

TVOC

HCHO

(Formaldehyde)



Remediation Services



We all know!

Poor Air quality
compromises health of
occupiers and this leads
to low productivity of
our most valuable asset
“people”.

We
provide complete
service from
Mold inspection to
Mold remediation
with test certificates
from accredited lab.

3

Our Odor treatment process

Addressing TVOC & Formaldehyde (HCHO) Concerns

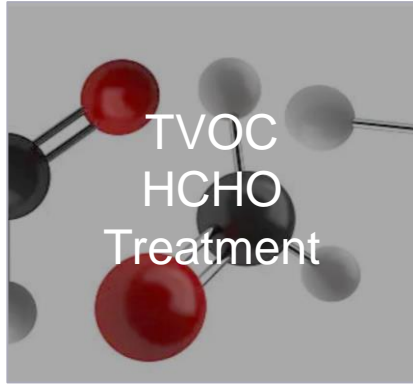
Identify the
source of
Contaminants

Contain &
Treatment or
removal of
contaminated
material

Testing
Air Scrubbing
for residual
contaminants

Step Process

Step 1



Testing Audit Investigation

HVAC Specialist
Chemical Process expertise
Mold Remediation Consultant
Lab Test Managers.

Experienced team for
investigation and analysis.

'be assured'

The independent team at SAPPL
are qualified for carrying out all the
investigative test for mold.

Microbiologist helps us to identify
the mold speciation and also
assist in assessing the root cause
of the issue.

Mold Consultant along with ACMV
Expert help identify the root cause
of the issue and help client to
address the same.



SINGAPORE LABORATORY
ACCREDITATION SCHEME



Number : LA-2018-0677-F

Date of Issue : 05 March 2022

Date of Expiry : 04 March 2026

Certificate of Accreditation

This certifies that

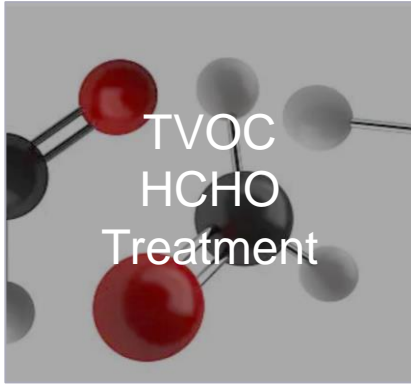
STATS Asia Pacific Pte Ltd
71 Toh Guan Road East
#02-01/02/06, #03-02, #05-03
TCH Techcentre
Singapore 608598

is accredited by the Singapore Accreditation Council to

ISO / IEC 17025 : 2017
for specific scope within the field of

Environmental Testing
as detailed in the attached schedule.

Step 2



Treatment

Understanding of ACMV
Eliminate possible external contamination.

Isolation, containment, use of best tools, Chemicals and Machines for odour treatment

'be assured'

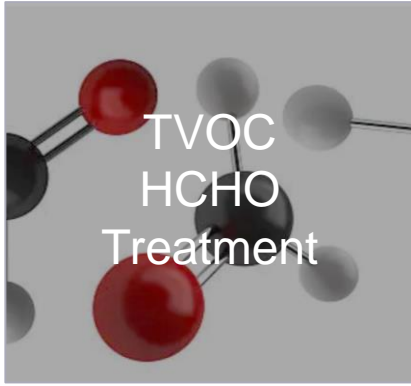
Based on the findings of the lab on the contamination level, the experts will isolate and identify the root cause.

Chemical Absorption filters+
ACMV specialist
together

chart out the treatment and remediation protocol and execute the treatment process with continuous monitoring of the treatment efficacy.



Step 2



Chemicals + Monitoring

Use of approved chemicals that are safe to be used for regular facilities.
Remote Monitoring of IAQ.

'be assured'

1. Right Chemicals
2. Right environment* to make sure chemical are effective during remediation works.
3. Right process to protect the finishes
4. Deploy ECU – Environment Control unit to maintain the environment.
5. Deploy HEPA + UVC Air+ Activated Carbon Scrubbers.
6. Technicians and Specialist
7. Use **Hygiene Controller / IAQsense** for remote operations & monitoring for right efficacy of chemicals and treatment.

MSDS for Safer Chemicals

ActiveShield+ Antimicrobial Coating

ST Building Solutions Pte Ltd
Annex: MSDS

ACTIVE SHIELD⁺

Safety Data Sheet

Dimethyloctadecyl[3-(trimethoxysilyl)propyl]ammonium chloride

Version : V1.0.0.2
Report No. : HCNM2008
Creation Date : 2014/06/07
Revision Date : 2020/01/07
**Prepared according to UN GHS (the 8th revised edition)*

1 Identification of the chemical and supplier

Product identifier

Product Name	Dimethyloctadecyl[3-(trimethoxysilyl)propyl]ammonium chloride
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Antimicrobial and Antifungus.
Uses advised against: None identified.

Details of the supplier

Name of the company	ST Building Solutions Pte Ltd
Address of the company	100, Cross Street, Singapore 049213
Post code	049213
Telephone number	65 6349 8888
Website	www.stbuilding.com
E-mail address	info@stbuilding.com
Emergency phone number	+65 6349 8888
Emergency phone number	+65 6349 8888

2 Hazards identification

Hazard classification according to GHS

Flammable Liquids	Can
Skin Corrosion/Irritation	Can
Serious Eye Damage/Irritation	Can
Specific Target Organ Toxicity (Single Exposure)	Can
Hazardous To The Aquatic Environment – Short-Term (Acute)	Can
Hazardous To The Aquatic Environment – Long-Term (Chronic)	Can

3 Composition/information on ingredients

Component	Cas No.	EC No.	Concentration (weight percent, %)
Dimethyloctadecyl[3-(trimethoxysilyl)propyl]ammonium chloride	27688-42-0	248-595-8	<1.5%
Isopropylalcohol	67-63-0	200-503-7	<1.5%
3-Chloropropyltrimethoxysilane	2530-87-2	219-787-9	<1.5%

4 First aid measures

Description of first aid measures

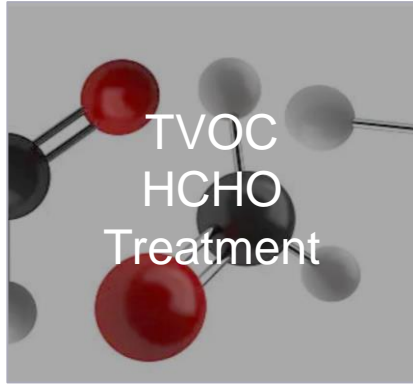
General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if not immediately relieved.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if still uncomfortable. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim is exposed or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately. Treat as if medical assistance are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.
Protecting of first-aiders	

Most important symptoms and effects, both acute and delayed

1. Substance accumulation in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

MSDS Information - Prepared According to UN GHS (the 8th Revised Edition)
Contact person for details : Mahe M@STBuildingSolutions.sg

Step 3



Post Treatment Test

Lab test to ensure the remediation works are effective and complete.

Remote Monitoring of IAQ.

'be assured'

1. External accredited lab to conduct post treatment test.
2. Internal experts to monitor and ensure treatment effectiveness
3. Option to Deploy Chemical Air Scrubbers for addressing residual chemical release (when contaminants are below advisable limits) to avoid accumulation of contaminants over a period of time.



Specialist

Mold Remediation Specialist

- Mahesh M
- 20 years+ experience in Mold remediation. Consultant to projects in Singapore and overseas. Hotels (Over 5,000 rooms remediation), Museums, Schools, Libraries. Shopping malls, residential units ..
- ACMV experience, trouble shooting and audits.
- Familiar with IOT, Automation, BMS, Chillers, ACMV equipment.

Microbiologist

- Mr Lei Zei Pei/ Mr Kumar
- Experienced in identifying the mold species and identifying the causes of mold growth.
- Collectively carried out over 100 audits in Singapore.

Environment Consultant

- Elizabeth Lee
- Over 29 years of experience in the chemical, biological and environmental field. Had undertaken numerous site investigation for air, soil, groundwater for private and government bodies. Familiar with the deployment of different analytical methods and tools for failure analysis, microbial contamination on building materials , poor outdoor/indoor air quality, paint failure and environmental site assessments.

ACMV Expert

- Sr Consultant
- Over 25 years of Air Conditioning design and build. Experienced root cause analysis for ACMV systems.
- Design of chillers, AHU, FCU, Load calculation and analysis.

Mold Remediation + Lab Team

- Over 10 lab technicians
- Over 20 mold remediation technicians.
- Can handle about 30 rooms per day.

Machines and Equipment

- Over 50 equipment to handle over 50 rooms per day
- Remote monitoring and data logging.

Experience

Our consultants have more than 15 years experience in the field of Mold Audits and Remediation works.

Our consultant team comprise of HVAC Engineers, Microbiologist, Lab Technicians and Facility Management experts.

Their collective experience in projects which involves, Mold audits, Mold remediation works, root cause analysis, IAQ assessment, retrofit for ACMV, environment assessment, consulting and advisory services are mentioned for reference.

One Marina Bay Residency	DBS Bank	CEC Changi Exhibition Centre	F1 Pit Building
Marina Bay Sands (MBS)	RWS Sentosa	SATS Food Catering	National Library
Hotel Shangri-la	Raffles City Mall	Singapore State & S. Courts	Mt Elizabeth Hospital
Raffles Hospital	Le Grove Serviced Apartment	Hotel Park Royal	National University of Singapore
Hotel Jen	Singapore Expo	Hotel Telegraph	Museum Indonesia
Hotel Amara Sri Lanka	Hotel Link	XCL Academy	Sunray Woodcraft

more....

Certificate

Post Treatment test



Certification - accredited lab and advisory by experts.

OUR SERVICES

WHY US?



ENVIRONMENTAL

1. Indoor Air Quality Assessment
2. Green Label Testing
3. Industrial Hygiene Monitoring
4. Inventory of Hazardous Materials
5. Ambient Air Monitoring
6. Environmental Baseline Studies

GEO-ENVIRONMENTAL SERVICES

CHEMICAL & BIOLOGICAL SERVICES

1. Airborne Molecular Contamination in Cleanrooms
2. Failure Analysis of Materials / Nano- Materials

CIVIL & GEOTECHNICAL SERVICES

1. Concrete Evaluation & Repair
2. Mining Infrastructure
3. Project Management & Site Remediation
4. Quarry, Borrow Pits & Construction Materials
5. Road, Rail & Bridge Infrastructure
6. Residential & Commercial Development

STATS Asia Pacific employs the latest technologies and methodologies, giving you accurate and reliable results. Our staff are trained to the highest standards and have in-depth knowledge of their fields and your business needs. We provide innovative, high quality and consistent training and development solutions for every level of your organisation. With proper training and advanced knowledge, businesses and individuals are more likely to be motivated, thus, an increase in the overall productivity.

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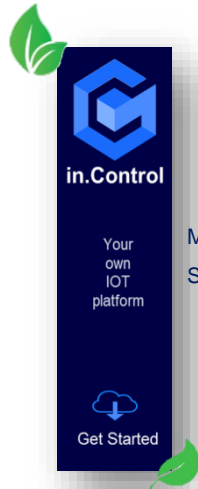
A handwritten signature in black ink, likely belonging to the Chairman of the Singapore Accreditation Council, positioned above a horizontal line.

Chairman

This Certificate is awarded subject to the organization's compliance with the stated criteria and terms and conditions laid down by the Singapore Accreditation Council.

This Certificate may not be reproduced except with the written permission of the Chairman.

A step towards
Sustainability,
Net Zero buildings.
Helping facilities
achieve
SLE/ ULEB targets



Monitor & Control
Set alerts & be proactive

More Details on
www.singaporelabs.sg



If you are facing any issues in regard to IAQ (Indoor Air Quality) or Humidity, Air-conditioning, call our consultants. They would have probably solved a similar problem in the past!

Our team would be happy to share their experience.

Consultant

+65 9634 8123

Mahesh.M@STbuildingsolutions.sg

We provide complete IAQ Eco System



ActiveAir Hygiene Control

Ready Solutions

- ✓ Hygiene Controllers
- ✓ IAQ Sense
- ✓ Dust-Q
- ✓ Dust Control Units
- ✓ Air Purification
- ✓ MCU – Mold Control Units
- ✓ ECU – Environment Control Units
- ✓ Dehumidifiers
- ✓ Ventilation
- ✓ HEPA Fresh Air Fans
- ✓ HEPA Exhaust Fans
- ✓ Mold Remediation



[in.Control]
One IOT platform for smart and sustainable facility