing Group</b>	NA
<b>Proper shipping name</b>	NA
<b>HIN</b>	NA

## Special precautions:

Before transportation, make sure the containers are tightly sealed and that there are no liquid or gas leaks.

When transporting containers, be sure that they are tightly fastened. An appropriate buffer material should be placed between them to prevent them from bumping each other and being damaged during transport.

## SECTION 15 REGULATORY INFORMATION

### Applicable national regulations:

#### Standards on Hazard communication for hazardous chemicals and dangerous goods

- SS 586: Part 1: 2014-Transport and storage of dangerous goods
- SS 586: Part 2: 2014-GHS of classification and labelling of chemicals
- SS 586: Part 3: 2008-Preparation of safety data sheet

#### MOM: Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations

- This product is subject to SDS, labelling, PEL and other requirements in the Acts/Regulations.

#### NEA: Environmental Protection and Management Act & Environmental Protection and Management (Hazardous Substances) Regulations

- This product is not subject to control under this Acts/Regulations.

#### SCDF: Fire Safety Act & Fire Safety (Petroleum and Flammable Materials) Regulations

- This product is not subject to the requirement of this Acts/Regulations.

#### SPF: The Arms and Explosive Act, the Arms and Explosives (Explosives) Rules, and the Arms and Explosives (Explosive Precursors) Rules

- This product is not subject to the requirement of this Acts/Regulations

## SECTION 16 OTHER INFORMATION

**Department issuing date sheet:** Vance Chemicals Quality Control and Laboratory

**Original Issue date:** 1 January 2010

**Revision no:** 07

**Revision date:** 3 March 2020

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## Safety Data Sheet

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