

Information Booklet



**Kobus Dekker Occupational
Hygiene Consultancy (Pty) Ltd**

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COMPANY OVERVIEW

Kobus Dekker Occupational Hygiene Consultancy cc (KDOHC) was established by Kobus Dekker in 2007. The Company converted to a (Pty).

KDOHC provides specialized services in Occupational Hygiene Monitoring to mining industries throughout Africa. All our services are rendered in accordance with current legislation and guidelines issued by the DMR and DoL.

KDOHC is SANAS Accredited for Gravimetric analysis of Respirable and Inhalable Dust and Alpha-Quartz Analysis of Respirable Dust by XRD.

facility accreditation was given in accordance with the recognized International Standard ISO/IEC 17025:2017.



AIM

To continually improve the quality of service to our clients by:

Keeping abreast of all new developments in our fields of specialization (both legal and technical.

Maintaining close contact with our clients, obtaining and responding positively and timeously to feedback from them.

Employing adequately qualified personnel that deliver the service of the highest quality.

Conducting business in a responsible and ethical manner at all times.

“TO DILIGENTLY MAINTAIN A SERVICE OF EXCELLENCE IN ALL AREAS OF THE KDOHC ENVIRONMENT’

Our Values



MUTUAL RESPECT



STRONG
RELATIONSHIPS



INTEGRITY



DILIGENT



STEADFAST



UNRELENTING



HIGH PRINCIPLED



TRUE-HEARTED

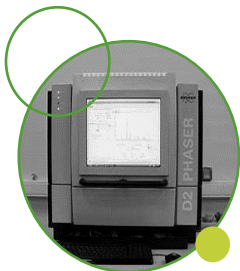


EFFECTIVE



HONEST

SERVICES OVERVIEW



Chemical Analysis Laboratory Services

We are SANAS accredited to conduct:

Gravimetric analysis of Respirable and Inhalable Dust and Alpha-quartz analysis of Respirable Dust by XRD.



Dust Suppression Services

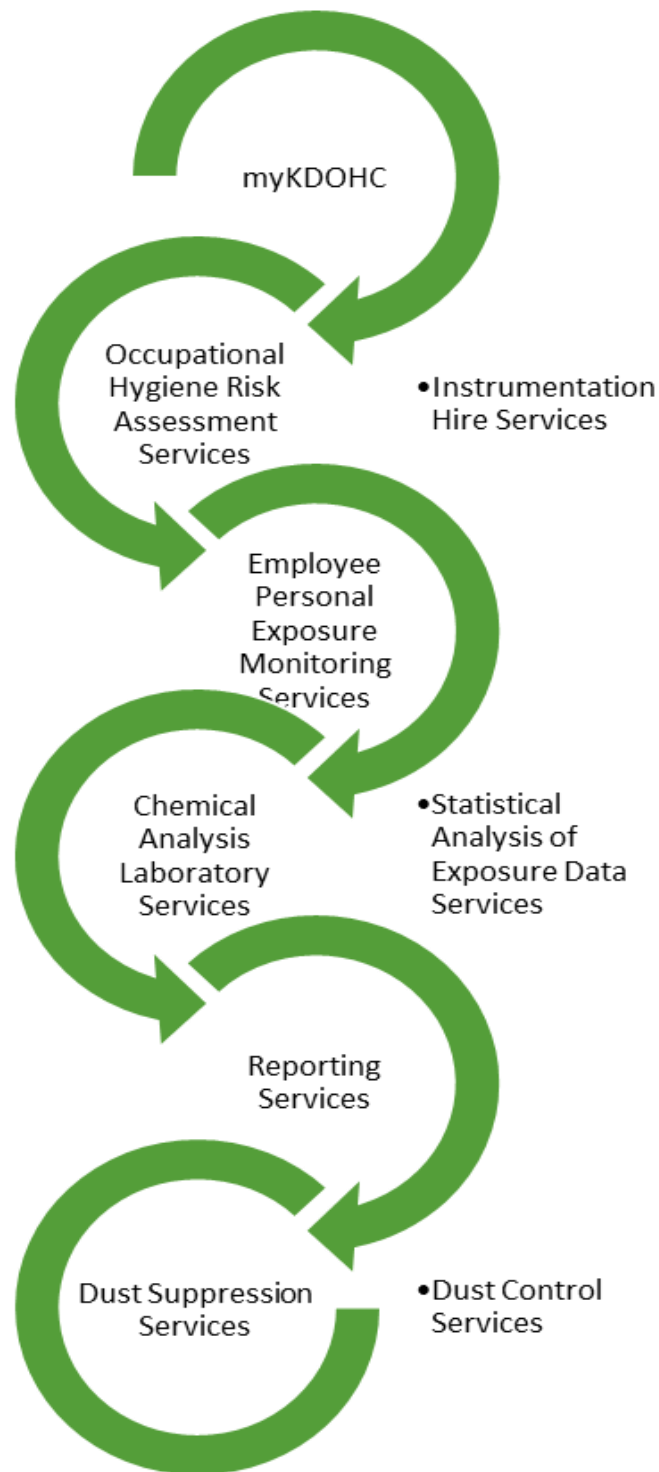
Our systems are based on our uniquely patented design (Patent Number: 2010/07163). The purpose of installation of the dust suppression system is to capture airborne dust introduced into the air and to “damp” the area to ensure that dust spillages present is restricted from becoming airborne.



Occupational Hygiene Risk Assessment Services

KDOHC (Pty) Ltd offer a wide range for Occupational Hygiene related Risk Assessments services for clients in the mining industry, such as:

- ☐ Qualitative Baseline Risks Assessments
- ☐ Quantitative Baseline Risk Assessments
- ☐ Issue Based Risk Assessments



OUR SERVICES



Real-time Client Interaction Software

myKDOHC

The **myKDOHC** client portal is utilized to manage current and future collaboration and trading with clients.

This will enable KDOHC(Pty) Ltd to capture client detail, load reports and laboratory results as well as submit invoices electronically for payment.

*The **myKDOHC** client portal allows clients to:*

- ☐ Register on the **myKDOHC** client portal.
- ☐ See reporting (e.g., Dust suppression system maintenance reports) in “real time”.
- ☐ See laboratory analysis certificates and reports as soon as they are available.
- ☐ Download reports, e.g., Analytical certificates, etc.
- ☐ View and download invoices submitted for payment.
- ☐ View a summary of the client’s account i.e., whether the account is in “good standing”.



myKDOHC



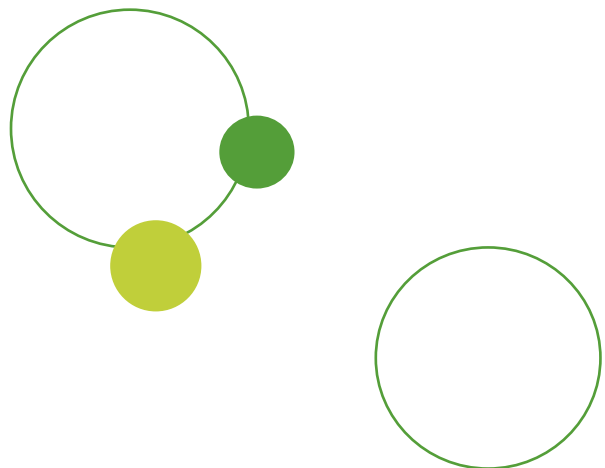
Occupational Hygiene Risk Assessment Services

KDOHC (Pty) Ltd offer a wide range for Occupational Hygiene related Risk Assessments services for clients in the mining industry, such as:

- ☐ Qualitative Baseline Risks Assessments
- ☐ Quantitative Baseline Risk Assessments
- ☐ Issue Based Risk Assessments

The following hazards are assessed during these risk assessments:

- ☐ Exposure to Dust: Total dust, Respirable dust, Respirable Silica Dust
- ☐ Exposure to Oils, Greases, Solvent, VOCs and Other Chemicals and Gases
- ☐ Exposure to Diesel Particular Matter (DPM)
- ☐ Exposure to Acid Mist
- ☐ Exposure to Welding Fumes
- ☐ Exposure to Biological Hazards: Malaria, HIV, TB, Food Preparation, Uranium poisoning due to ingestion, legionella, water quality
- ☐ Exposure to Occupational Noise
- ☐ Ergonomics: Manual handling (overstraining, back injury), Awkward body posture
- ☐ Exposure to Vibration (hand-arm and whole-body)
- ☐ Exposure to UV Radiation
- ☐ Exposure to Thermal Stress (Heat and Cold Stress)
- ☐ Exposure to Ionizing Radiation
- ☐ Etc.

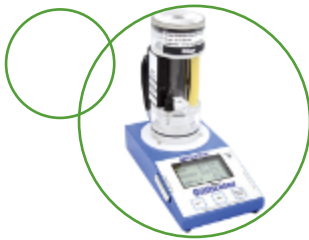




Employee Personal Exposure Monitoring Services

KDOHC (Pty) Ltd offer the following Employee Personal Exposure Monitoring Services:

- ☐ Supply all calibrated instrumentation and consumables required to render the service (also see **Instrumentation Hire Services**)
- ☐ Deliver and collect the sampling equipment from a client site at a pre-arranged frequency
- ☐ Conduct chemical analysis of collected samples (also see **Chemical Analysis Laboratory Services**)
- ☐ Publication of near real-time analysis results (also see [myKDOHC](#))
- ☐ Compile daily, weekly monthly and quarterly reports (also see **Reporting Services**)





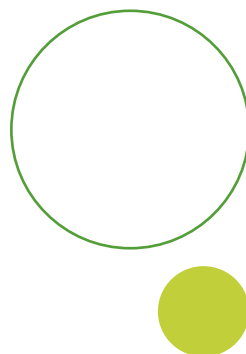
Instrumentation Services

KDOHC (Pty) Ltd offer the following equipment and instrumentation hire services:

- ☐ Supply of Pre- and Post-weighed airborne pollutants (ASP) sample media.

Rent and downloading of:

- ☐ Personal noise dosimeters
- ☐ Sound Level Meters (Type 1 sound level meter is accompanied by a qualified operator)
- ☐ Calibrators for Sound Level Meter and Personal noise dosimeters
- ☐ ABP sampling trains including pump flow calibration before sampling and flow check after sampling
- ☐ Lux meters
- ☐ Heat Stress Meters
- ☐ Whole-Body-Vibration (WBV) and Hand-Arm-Vibration (HAV) Monitor (Accompanied by qualified operator)
- ☐ Diesel Exhaust Emission (DEE) as Diesel Particulate Matter (DPM) Monitor (Accompanied by qualified operator)
- ☐ Implementation of sample tracking system (delivery and collection of equipment)
- ☐ We deliver and collect equipment in selected areas.

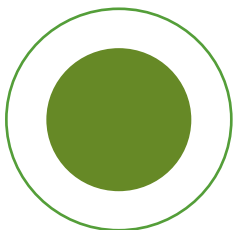
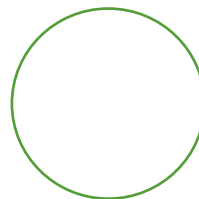




Reporting Services

KDOHC (Pty) Ltd offer the following reporting, on either a once-off services or as a continues services to long term contracted clients:

- ☐ Daily reporting off results on the **myKDOHC** Client portal
- ☐ Monthly exposure results reports
- ☐ Monthly adherence to sampling schedule reports
- ☐ Quarterly DMR Personal Noise Exposure reports
- ☐ Annual DMR Personal Noise Exposure reports
- ☐ Quarterly DMR Personal Exposure to Airborne Pollutants reports
- ☐ Annual DMR Personal Exposure to Airborne Pollutants reports
- ☐ Annual Statistical Analysis of Personal Exposure to Airborne Pollutants reports





Statistical Analysis of Exposure Data Services

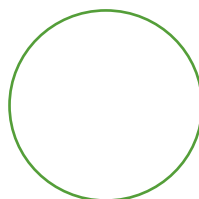
Statistical Analysis of Airborne Pollutants personal exposure sampling program results is conducted in terms of the methodology described in the Department of Mineral Resources (DMR) Guideline for the Compilation of a Mandatory Code of Practice for an Occupational Health Programme on Personal Exposure to Airborne Pollutants.

KDOHC (Pty) Ltd will assist the client with their statistical analysis of:

- ❑ All accepted personal exposure airborne pollutant personal exposure data collected during a specific annual personal exposure sampling period (i.e., exposure data for one year); and
- ❑ Express an opinion on the correctness of the current Homogeneous Exposure Group (HEG) structures, based on the data statistical analysis results only.

The following will be conducted for each Homogenous Exposure Group (HEG) exposure data set, per reported Airborne Pollutant:

- ❑ An indication of the adequacy of the number of samples collected,
- ❑ A statistical test to determine if the data 90th Percentile value and the Mean value fall within the same Classification Band,
- ❑ A statistical test to determine if 95% of the samples fall within 2 Standard Deviations from the Mean value, and
- ❑ A summary finding of the above, to indicate if the HEG has been statistically correct defined.





Dust Suppression Services

KDOHC (Pty) Ltd has over the years developed, installed and maintained different dust suppression systems.

Our systems are based on our uniquely patented design (Patent Number: 2010/07163). The purpose of installation of the dust suppression system is to capture airborne dust introduced into the air and to “damp” the area to ensure that dust spillages present is restricted from becoming airborne.

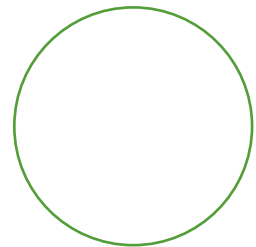
These systems are specifically designed and commissioned as per the client’s need.

A few examples of systems already designed and installed at various clients, are:

- ☐ Intake Airway Dust Suppression Systems
- ☐ Automated Footwall Treatment Dust Suppression Systems
- ☐ Shaft Barrel Dust Suppression
- ☐ Conveyor Belt Dust Suppression
- ☐ Crusher Dust Suppression Systems
- ☐ Transfer Tip Dust Suppression systems

The exact design is dependent on several variables, such as:

- ☐ Haulage dimensions
- ☐ Ventilating air speed
- ☐ Humidity and temperature of ventilating air
- ☐ Type of traffic in haulage
- ☐ Traffic density
- ☐ Conveyor belt dimensions and speed
- ☐ Transfer and Tip dimensions
- ☐ Etc.



Interconnection of the dust suppression systems with a variety of commercially available real-time aerosol monitors can be done to ensure automatization and control-on-demand functionality. Full Dust Suppression System Maintenance options are available, please discuss your needs with us.





Dust Control Services

Roadway Dust Control

KDOHC (Pty) Ltd is an Agent for the distribution and application of the ADVENSOL range of dust suppression systems.

We make exclusively use of the AS-B2 Dust Suppression Chemical in our water spray dust suppression systems

ADVENSOL provides environmental solutions to the industrial, mining and agricultural sectors and is the owner of the AS-B2 and AS-D1 Dust Suppression Chemical.

The AS-B2 Dust Suppression Chemical is:

- ☐ A Dust Suppression, Road Stabilizer and water extending product,
- ☐ A water-soluble Polymer and Surfactant blend,
- ☐ Anionic charged to promote agglomeration of dust particles,
- ☐ Bio-degradable and Environmentally friendly:
 - Water-saving, less water required to wet surface area,
 - Water-saving, increasing watering intervals (treated area remains damp for longer),
 - Colourless & Odourless resulting in less throw-up under vehicles, no markings or clogging on vehicles and equipment,
 - Rehabilitation of soil is immediately possible after use by ripping up surface and no discarding required.

Cost effective:

- ☐ Less water required,
- ☐ Less water cart and grader hours required (diesel & operational hours savings)
- ☐ Increases efficiency on production,
- ☐ Increases tyre & equipment life, with less wear and tear on vehicles and equipment,
- ☐ Completely integrated and self-manageable.
- ☐ Safe and user-friendly.





Training Services

KDOHC (Pty) Ltd offer the following training services in collaboration with Right2Skill:

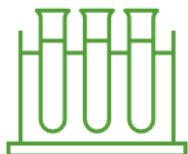
- ☐ Noise - Legal Requirements, Measurement and Reporting
- ☐ Airborne Pollutants - Issue, retrieval and calibration of sampling train

In-house Training Services:

- ☐ Annual Statistical Analysis of Airborne Pollutants Personal Exposure Data as per method described in the DMRE COP
- ☐ Introduction to Occupational Hygiene (Focused towards first time clients in Africa). Subject covered include:
 - Introduction and Definitions
 - Anatomy, Physiology and Pathology
 - Hazard Identification and Risk Assessment
 - Airborne Pollutants
 - Dust Control
 - Cost Benefit Analysis Control
 - Ergonomics
 - Introduction to Noise
 - Properties of Sound Waves
 - Noise Measurement and Survey
 - Noise Control
 - Vibration

IMPORTANT NOTES:

- ☐ KDOHC (Pty) Ltd is NOT registered with any association or professional institution to conduct any training
- ☐ Training is provided and structured based on the specific need/s of the client
- ☐ Certificate of Attendance is issued to Course Participants



Chemical Analysis Laboratory Services

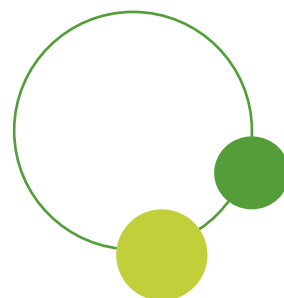
KDOHC (Pty) Ltd is a SANAS accredited laboratory with accreditation number T0926.

We are SANAS accredited to conduct:

- ☐ Gravimetric analysis of Respirable and Inhalable Dust
- ☐ Alpha-quartz analysis of Respirable Dust by XRD

THE FOLLOWING IN-HOUSE NON-ACCREDITED SERVICES ARE ALSO PROVIDED (ACCREDITATION IN PROCESS):

- ☐ Alpha-quartz analysis of Respirable Dust by IR (Direct-on-filter)
- ☐ Alpha-quartz analysis of Respirable Dust by IR (KBr Pellet)
- ☐ Long Lived Alpha on air filters – Gross alpha/beta activity analysis by Rad Eye HEC
- ☐ NORM in solids – Analysis of K-40, U-238 and Th-232 in solids using High Energy Gamma Spectrometry
- ☐ Dust fall out – Insoluble PM (ASTM D 1739)
- ☐ Dust fall out – Soluble PM (ASTM D 1739)
- ☐ Microbiological SWAB – Total Plate Count
- ☐ Microbiological SWAB – Total Coliforms
- ☐ Microbiological SWAB – E. coli-Escherichia coli
- ☐ Water Bacteriological (SANS 241)
- ☐ Water Chemical Comprehensive (SANS 241)
- ☐ Water Chemical Abbreviated (SANS 241)



At KDOHC Laboratory we strive to provide accurate and reliable results and guarantee that results will be available to our clients within 5 working days after receiving the sample media.

We also provide a full service where we can assist the client with preparation of sampling trains, including sampling pumps and sample media, to be delivered and collected from the clients site (at a nominal fee).

Please also contact us for any chemical analysis, through our extensive network of accredited service providers.

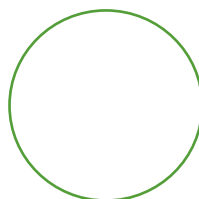


Approved Inspection Authority

In collaboration with LenExCo, the following services can be offered in terms of the Occupational Health and Safety Act. (No. 85 of 1993):

- ☐ Health Risk Assessments;
- ☐ Illumination Surveys;
- ☐ Indoor Air Quality Ventilation Surveys;
- ☐ Ventilation Surveys;
- ☐ Noise Monitoring;
- ☐ Personal Noise Sampling;
- ☐ Perimeter (environmental) Noise Monitoring;
- ☐ Hazardous Chemical Substances Sampling/Monitoring;
- ☐ Asbestos identification, monitoring and site clearance;
- ☐ Lead Sampling;
- ☐ Facilities Assessments;
- ☐ Microbiological Sampling;
- ☐ Thermal Stress Surveys;
- ☐ Water Sampling;
- ☐ Soil Sampling;
- ☐ Ergonomics Assessments;
- ☐ Vibration Assessments and Monitoring;
- ☐ SHEQ Services Solutions;

LenExCo (Pty) Ltd is a privately-owned company established by an experienced Registered Occupational Hygienist. They are SANAS Accredited in terms of SANAS 17020.



CONTACT US

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