



22 Multi-Quat Sanitizer

22 มัลติ-ควอท แซนิไทเซอร์



ผลิตภัณฑ์ฆ่าเชื้อ 22 มัลติ-ควอท แซนิไทเซอร์ (ผลิตภัณฑ์ในการกำกับดูแลของสำนักงานคณะกรรมการอาหารและยา ทะเบียนอาหารและยาเลขที่ วอส.643/2553) ขนาดปริมาตร 2 ลิตร มีคุณสมบัติ ใช้กำจัดเชื้อโรคแบคทีเรีย และไวรัสพื้นผิวทั่วไป สำหรับบริเวณพื้นผิวประกอบอาหารและงานแม่บ้านทั่วไป พื้นผิวโต๊ะ อุปกรณ์ต่างๆ พื้นผิวกระเบื้อง อ่างล้างมือ พื้นผนัง และพื้นผิวโครเมียม

มีอัตราส่วนของสารสำคัญเป็นสารฆ่าเชื้อในกลุ่ม Quaternary ammonium compounds ได้แก่ Alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride, Octyl decyl dimethyl ammonium chloride ethanol และ Didecyl Dimethyl Ammonium Chloride ซึ่งองค์การอนามัยโลกได้ประกาศไว้ใน Laboratory biosafety guidance related to coronavirus disease 2019 [COVID - 19] เมื่อ 12 February 2020 (หน้าที่2และ3) ว่า Benzalkonium chloride 0.05–0.2% สามารถกำจัดเชื้อ COVID - 19 ได้ สามารถฆ่าเชื้อ corona virus ที่ก่อโรคในมนุษย์ ได้ โดย 22 มัลติ-ควอท แซนิไทเซอร์ มีส่วนผสมของสารสำคัญ Alkyl dimethyl benzyl ammonium chloride 3.0% w/w ในปริมาณที่เข้มข้น และมีความปลอดภัยเพราะได้รับการรับรอง ปริมาณการใช้ที่เหมาะสมสามารถใช้กับภาชนะหรือพื้นผิว ที่สัมผัสกับอาหารได้ โดย สถาบันEnvironmental Protection Agency –EPA นอกจากนี้ 22 มัลติ-ควอท แซนิไทเซอร์ ยังเป็นผลิตภัณฑ์ที่ได้รับการแนะนำประสิทธิภาพว่าสามารถฆ่าเชื้อ Covid-19 ได้ โดย The American Chemistry Council's Center for Biocide Chemistries-CBC อีกด้วย

วิธีใช้ : ผสม 22 มัลติ-ควอท แซนิไทเซอร์ กับน้ำในอัตราส่วน

- 2-4 มิลลิลิตร : น้ำ 1 ลิตร(1,000มิลลิลิตร) สำหรับใช้เช็ดฆ่าเชื้อประจำวัน ร่วมกับผ้าสะอาดสามารถ และในอัตราส่วนนี้สามารถสัมผัสพื้นผิวที่สัมผัสอาหารได้
- 10-24 มิลลิลิตร : น้ำ 1 ลิตร(1,000มิลลิลิตร) สำหรับใช้ในการเช็ดเช็ดฆ่าเชื้อหรือ ฉีดพ่นฆ่าเชื้อ เพื่อป้องกัน และยับยั้งการแพร่กระจาย(Preventive protection)ของเชื้อโรค และ ไวรัส

- ☐ การฉีดและเช็ด เมื่อฉีดทั้งสัปดาห์เพื่อให้ น้ำยาแสดงประสิทธิภาพสูงสุด
- ☐ การฉีดพ่น ควรปิดสถานที่ฉีดเป็นเวลา 2 ชั่วโมง เพื่อประสิทธิภาพสูงสุด (ขณะฉีดพ่น ควรอุปกรณ์ป้องกันส่วนบุคคล-PPE ได้แก่ หมวกคลุมผม แว่นตา ผ้าปิดจมูก รองเท้า และถุงมือ เป็นต้น ทุกครั้ง) และศึกษาข้อมูลผลิตภัณฑ์ และวิธีทำงานให้ดีขึ้น

ข้อควรระวัง - ก่อนใช้ทุกครั้งควรอ่านศึกษาฉลาก และเอกสารข้อมูลความปลอดภัย (SDS-Safety Data Sheet) ก่อนทุกครั้ง

- **ระวังอย่าให้เข้าตา**
- **ห้ามสูดดมไอ/ละออง โดยตรง**
- **และ ห้ามฉีดที่ผิวหนังโดยตรง**

ขนาดบรรจุ : 2 ลิตร



Efficacy Range:
150 - 440 ppm

Food Contact Surface

Laboratory biosafety guidance related to coronavirus disease 2019 (COVID-19)

Interim guidance
12 February 2020



องค์การอนามัยโลกได้ประกาศไว้ใน Laboratory biosafety guidance related to coronavirus disease 2019 [COVID – 19] เมื่อ 12 February 2020 (หน้าที่2และ3) ว่า

“ การใช้น้ำยาฆ่าเชื้อที่เหมาะสม

ในขณะที่ไม่ค่อยมีใครรู้จักไวรัสชนิดใหม่นี้ ซึ่งมีลักษณะทางพันธุกรรมที่คล้ายคลึงกันระหว่างไวรัสที่ผลการเกิดโรคติดต่อ COVID-19 และ MERS-CoV ซึ่งให้เห็นว่าไวรัส COVID-19 อาจไวต่อยาฆ่าเชื้อที่มีฤทธิ์พิสูจนแล้วว่า ต่อด้านไวรัสชนิดที่ถูกห่อหุ้มตัว รวมถึงโซเดียมไฮโปคลอไรต์ (ตัวอย่างเช่นสารฟอกขาว ที่ความเข้มข้น 1,000 ส่วนต่อล้าน [ppm] [0.1%] สำหรับการฆ่าเชื้อโรคบนพื้นผิวทั่วไป และ 10,000 ppm [1%] สำหรับการฆ่าเชื้อโรคที่เกิดจากการปนเปื้อนจากการรั่วไหลของเลือด) สารเอทานอล 62–71% สารไฮโดรเจนเปอร์ออกไซด์ 0.5%; และสารประกอบที่มีแอมโมเนียมผสมอยู่สี่ส่วน หรือสารประกอบฟีนอล หรือใช้สารที่มีคำแนะนำของผู้ผลิตว่ามีส่วนผสมของสารฆ่าเชื้อทางชีวภาพอื่น ๆ ได้แก่ **0.05–0.2% benzalkonium chloride (เบนซอลโคเนียม คลอไรด์)** หรือ 0.02% chlorhexidine digluconate (โคลเฮกซิดีน ดิกลูคอนเนท) ซึ่งจะมีประสิทธิภาพน้อยลง ”



World Health
Organization

Laboratory biosafety guidance related to coronavirus disease 2019 (COVID-19)

Interim guidance
12 February 2020



1. Introduction

The purpose of this document is to provide interim guidance on laboratory biosafety related to the testing of clinical specimens of patients that meet the case definition of the novel pathogen identified in Wuhan, China, that is, 2019 novel coronavirus (2019-nCoV), now known as the virus responsible for coronavirus disease 2019 (COVID-19).

As our understanding of COVID-19 is limited but rapidly growing, the World Health Organization (WHO) continues to monitor developments and will revise these recommendations as necessary.

Highlights of COVID-19 laboratory biosafety

- All procedures must be performed based on risk assessment and only by personnel with demonstrated capability, in strict observance of any relevant protocols at all times.
- Initial processing (before inactivation) of all specimens should take place in a validated biological safety cabinet (BSC) or primary containment device.
- Non-propagative diagnostic laboratory work (for example, sequencing, nucleic acid amplification test [NAAT]) should be conducted at a facility using procedures equivalent to Biosafety Level 2 (BSL-2).
- Propagative work (for example, virus culture, isolation or neutralization assays) should be conducted at a containment laboratory with inward directional airflow (BSL-3).
- Appropriate disinfectants with proven activity against enveloped viruses should be used (for example, hypochlorite [bleach], alcohol, hydrogen peroxide, quaternary ammonium compounds and phenolic compounds).
- Patient specimens from suspected or confirmed cases should be transported as UN3373, "Biological Substance Category B". Viral cultures or isolates should be transported as Category A, UN2814, "infectious substance, affecting humans".

2. Laboratory biosafety

It is essential to ensure that health laboratories adhere to appropriate biosafety practices. Any testing for the presence of the virus responsible for COVID-19 or of clinical specimens from patients meeting the suspected case definition (1) should be performed in appropriately equipped laboratories, by staff trained in the relevant technical and safety procedures. National guidelines on the laboratory biosafety should be followed in all circumstances. For general information on laboratory biosafety guidelines, see the WHO *Laboratory biosafety manual*, 3rd edition (2) in the interim before the 4th edition is released.

Key points

- Each laboratory should conduct a local (that is, institutional) risk assessment to ensure it is competent to safely perform the intended testing with appropriate risk control measures in place.
- When handling and processing specimens, including blood for serological testing, laboratory practices and procedures that are basic to good microbiological practices and procedures (GMPP) should be followed.
- The handling and processing of specimens from cases with suspected or confirmed COVID-19 infection that are intended for additional laboratory tests, such as haematology or blood gas analysis, should follow local guidelines for processing potentially infectious material.
- Non-propagative diagnostic laboratory work, including sequencing and NAAT, on clinical specimens from patients who are suspected or confirmed to be infected with COVID-19, should be conducted adopting the practices and procedures of "core requirements",¹ as detailed in Annex 1, and an appropriate selection of "heightened control measures",² as informed by the local risk assessment. In the interim, BSL-2 in the WHO *Laboratory biosafety manual*, 3rd edition (2) remains appropriate until the 4th edition replaces it.
- Handling of material with high concentrations of live virus (such as when performing virus propagation, virus isolation or neutralization assays) or large volumes of infectious materials should be performed **only by**

¹ **Core requirements:** A set of minimum requirements defined in the 4th edition of the WHO *Laboratory biosafety manual* to describe a combination of risk control measures that are both the foundation for, and an integral part of, laboratory biosafety. These measures reflect international standards and best practice in biosafety that are necessary to work safely with biological agents, even where the associated risks are minimal.

² **Heightened control measures:** A set of risk control measures that may need to be applied in a laboratory facility because the outcome of a risk assessment indicates that the biological agents being handled and/or the activities to be performed with them are associated with a relatively high risk that cannot be acceptable solely with the core requirements.

properly trained and competent personnel in laboratories capable of meeting additional essential containment requirements and practices, that is, BSL-3.

- Initial processing (before inactivation) of all specimens, including those for sequencing and NAAT, should take place in an appropriately maintained and validated BSC or primary containment device.
- Appropriate disinfectants with proven activity against enveloped viruses should be used for the recommended contact time, at the correct dilution and within the expiry date after the working solution is prepared.
- All technical procedures should be performed in a way that minimizes the generation of aerosols and droplets.
- Appropriate personal protective equipment (PPE), as determined by a detailed risk assessment, should be worn by all laboratory personnel handling these specimens.
- Patient specimens from suspected or confirmed cases should be transported as UN3373, "Biological Substance Category B". Viral cultures or isolates should be transported as Category A, UN2814, "infectious substance, affecting humans" (3).

3. Recommendations addressing minimal/essential working conditions associated with specific manipulations in laboratory settings

The additional recommendations provided in this section address the minimal/essential working conditions associated with specific manipulations in laboratory settings.

a. Risk assessment

Risk assessment is a systematic process of gathering information and evaluating the likelihood and consequences of exposure to or release of workplace hazard(s) and determining the appropriate risk control measures to reduce the risk to an acceptable level. It is important to note that hazards alone do not pose a risk to humans or animals. Consideration therefore must also be given to the types of equipment used and the procedure(s) that will be performed with the biological agent.

It is highly recommended to start with performing a local risk assessment for each process step, that is, from sample collection, sample reception, clinical testing, polymerase chain reaction (PCR) to virus isolation (only when and where applicable). Certain hazards will then be considered for each process step, such as aerosol exposure during sample processing; eye splash during

sample processing; infectious culture material spill; and leaking sample (in the case of sample reception), with an assessed grade of risk. For each identified risk, appropriate risk control measures, including but not limited to the following recommendations, should be selected and implemented, in order to mitigate the residual risks to an acceptable level.

A risk assessment template is provided in **Annex 2**; this is intended to serve as an example and to facilitate the process.

b. Routine laboratory procedures, including non-propagative diagnostic work and PCR analysis

Non-culture-based diagnostic laboratory work, and PCR analysis on clinical specimens from patients who are suspected or confirmed to be infected with the virus responsible for COVID-19, should be conducted adopting practices and procedures described for conventional clinical and microbiology laboratories as described in the "core requirements" (see **Annex 1**).

However, all manipulations of potentially infectious materials, including those that may cause splashes, droplets or aerosols of infectious materials (for example, loading and unloading of sealed centrifuge cups, grinding, blending, vigorous shaking or mixing, sonic disruption, opening of containers of infectious materials whose internal pressure may be different from the ambient pressure), should be performed in appropriately maintained and validated BSCs or primary containment devices, by personnel with demonstrated capability.

Examples of routine laboratory procedures include:

- diagnostic testing of serum; blood (including haematology and clinical chemistry); respiratory specimens such as nasopharyngeal and oropharyngeal swabs, sputum and/or endotracheal aspirate or bronchoalveolar lavage; stool; or other specimens;
- routine examination of mycotic and bacterial cultures developed from respiratory tract specimens. When handling and processing specimens, "core requirements" (see **Annex 1**), including GMPP, should be followed at all times, including but not limited to those under the following subheadings. More details are explained and demonstrated in the WHO *Biosafety video series* (4).

c. Use of appropriate disinfectants

- While little is known about this novel virus, the comparable genetic characteristics between the virus responsible for COVID-19 and MERS-CoV suggest that the COVID-19 virus may be susceptible to disinfectants with proven activity against enveloped viruses, including sodium hypochlorite (bleach; for example, 1000 parts per million [ppm] (0.1%) for general surface disinfection and 10 000 ppm (1%) for disinfection of blood spills);

62–71% ethanol; 0.5% hydrogen peroxide; quaternary ammonium compounds; and phenolic compounds, if used according to the manufacturer's recommendations. Other biocidal agents such as 0.05–0.2% benzalkonium chloride or 0.02% chlorhexidine digluconate can be less effective.

- Particular attention should be paid not only to the selection of the disinfectant but also the contact time (for example, 10 minutes), dilution (that is, concentration of the active ingredient) and expiry date after the working solution is prepared.

- Human coronaviruses in general are known to persist on inanimate surfaces such as metal, glass or plastic for up to 9 days (5).

d. Viral isolation

Unless a country decides otherwise, considering the newly acquired knowledge and effective preventive measures described above, viral isolation on clinical specimens from patients who are suspected or confirmed to be infected with the virus responsible for COVID-19 should be performed only in laboratories capable of meeting the following additional containment criteria:

- a controlled ventilation system maintains inward directional airflow into the laboratory room,
- exhaust air from the laboratory room is not recirculated to other areas within the building. Air must be HEPA (high-efficiency particulate air) filtered, if reconditioned and recirculated within the laboratory. When exhaust air from the laboratory is discharged to the outdoors, it must be dispersed away from occupied buildings and air intakes. This air should be discharged through HEPA filters;
- a dedicated hand-wash sink is available in the laboratory;
- all manipulations of infectious or potentially infectious materials must be performed in appropriately maintained and validated BSCs;
- laboratory workers should wear protective equipment, including disposable gloves, solid-front or wrap-around gowns, scrub suits, or coveralls with sleeves that fully cover the forearms; head coverings; shoe covers or dedicated shoes; and eye protection (goggles or face shield). Risk assessment should inform the use of respiratory protection (fit-tested particulate respirator, for example, EU FFP2, US 6 NIOSH-certified N95 or equivalent, or higher protection);
- centrifugation of specimens should be performed using sealed centrifuge rotors or sample cups. These rotors or cups should be loaded and unloaded in a BSC.

e. Additional risks associated with virus isolation studies

Certain experimental procedures may carry additional risks of virus mutations with possible increased pathogenicity and/or transmissibility, or viruses with altered antigenicity or drug susceptibility. Specific risk assessments should be conducted, and specific risk-reduction measures adopted, before any of the following procedures are conducted:

- coinfection of cell cultures with different coronaviruses, or any procedures that may result in a coinfection;
- culture of viruses in the presence of antiviral drugs;
- deliberate genetic modification of viruses.

f. Work with animals infected with the virus responsible for COVID-19

The following activities require an animal facility – BSL-3 facilities and work practices, as detailed in the WHO *Laboratory biosafety manual*, 3rd edition (2):

- inoculation of animals for potential recovery of the agent from specimens of the virus responsible for COVID-19;
- any protocol involving animal inoculation for confirmation and/or characterization of putative agents of the COVID-19 virus.

g. Referral of specimens to laboratories with appropriate containment measures in place

Laboratories that are not able to meet the above biosafety recommendations should consider transferring specimens to national, regional or international referral laboratories with COVID-19-detection capacity that can meet the biosafety requirements.

4. Packaging and shipment

All materials transported within and between laboratories should be placed in a secondary container, to minimize the potential for breakage or a spill. An example includes transfer of materials from the BSC to an incubator and vice versa. Specimens leaving the BSC should be surface decontaminated. Detailed guidance is provided in the WHO *Biosafety video series* (4), in particular *Good microbiological practices and procedures (GMP)* 7: transport.

Transport of specimens within national borders should comply with applicable national regulations. Cross-boundary transport of specimens of the virus responsible for COVID-19 should follow the United Nations model regulations, *Technical instructions for the safe transport of*



The Center for Biocide chemistries is the part of American Chemistry Council, formerly known as the Manufacturing Chemists' Association and then as the Chemical Manufacturers' Association, is an industry trade association for American chemical companies.

Novel Coronavirus (COVID-19)—Fighting Products¹

The American Chemistry Council's (ACC) Center for Biocide Chemistries (CBC) has compiled a list of products that have been pre-approved by the U.S. Environmental Protection Agency (EPA) for use against emerging enveloped viral pathogens and can be used during the 2019 novel coronavirus (COVID-19) outbreak. This product list is not exhaustive but can be used by business owners, health professionals, and the public to identify products available for use against COVID-19.

Commercially Available Product Name	Dilutable Products	Company/Distributor	EPA REG. No.
34 FLUID ANTI-BACTERIAL ALL PURPOSE CLEANER	Ecobac Inc.		8895-548-1677
36 INDUSTRIAL DISINFECTANT CLEANER	Ecobac Inc.		47871-129-1677
4-450 H-1 DISINFECTANT CLEANER	Ecobac Inc.		8895-548-1677
8000T-3200	Ecobac Inc.		82701-8-1677
8000T-3200 CP	Ecobac Inc.		83701-8-1677
8000T SURFACE TREATMENT	Ecobac Inc.		82701-10-1677
CHICKEN DISINFECTANT/SANITIZER	Ecobac Inc./Kay Chemical Co.		8895-548-1677
COCA-COCA ACTIVE	Ecobac Inc.		2677-218
FOOD CONTACT QUAT SANITIZER	Ecobac Inc.		8895-548-1677
KAY SURFACE SANITIZER	Ecobac Inc./Kay Chemical Co.		8895-548-1677
KAYDENT H	Ecobac Inc./Kay Chemical Co.		8895-548-1677
MULTI-PURPOSE NEUTRAL PH DISINFECTANT	Ecobac Inc.		47871-132-1677
NEUTRAL DISINFECTANT CLEANER	Ecobac Inc.		82701-109-1677
ORIS 400 UV DISINFECTANT	Ecobac Inc.		8895-548-1677
ORIS 400 ACTIVE	Ecobac Inc.		8895-548-1677
ORIS 400 DAILY DISINFECTANT CLEANER	Ecobac Inc.		8895-548-1677
ORIS 400 NIGHT SURFACE CLEANER AND DISINFECTANT	Ecobac Inc./Kay Chemical Co.		8895-548-1677
QUATERNARY DISINFECTANT CLEANER	Ecobac Inc.		8895-548-1677
SANI QUAD FOOD SERVICE SANITIZER	Ecobac Inc./Kay Chemical Co.		8895-548-1677
SANITIZER / DISINFECTANT SANITIZER	Ecobac Inc.		8895-548-1677
SUPER SAN FOOD SERVICE SANITIZER	Ecobac Inc./Kay Chemical Co.		8895-548-1677
TRIPLE FLUO	Ecobac Inc./Kay Chemical Co.		8895-548-1677

SANI QUAD FOOD SERVICE SANITIZER

Ecobac Inc/Kay Chemical Co.

6836-70-1677

ECOLAB

ECOLAB EPA APPROVED PRODUCTS: NOVEL CORONAVIRUS (2019-NCoV)

Products	Description
	Sani Quad Food Service Sanitizer (ProClean) 4 - 1.00 gal 3rd Sink/ Surface Sanitizer Product #0101573 EPA Reg. # 6836-70-1677 Dilution: 3.5 fl. oz/ 4.5 gallons Contact Time: 10 min
	= 22 Multi-Quat Sanitizer (Product in Thailand)
	Dilution 10 ml./Lt.

SANI QUAD FOOD SERVICE SANITIZER has demonstrated effectiveness against viruses similar to 2019 Novel Coronavirus on hard, non-porous surfaces. Therefore, SANI QUAD FOOD SERVICE SANITIZER can be used against 2019 Novel Coronavirus when used in accordance with the directions for use against Norovirus on hard, non-porous surfaces. Refer to the CDC website at <https://www.cdc.gov/travel/notices/alert/novel-coronavirus-china> for additional information.

2019-nCoV is caused by 2019 Novel Coronavirus. SANI QUAD FOOD SERVICE SANITIZER kills similar viruses and therefore can be used against 2019 Novel Coronavirus when used in accordance with the directions for use against Norovirus on hard, non-porous surfaces. Refer to the CDC website at <https://www.cdc.gov/travel/notices/alert/novel-coronavirus-china> for additional information.



The American Chemistry Council's Center for Biocide Chemistries –CBC แนะนำประสิทธิภาพ โดยอาศัย ข้อมูลร่วมของสถาบัน Environmental Protection Agency EPA ว่าผลิตภัณฑ์ Sani Quad Food Service Sanitizer (Pro Clean) หรือ ผลิตภัณฑ์ 22 มัลติ-ควอท แซนิไทเซอร์ (ในประเทศไทย)ว่า สามารถทำลายเชื้อ Covid-19 ได้



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เรียน ท่านลูกค้าผู้มีอุปการะคุณ

เรื่อง ขอชี้แจงสารออกฤทธิ์ของผลิตภัณฑ์ฆ่าเชื้อ 22 Multi-Quat Sanitize

ตามที่ทางบริษัทเอ็กโบลับ ได้แนะนำการป้องกันการแพร่กระจายเชื้อโรคด้วยการใช้ผลิตภัณฑ์ฆ่าเชื้อ 22 Multi-Quat Sanitizer ที่อัตราส่วนผลิตภัณฑ์ 10 มิลลิลิตร ต่อน้ำ 1 ลิตร เป็นเวลา 10 นาทีแล้วล้างน้ำออกนั้น ทางบริษัทฯ ขอชี้แจงเพิ่มเติมเกี่ยวกับสารสำคัญในการออกฤทธิ์ฆ่าเชื้อของผลิตภัณฑ์ฆ่าเชื้อ 22 Multi-Quat Sanitizer ที่ประกอบด้วย

Alkyl dimethyl benzyl ammonium chloride 3.0%

Octyl decyl dimethyl ammonium chloride 2.25%

Didecyl dimethyl ammonium chloride 1.35%

Diocyl dimethyl ammonium chloride 0.9%

ซึ่งสารสำคัญดังกล่าวเป็นสารเคมีชนิดเดียวกันและมีปริมาณเท่ากับผลิตภัณฑ์ของเอ็กโบลับที่ประเทศสหรัฐอเมริกาที่ชื่อว่า Sani Quad Food Service Sanitizer และ PureForce Food Contact Quat Sanitizer

อย่างไรก็ตาม ในการป้องกันการแพร่กระจายของเชื้อโรคนั้น ยังมีความจำเป็นเสมอในการรักษาสุขอนามัยที่ดีในชีวิตประจำวัน เช่น การล้างมือบ่อยๆ ด้วยสบู่ล้างมือ แล้วตามด้วยการลดเชื้อด้วยแอลกอฮอล์ การสวมใส่หน้ากากขณะทำงานเพื่อป้องกันการแพร่กระจายเชื้อด้วยการไอหรือจาม

จึงเขียนมาเพื่อทราบ

ขอแสดงความนับถือ

Jarunrat S.

(จารุรัตน์ ศรีระชา)

นักเคมี แผนกวิจัยและพัฒนาผลิตภัณฑ์

บริษัท เอ็กโบลับ จำกัด



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

NOTIFICATION

1677-198

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

07/09/2019

Multi-Quat

(Disinfectant - Sanitizer - Deodorizer - Cleaner)
(For Industrial and Commercial Use)

(Schools - Restaurants - Food Services - Dairies - Beverage and Food Processing Plants - Farm Premises - Poultry Premises - Poultry Hatcheries - Animal Housing Facilities)

ACTIVE INGREDIENTS:

Alkyl (C₁₄, 50%; C₁₂, 40%; C₁₆, 10%)

dimethyl benzyl ammonium chloride	3.00%
Octyl decyl dimethyl ammonium chloride	2.25%
Didecyl dimethyl ammonium chloride	1.35%
Dioctyl dimethyl ammonium chloride	0.90%

OTHER INGREDIENTS: 92.50%

TOTAL: 100.00%

TO SANITIZE FOOD CONTACT SURFACES, FOOD PROCESSING EQUIPMENT AND OTHER HARD SURFACES (IN FOOD PROCESSING LOCATIONS, DAIRIES, OR RESTAURANTS):

Use Multi-Quat to sanitize pre-cleaned hard, non-porous surfaces of food processing equipment, dairy equipment, food utensils, dishes, silverware, glasses, sink tops, countertops, refrigerated storage areas and display equipment and other hard non-porous surfaces in federally inspected meat and poultry plants or restaurants. Prior to application, remove gross food particles and soil by a pre-flush, pre-scrape or when necessary, a pre-soak. Then thoroughly wash or flush objects with a good detergent or compatible cleaner followed by a potable water rinse before application of the sanitizing solution. Apply a use-solution of 1.04 - 2.72 fl. oz. of Multi-Quat per 4 gallons of 400 ppm hard water (150 - 400 ppm active quat) or 1.36 - 2.72 fl. oz. of Multi-Quat per 4 gallons of 500 ppm hard water (200 - 400 ppm active quat). Expose all surfaces to the sanitizing solution for a period of not less than 1 minute. Allow equipment to drain thoroughly and air dry.

In dairy processing facilities and restaurants in Wisconsin, clean equipment with a good detergent and follow with a potable water rinse, then rinse equipment with a sanitizing solution of 1.36 - 2.72 fl. oz. of Multi-Quat per 4 gallons of 500 ppm hard water (200 - 400 ppm active quat).

NOTE: FOR MECHANICAL OPERATIONS: A prepared use solution may not be reused for sanitizing, but may be reused for other purposes such as cleaning.

FOR MANUAL OPERATIONS: Prepare a fresh sanitizing solution as soon as it becomes diluted or soiled.

SANITIZING HARD, NON-POROUS, NON-EDIBLE OUTSIDE SURFACES OF AIRTIGHT, SEALED PACKAGES CONTAINING FOOD OR NON-FOOD PRODUCTS

Multi-Quat may be used as a final sanitizing rinse for hard, non-porous non-edible outside surfaces of airtight, sealed packages containing food or non-food products at a use-solution of 1.04 - 2.72 fl. oz. of Multi-Quat per 4 gallons of 400 ppm hard water (150 - 400 ppm active quat) or 1.36 - 2.72 fl. oz. of Multi-Quat per 4 gallons of 500 ppm hard water (200 - 400 ppm active quat). The treated hard, non-porous, non-edible packaging, such as food wraps and meat casings, must be removed and discarded before packaged food products are further processed or consumed. All surfaces must be exposed to the sanitizing solution for a period of not less than 1 minute. Drain thoroughly. No rinse necessary. This is not to be used on porous surfaces.

รับรอง ปริมาณการใช้ที่เหมาะสมสามารถใช้กับภาชนะหรือพื้นผิวที่สัมผัสกับอาหารได้ โดย สถาบัน
Environmental Protection Agency -EPA ที่ค่าไม่เกิน 400ppm หรือปริมาณ 2-4 มิลลิลิตร : น้ำ 1 ลิตร



22 Multi-Quat Sanitizer

VERSATILE FOOD CONTACT SANITIZING CONCENTRATE

Delivering an efficacy range of 150-440 ppm, this no-rinse quat sanitizer provides convenient, effective protection from the threat of tested foodborne organisms.



NO RINSE FOOD CONTACT SURFACE SANITIZER

The 22 Multi-Quat Sanitizer is a concentrated, no-rinse quat sanitizer that gives you a wide sanitization range with maximum convenience. Use it as an easy spray-and-wipe, mop bucket or third sink sanitizer application, with no rinsing required.



PROVEN EFFECTIVE AT PROPER USE DILUTIONS

- ▲ Economical foodservice sanitizer
- ▲ Use for spray-and-wipe, mop bucket or third sink
- ▲ No-rinse procedure simplifies sanitization
- ▲ Safe for food contact surfaces
- ▲ Quick, convenient application
- ▲ Color-coded to ensure the right product for the right application
- ▲ 5th generation quaternary compound
- ▲ Disinfectant, sanitizer and deodorizer
- ▲ Hospital disinfectant

22 Multi-Quat Sanitizer

DIRECTIONS FOR USE:

Dilutions = AmtL product / 1L water

HOSPITAL VIRUCIDAL/FUNGICIDAL DISINFECTION DIRECTIONS

Dilution: 8 mL/L This product can be used to disinfect floors, walls, countertops, bathtubs, lavatories, bed-frames, tables, chairs, garbage pails and other hard, nonporous surfaces in health care institutions.
For heavily soiled areas, a pre-cleaning step is required. Treated surfaces must remain wet for 10 minutes. Remove solution with a clean mop, cloth, or wet vacuum pickup or allow to air dry. Prepare fresh solution at least daily or when use solution becomes visibly dirty. At this use level, 22 Multi-Quat Sanitizer is effective against *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Salmonella choleraesuis* in the presence of 5% blood serum when evaluated by the AOAC Use-Dilution test. This product is not for use on medical device surfaces.

GENERAL VIRUCIDAL/FUNGICIDAL DISINFECTION

Dilution: 8 mL/L This product is an effective general disinfectant that can be used to disinfect floors, walls, finished woodwork, sink tops, garbage pails, telephones, rest rooms, bathroom fixtures, and other hard, nonporous surfaces. For heavily soiled areas, a pre-cleaning step is required. Apply disinfecting solution to surface by flushing, mopping, sponging or hand pump spraying so as to thoroughly wet surface. Allow surface to remain wet for 10 minutes. Remove solution with a clean mop, cloth, or wet vacuum pickup or allow to air dry. Prepare fresh solution at least daily or when use becomes visibly dirty. Any food contact surfaces that have been disinfected must be thoroughly rinsed with potable water. Do not use this product as a disinfectant on glasses, dishes or utensils.

Non-Acid Toilet Bowl Disinfectant/Cleaner Directions: Remove gross filth prior to disinfection.

From Concentrate: Add 15 mL to the bowl and mix. Brush over exposed surfaces and under the rim, allow to stand for 10 minutes and flush.

From Use Solution: Empty toilet bowl or urinal and apply 8 mL/L use-solution to exposed surfaces and under the rim with a cloth, mop, sponge or mechanical spray. Brush or scrub thoroughly. Let stand for 10 minutes and flush. For Heavy Duty Use: Empty toilet bowl or urinal and apply 3.1 mL/L use-solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer. Brush or scrub thoroughly. Let stand for 10 minutes and flush.

Deodorizing Directions: This product deodorizes garbage storage areas, garbage bins, toilet bowls and any other hard nonporous surface in odor causing areas. Mix 3 mL/L and apply solution to surfaces. Thoroughly wet surfaces, allow to air dry.

Cleaning and Disinfection: Dilution 8 mL/L. Apply use solution with a cloth, mop, sponge, sprayer or by immersion to thoroughly wet the surface. Treated surfaces must remain wet for 10 minutes. Wipe or allow to air dry. For heavily soiled surfaces, pre-clean first. Prepare a fresh solution for each use or more often if solution becomes visibly diluted, clouded or soiled.

For Heavy Duty Cleaning: Dilution 12 mL/L. Heavily soiled areas may require repeated cleaning.

Non-Food Contact Surface Sanitizing: Dilution 3 mL/L (200 ppm active quat) To sanitize hard, nonporous non-food contact surfaces. Apply sanitizer use-solution with a cloth, mop, sponge, sprayer or by immersion. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Do not breathe spray. Treated surfaces must remain wet for 60 seconds. Wipe dry with a sponge, mop, or cloth or allow to air dry. 22 Multi-Quat Sanitizer can be used to sanitize hard, non-porous food contact surfaces such as tables, counters, utensils, and food processing equipment.

22 Multi-Quat Sanitizer is an effective sanitizer against *Escherichia coli* and *Staphylococcus aureus* on food contact surfaces when used at 2.5 mL/L of 400 ppm hard water (150 ppm to 400 ppm active quat).

22 Multi-Quat Sanitizer is an effective sanitizer against *Escherichia coli*, *Staphylococcus aureus*, *Campylobacter jejuni*, *Escherichia coli* O157:H7, *Moraxella pomiformis*, *Listeria monocytogenes*, *Salmonella choleraesuis*, *Shigella sonnei*, *Yersinia enterocolitica* and *Enterobacter sakazakii* on food contact surfaces when used at 2.5 mL/L of 400 ppm hard water (200 ppm to 400 ppm active quat).

To Sanitize Food Contact Surfaces, Food Processing Equipment and Other Hard Surfaces in (Food Processing Locations, Dairies, or Restaurants):

Use 22 Multi-Quat Sanitizer to sanitize pre-cleaned hard non-porous surfaces of food processing equipment, dairy equipment, food utensils, dishes, silverware, glasses, sink tops, countertops, refrigerated storage areas and display equipment and other hard non-porous surfaces in federally inspected restaurants. Prior to application, remove gross food particles and soil by a pre-rinse, pre-scrape or when necessary, a pre-soak. Then thoroughly wash or flush objects with a good detergent or compatible cleaner followed by a potable water rinse before application of the sanitizing solution. Apply a use-solution of 2.5 mL/L of 400 ppm hard water (150 - 400 ppm active quat) or 500 ppm hard water (200 - 400 ppm active quat). Expose surfaces to the solution for 1 minute. Allow equipment to drain thoroughly and air dry.

Restaurant and Bar Rinse - Sanitizing Eating and Drinking Utensils

1. Scrape and pre-rinse utensils to remove excess soil
2. Wash with good detergent or compatible cleaner (see your Ecoclab representative for a recommendation).
3. Rinse with potable water.
4. Sanitize in a solution of 2.5 mL/L of 400 ppm water (150-400 ppm active quat).
5. Drain and air dry.

22 Multi-Quat Sanitizer when used at a dilution of 1:213 or 4.6 mL/L (150 ppm active) is effective to kill *Influenza A virus* on hard surfaces with a 2 minute contact time in the presence of 5% organic soil.

EPA 1677-198

NOTE:

FOR MECHANICAL OPERATIONS: A prepared use solution may not be reused for sanitizing, but may be reused for other purposes such as cleaning.

FOR MANUAL OPERATIONS: Prepare a fresh sanitizing solution as soon as it becomes diluted or soiled.

DO NOT MIX WITH ANYTHING BUT WATER



ECOLAB

Ecoclab Inc., Institutional Division
270 Pasadena Street N.
St. Paul, MN 55102-1189 USA

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ใบสำคัญการขึ้นทะเบียนวัตถุอันตราย

สำนักงานคณะกรรมการอาหารและยา

กระทรวงสาธารณสุข

วันที่ 29 เดือน ธันวาคม พ.ศ. 2558

เลขที่ 643/2553

อนุญาตให้ บริษัท เอ็กโคเลี่ยน จำกัด สัญชาติ -

เลขประจำตัวผู้เสียภาษีอากร 0105529044785

สถานที่เกิดของผู้รับใบสำคัญการขึ้นทะเบียนวัตถุอันตราย ตั้งอยู่เลขที่ 971,973 ชั้น 15 อาคารเพรดิคันทิลทาวเวอร์ หมู่ - จอย -

ถนนเพลินจิต แขวงลุมพินี เขตปทุมวัน กรุงเทพมหานคร 10330 โทรศัพท์ 0 2656 0022 โทรสาร 0 2656 0033

เป็นผู้รับใบสำคัญการขึ้นทะเบียนวัตถุอันตรายชนิดที่ 3

ชื่อทางการค้า 22 มัลติ-ควอท เชนิโซนอร์

22 MULTI-QUAT SANITIZER

ชื่อและปริมาณวัตถุอันตราย (สารสำคัญ)

อัลคิล ไดเมทิลเบนซิลแอมโมเนียมคลอไรด์ (Alkyl dimethyl benzyl ammonium chloride) 3.0 % w/w

ไดดีซิล ไดเมทิลแอมโมเนียมคลอไรด์ (Didecyl dimethyl ammonium chloride) 1.35 % w/w

ไดออกทิล ไดเมทิลแอมโมเนียมคลอไรด์ (Dioctyl dimethyl ammonium chloride) 0.90 % w/w

ออกทิล เดซิล ไดเมทิลแอมโมเนียมคลอไรด์ (Octyl decyl dimethyl ammonium chloride) 2.25 % w/w

ประเภทของการใช้ น้ำเชื้อแบคทีเรีย (ในอุตสาหกรรม)

ลักษณะของวัตถุอันตราย ชนิดของเหลว

ชื่อและที่อยู่ของผู้ผลิต บริษัท เอ็กโคเลี่ยน จำกัด

101/97 นิคมอุตสาหกรรมนวนคร โครงการ 1 หมู่ 20 จอช นวนคร 7 ถนน พหลโยธิน ตำบล คลองหนึ่ง

อำเภอ คลองหลวง จังหวัด ปทุมธานี 12120 โทรศัพท์ 0 2909 7030 โทรสาร 0 2909 2274

ใบสำคัญนี้ออกให้โดยมีเงื่อนไข ดังต่อไปนี้ - กรณีผลิตเพื่อการส่งออกนอกอาณาเขต

- ใบสำคัญการขึ้นทะเบียนนี้ใช้ได้จนถึงวันที่ 1 มกราคม พ.ศ. 2559

ใบสำคัญการขึ้นทะเบียนนี้ออกให้ใช้ได้นับตั้งแต่วันที่ 31 เดือน ธันวาคม พ.ศ. 2554

(ลายมือชื่อ)

(นายอรรถพร ฤกษ์พิบูลย์)

พนักงานเจ้าหน้าที่

ผู้อำนวยการสำนักงานคณะกรรมการอาหารและยา
ปลัดกระทรวงสาธารณสุข



SAFETY DATA SHEET

22 MULTI-QUAT SANITIZER

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	: 22 มัลติ-ควอท แซนิไทเซอร์ 22 MULTI-QUAT SANITIZER
Other means of identification	: Not applicable
Recommended use	: Sanitizer
Restrictions on use	: Reserved for industrial and professional use.
Product dilution information	: 0.52 % - 0.78 %
Company	: Ecolab Ltd. 101/97 Navanokorn Industrial Estate, Klongnueng Klongluang, Pathumtanee 12120 Thailand Telephone : +66-2909-7030 Fax : +66-2909-2274
Emergency telephone	: +1-651-222-5352 (United States)
Issuing date	: 18.03.2016

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Product AS SOLD

Acute toxicity (Oral)	: Category 5
Skin corrosion/irritation	: Category 1
Serious eye damage/eye irritation	: Category 1
Acute aquatic toxicity	: Category 1
Chronic aquatic toxicity	: Category 2

Product AT USE DILUTION

Not a hazardous substance or mixture.

GHS label elements

Product AS SOLD

Hazard pictograms



Signal Word	: Danger
Hazard Statements	: May be harmful if swallowed. Causes severe skin burns and eye damage. Very toxic to aquatic life Toxic to aquatic life with long lasting effects
Precautionary Statements	: Prevention: Wash skin thoroughly after handling. Avoid release to the

SAFETY DATA SHEET

22 MULTI-QUAT SANITIZER

environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Call a POISON CENTER/doctor if you feel unwell. Wash contaminated clothing before reuse. Collect spillage.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Product AT USE DILUTION

Precautionary Statements

: **Prevention:**

Wash hands thoroughly after handling.

Response:

Get medical advice/ attention if you feel unwell.

Storage:

Store in accordance with local regulations.

Product AS SOLD

Other hazards

: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD

Pure substance/mixture

: Mixture

Chemical name

Alkyl (C14 50%; C12 40%; C16 10%) dimethyl
benzyl ammonium chloride
Octyl decyl dimethyl ammonium chloride
ethanol
Didecyl Dimethyl Ammonium Chloride

CAS-No.

68424-85-1
32426-11-2
64-17-5
7173-51-5

Concentration (%)

1 - 5
1 - 5
1 - 5
1 - 5

Product AT USE DILUTION

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

Product AS SOLD

In case of eye contact

: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact

: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed

: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention

SAFETY DATA SHEET**22 MULTI-QUAT SANITIZER**

	immediately.
If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
Protection of first-aiders	: If potential for exposure exists refer to Section 8 for specific personal protective equipment
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

Product AT USE DILUTION

In case of eye contact	: Rinse with plenty of water.
In case of skin contact	: Rinse with plenty of water.
If swallowed	: Rinse mouth. Get medical attention if symptoms occur.
If inhaled	: Get medical attention if symptoms occur.

SECTION 5. FIRE-FIGHTING MEASURES**Product AS SOLD**

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: None known.
Specific hazards during fire fighting	: Exposure to decomposition products may be a hazard to health.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx)
Special protective equipment for fire-fighters	: In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.
Specific extinguishing methods	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Product AS SOLD**

Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
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SAFETY DATA SHEET**22 MULTI-QUAT SANITIZER**

- Environmental precautions** : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up** : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Product AT USE DILUTION

- Personal precautions, protective equipment and emergency procedures** : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions** : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up** : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE**Product AS SOLD**

- Advice on safe handling** : Do not ingest. Avoid contact with skin and eyes. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not get in eyes, on skin, or on clothing.
- Conditions for safe storage** : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
- Storage temperature** : 0 °C to 50 °C

Product AT USE DILUTION

- Advice on safe handling** : Wash hands thoroughly after handling.
- Conditions for safe storage** : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Product AS SOLD****Ingredients with workplace control parameters**

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
ethanol	64-17-3	TWA	1,000 ppm 1,900 mg/m ³	TH OEL

- Engineering measures** : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

SAFETY DATA SHEET**22 MULTI-QUAT SANITIZER**

Eye protection	⌚ Wear chemical splash goggles. Face-shield
Hand protection	⌚ Wear the following personal protective equipment: Standard glove type: Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Laminate film Nitrile Unsupported neoprene PVC Natural rubber Neoprene/natural rubber blend
Skin protection	⌚ Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
Respiratory protection	⌚ When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hygiene measures	⌚ Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Product AT USE DILUTION

Engineering measures	⌚ Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
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Personal protective equipment

Eye protection	⌚ No special protective equipment required
Hand protection	⌚ No special protective equipment required
Skin protection	⌚ No special protective equipment required
Respiratory protection	⌚ No personal respiratory protective equipment normally required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

	Product AS SOLD	Product AT USE DILUTION
Appearance	⌚ liquid	liquid
Color	⌚ red	light pink
Odor	⌚ Disinfectants	Disinfectants
pH	⌚ 7.7, 100 %	7.04
Flash point	⌚ Not applicable	
Odor Threshold	⌚ No data available	
Melting point/freezing point	⌚ No data available	
Initial boiling point and boiling range	⌚ 100 °C	
Evaporation rate	⌚ No data available	
Flammability (solid, gas)	⌚ No data available	

SAFETY DATA SHEET**22 MULTI-QUAT SANITIZER**

Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Relative density	: 0.998
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Autoignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Molecular weight	: No data available
VOC	: No data available

SECTION 10. STABILITY AND REACTIVITY**Product AS SOLD**

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: None known.
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Inhalation, Eye contact, Skin contact
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Potential Health Effects**Product AS SOLD**

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: May be harmful if swallowed. Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Product AT USE DILUTION

SAFETY DATA SHEET

22 MULTI-QUAT SANITIZER

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

Product AT USE DILUTION

Eye contact	: No symptoms known or expected.
Skin contact	: No symptoms known or expected.
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

Toxicity

Product AS SOLD

Product

Acute oral toxicity	: LD50 Rat: > 2,000 mg/kg Test substance: Product
Acute inhalation toxicity	: No data available
Acute dermal toxicity	: LD50 Rabbit: > 5,000 mg/kg Test substance: Product
Skin corrosion/irritation	: Corrosive Test substance: Product
Serious eye damage/eye irritation	: Corrosive Test substance: Product
Respiratory or skin sensitization	: Not a skin sensitizer. Test substance: Product
Carcinogenicity	: No data available
Reproductive effects	: No data available
Germ cell mutagenicity	: No data available
Teratogenicity	: No data available
STOT-single exposure	: No data available
STOT-repeated exposure	: No data available
Aspiration toxicity	: No data available

Ingredients

SAFETY DATA SHEET**22 MULTI-QUAT SANITIZER**

Acute inhalation toxicity	: Alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride 4 h LC50 Rat: > 0.054 mg/l
	Octyl decyl dimethyl ammonium chloride 4 h LC50 Rat: 0.07 mg/l
	ethanol 4 h LC50 Rat: 117 mg/l
	Didecyl Dimethyl Ammonium Chloride 4 h LC50 Rat: 0.07 mg/l

SECTION 12. ECOLOGICAL INFORMATION**Product AS SOLD****Ecotoxicity**

Environmental Effects	: Very toxic to aquatic life
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Product

Toxicity to fish	: No data available
Toxicity to daphnia and other aquatic invertebrates	: No data available
Toxicity to algae	: No data available

Ingredients

Toxicity to fish	: Octyl decyl dimethyl ammonium chloride 96 h LC50 Fish: 1 mg/l
	ethanol 96 h LC50 <i>Pimephales promelas</i> (fathead minnow): > 100 mg/l
	Didecyl Dimethyl Ammonium Chloride 96 h LC50 Fish: 1 mg/l

Ingredients

Toxicity to daphnia and other aquatic invertebrates	: Alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride 48 h EC50 <i>Daphnia magna</i> (Water flea): 0.016 mg/l
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Persistence and degradability

Not Assigned

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

SAFETY DATA SHEET**22 MULTI-QUAT SANITIZER****Product AS SOLD**

Disposal methods

- Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

The product should not be allowed to enter drains, water courses or the soil.

Disposal considerations

- Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

Product AT USE DILUTION

Disposal methods

- Diluted product can be flushed to sanitary sewer.

Disposal considerations

- Dispose of in accordance with local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION**Product AS SOLD**

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport

UN number

- 3082

Description of the goods

- ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compound)

Class

- 9

Packing group

- III

Hazchem Code

-

Environmentally hazardous

- yes

Sea transport (IMDG/IMO)

UN number

- 3082

Description of the goods

- ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compound)

Class

- 9

Packing group

- III

Marine pollutant

- yes

SECTION 15. REGULATORY INFORMATION

The ingredients of this product are reported in the following inventories:

United States TSCA Inventory :

On TSCA inventory

Canadian Domestic Substances List (DSL) :

All components of this product are on the Canadian DSL

Australia Inventory of Chemical Substances (AICS)

not determined

SAFETY DATA SHEET**22 MULTI-QUAT SANITIZER****New Zealand. Inventory of Chemical Substances :**

On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory :

not determined

Japan. ISHL - Inventory of Chemical Substances (METI) :

On the inventory, or in compliance with the inventory

Korea. Korean Existing Chemicals Inventory (KECI) :

On the inventory, or in compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :

On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances in China (IECSC) :

On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Issuing date : 18.03.2016
Version : 1.0
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.