



employment & labour

Department:
Employment and Labour
REPUBLIC OF SOUTH AFRICA



South African Institute of
Occupational Safety and Health

South African Institute of Occupational Safety and Health

Comments

Draft Lead Regulations 2024

Government Gazette R.4437 No. 50203 - 23 March 2024

The new regulations do an outstanding job of updating regulatory flow of risk assessment / air monitoring / medical screening / medical surveillance, which Saioosh would like recognise and commend the Department on. That said, there are a number of significant gaps:

1. The gap between the expansive scope of 'Lead Work' and limiting the classification of Lead for 3 CAS numbers. This would mean that the many other forms of lead which may be present in Lead Work would be out of scope due to not being classified. This doesn't adequately protect worker health;
2. The lack of GHS compliance requirements, which is reflected by none of the definitions to enable GHS. Additionally, GHS has a number of other touchpoints, including, the lack of integration of the supply chain flow which is included in the RHCA. i.e. , manufacturer, importer, supplier or retailer. For example, it would be possible to transport Lead without the need to comply with the UN TDG, which is surprising.
3. Order / flow of headings throughout the draft regulation should align with RHCA, which aligns to the human factors (ergonomics) approach.

It is recommended that the full scope of GHS be introduced into these regulations, in the same way that it is reflected in the RHCA, which has recently been published for comment.

Failure to adequately classify and regulate harmful substances contradicts the broad objectives of the Occupational Health and Safety Act which is to provide for the health and safety of persons at work, the health and safety of persons in connection with the use of plant or machinery, and the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work. Any contradiction with the stated objectives of the Act could be construed as irrational.

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	1. Definitions “action level” means blood lead concentrations that exceed the levels provided in Table 1 of Annexure B;		
	“action level for airborne lead” means the airborne concentration of lead exceeding 50% of the OEL;		
	“competent person” means a person in relation to this regulation, who; has, in respect of the work or task to be performed, the required knowledge, training and experience and, where applicable, qualifications specifically including appropriate content on lead, lead work or related tasks; Provided that, where appropriate qualifications and training are registered in terms of the National Qualifications Framework Act, 2008 (Act No. 67 of 2008), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and the regulations, made under the act, applicable to the scope of work performed;		
	“chief director, provincial operations” means the chief director, provincial operations as defined in the General Administrative Regulations;		
1. Definitions "approved lead inspection authority" means an approved inspection authority for the – (a) monitoring of lead concentrations in the air; or (b) analysis of blood lead or urinary lead concentrations;			

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
"exposed" means exposed to lead while at the workplace and 'exposure' has a corresponding meaning;	"exposed" means contact through any route of entry whilst at the workplace to lead, quantified as the amount of lead available at the exchange boundaries of the worker and available for absorption and includes potential, accidental or possible exposure;		
"general administrative regulations" means the General Administrative Regulations published under section 43 of the Act under Government Notice No. R.1449 of 6 September 1996;	"General Administrative Regulations" means the General Administrative Regulations published under section 43 of the Act under Government Notice No. R.1449 of 6 September 1996;		
"health and safety standards" means the health and safety standards that have been incorporated into these Regulations under section 44 of the Act;			
"hsg 173" means the Monitoring Strategies for Toxic Substances, HSG 173, published by the Health and Safety Executive of the United Kingdom;			
"intake" includes inhalation, ingestion and any other means of absorption;	"intake" includes inhalation, ingestion and any other means of absorption;		
"lead" means lead, lead alloys and lead compounds that can be absorbed in any way by any person;	"lead" means lead, lead alloys and lead compounds that can be absorbed in any way by any person;		
	"lead containing product" "means any product used, handled or stored in a form in which it can be inhaled, ingested or absorbed;	Rather use the word "lead" than "it".	"lead containing product" "means any product used, handled or stored in a form in which lead can be inhaled, ingested or absorbed;
"lead paint" means any paint, primer, paste, spray, stopping, filling or other material used in painting, which, when treated in accordance with the health and safety standards, yields to an aqueous solution of hydrochloric acid a quantity of soluble lead compound exceeding five percent of the dry weight of the portion taken for analysis when calculated as lead monoxide;	"lead paint" means any paint, primer, paste, spray, stopping, filling or other material used in painting, which, when treated in accordance with the health and safety standards, yields to an aqueous solution of hydrochloric acid a quantity of soluble lead compound exceeding five percent of the dry weight of the portion taken for analysis when calculated as lead monoxide;		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	“lead work” means; (a) work that exposes a person to lead dust or lead fumes arising from the manufacture or handling of dry lead compounds, (b) work in connection with the manufacture, assembly, handling or repair of, or parts of, batteries and radiators containing lead that involves the manipulation of dry lead compounds, or pasting or casting lead, (c) dismantling batteries containing lead for recycling, (d) melting, casting or spraying lead metal or alloys, (e) recovering lead from its ores, oxides or other compounds by thermal reduction processes, (f) mechanical abrasion of metal plant, machinery or products, containing lead or lead alloys or the abrasion of any surface painted with lead containing paint, (g) electric arc, oxyacetylene, plasma arc or a flame that is applied to the surface of metal coated with lead or paint containing lead, (h) confirmatory laboratory tests for lead, lead compounds or lead alloys, (i) spray painting with lead containing paint, (j) manufacture, test or use of detonators, ammunition or other explosives that contain lead, (k) lead and lead alloy foundry processes, (l) work where lead is produced, processed, used, handled or stored in a form in which it can be inhaled, ingested or absorbed.		
"measurement programme" means a programme according to the monitoring strategy as contemplated in HSG 173 and OESSM;			

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	" medical certificate of fitness " means a written statement issued by an occupational health practitioner, in which an employee's medical fitness to perform a function is expressed;		
	" medical screening " means the systematic application of tests or inquiry to identify employees at risk of a specific disorder caused by exposures in the workplace, identifying potential health effects before employees exhibits symptoms;		
" monitoring " means the planning and carrying out of a measurement programme and the recording of the results thereof;	" monitoring " means the planning, carrying out and recording of the results of a measurement programme;		
" occupational exposure limit for lead, in the case of tetra-ethyl lead ", means an exposure limit of 0,10 mg lead per cubic metre of air, measured in accordance with a health and safety standard;	" occupational exposure limit for lead, in the case of tetra-ethyl lead " means an exposure limit of 0,10 mg lead per cubic metre of air, measured in accordance with a health and safety standard;	Noted that these regulations do not follow the RHCA approach of doubling the ACGIH TLV (2xOEL) and the wording of the ACGIH booklet. Additionally, lead chromate does not have an OEL as is provided for in ACGIH.	Mirror ACGIH both in terms of the OEL's that are given and the limits (2xOEL).
" occupational exposure limit for lead, other than for tetra-ethyl lead ", means an exposure limit of 0,15 mg lead per cubic metre of air, measured in accordance with a health and safety standard;	" occupational exposure limit for lead, other than for tetra-ethyl lead " means an exposure limit of 0,15 mg lead per cubic metre of air, measured in accordance with a health and safety standard;		
" oel " or ' occupational exposure limit ' means a limit value set by the Minister for a stress factor in the workplace;	" OEL " or " occupational exposure limit " means a limit value set by the Minister, which represents the airborne concentration for lead at an 8-hour Time weighted Average;		
" oessm " means the Occupational Exposure Sampling Strategy Manual, published by the National Institute for Occupational Safety and Health (NIOSH), United States of America: Department of Health, Education and Welfare;			

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
" provincial director " means the provincial director as defined in regulation 1 of the General Administrative Regulations;			
" respiratory protective equipment " means a device which is worn over at least the mouth and nose to prevent the inhalation of air that is not safe and which furthermore conforms to a standard approved by the Minister;	" respiratory protective equipment " means a type of personal protective equipment, which is a device used as form of control, including respirators which filter the air to remove harmful hazardous chemical agents, and breathing apparatus which supply clean air for employees to breathe and conforms to the technical requirements to obtain CE or NIOSH marking and have fulfilled the requirements of the SANS 10338 Homologation of Respiratory Equipment;		
" respirator zone " means a respirator zone contemplated in regulation 9(a);	" respirator zone " means an area where a respirator is used during normal operations, in which the concentration of airborne lead exceeds the OEL;		
	" return to lead work " means blood or urinary lead concentrations as provided in Table 1 and Table 2 of Annexure B, at which employees may resume lead work;		
" sabs 0228 " means the Code of Practice for the Identification and Classification of Dangerous Substances and Goods, SABS 0228, published by the South African Bureau of Standards (SABS);			
" sabs 0229 " means the Code of Practice for Packaging of Dangerous Goods for Road and Rail Transportation in South Africa, SABS 0229, published by the South African Bureau of Standards (SABS);			
" sabs 0400 " means the Code of Practice for the Application of the National Building Regulations, SABS 0400, published by the South African Bureau of Standards (SABS);			
" sabs sm 1164 " means the Standard method for the determination of lead (inorganic and tetra-alkyl) in the workplace air by atomic absorption			

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
and spectrophotometry, SABS SM 1164, published by the South African Bureau of Standards (SABS);			
	“SEG or Similar exposure group” means one or more employees having the same general exposure profile, because of the similarity and frequency of the tasks performed, the materials and processes with which they work, the controls in place as well as the similarity of the way they perform tasks;		
	"significant exposure to lead" means employees who are or may be exposed to airborne lead concentrations exceeding 50% of the occupational exposure limit and where there is a substantial risk of exposure through other exposure routes;		
	“suspension level” means blood and urinary lead concentrations as provided in Table 1 and 2 of Annexure B, at which employees are temporarily removed from lead work to reduce exposure;		
	“tetra-alkyl lead” means tetra-ethyl lead or tetra methyl lead;	Suggest changes to “tetra-alkyl lead”	“tetra-alkyl lead” means is a class of compounds rather than a specific substance and refers to organolead compounds containing four alkyl groups, including tetra-ethyl lead and tetra methyl lead, bonded to a central lead atom.
"the act" means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).	“the Act” means the Occupational Health and Safety Act, 1993 (Act No.85 of 1993) as amended;		
	“vulnerable employees” means an employee who is at a higher risk of injury, disease or complications caused by exposure to lead.		
		Should include definition for “UN Transport of Dangerous Goods”	“UN Transport of Dangerous Goods” means the UN Recommendations on the Transport of Dangerous Goods Model Regulations Volumes 1 and 2 and, which are guidance documents developed by the United Nations to harmonize dangerous goods transport regulations, as

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
			may be updated from time to time, commonly known as the UN Orange Book;
			“UN IMO International Maritime Dangerous Goods Code” means the International Maritime Organisation, International Maritime Dangerous Goods (IMDG) Code, which was developed as an international code, as an agency of the United Nations, for the maritime transport of dangerous goods in packaged and bulk form, with particular reference to the segregation of incompatible substances, as may be updated from time to time;
			“UN Globally Harmonized System” or “GHS” means the International Maritime Organisation, International Maritime Dangerous Goods (IMDG) Code, which was developed as an international code, as an agency of the United Nations, for the maritime transport of dangerous goods in packaged and bulk form, with particular reference to the segregation of incompatible substances, as may be updated from time to time;
			“UN Number” means the HCA four figure identification number in the UN Transport of Dangerous Goods Model regulations, as may be updated from time to time;
			“UN Proper Shipping Name” means the HCA name in the UN Transport of Dangerous Goods Model regulations, most accurately describing the goods, as may be updated from time to time;
2. Scope of application (1) Subject to subregulation (2), these Regulations shall apply to every employer and self-employed person at a workplace where lead is produced, processed, used, handled or stored in a form in which it can be inhaled, ingested or absorbed by any person in that workplace. (2) Regulations 4(1), 4(2), 4(3), 4(4), 4(6), 6(2), 7, 8, 10(c), 10(d), 10(f), 11(2)(f) and 12(6) shall not apply in the case of self-employed persons.	2. Scope of application (1) Subject to subregulation (2), these regulations must apply to every employer and self-employed person at a workplace where lead work takes place and lead can be inhaled, ingested or absorbed by any person in that workplace. (2) Regulations 5(1), 5(2), 5(3), 5(4), 5(5), 8, 9, 11(1)(a)(i),(ii), (iii) and (iv), 12(4)(a), 12 (4)(d) and 13(6), 13(7) must not apply in the case of self-employed persons.	Shall is the correct word vs ‘must’ as must does not work grammatically well.	(1) Subject to subregulation (2), these regulations shall apply to every employer and self-employed person at a workplace where lead work takes place and lead can be inhaled, ingested or absorbed by any person in that workplace. (2) a manufacturer, importer, supplier or retailer of lead that is intended for use at a workplace; (3) Regulations 5(1), 5(2), 5(3), 5(4), 5(5), 8, 9, 11(1)(a)(i),(ii), (iii) and (iv), 12(4)(a), 12 (4)(d) and 13(6), 13(7) must not apply in the case of self-employed persons.

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
3. Exposure to airborne lead Subject to regulation 12(1), no employer or self-employed person shall require or permit any person to work in an environment in which he or she would be exposed to lead in excess of the prescribed occupational exposure limits.	3. Classification of lead and lead containing products The manufacturer or importer of lead or lead containing products must, before it is supplied to a workplace, use the compulsory classification according to Annexure A and review the classification should a change in composition be made.	The classification of lead is oversimplified and results in risk: 1. The Department carries the majority of risk as the DEL have provided the classification. A fixed classification does not allow for a changing epidemiological landscape, where the toxicological profile of one or a number of forms of lead can change over time. Having a single classification does not allow for this change. If the classification is incorrect or not strict enough, then this risk falls on DEL. E.g. Lead chromate is a carcinogen, but the classification means that the DEL is not recognising lead chromate as a carcinogen. 2. Annexure A will need to be modified for the lead regs. Using the building block classification from the draft RHCA 2. There are many forms of lead that are classified with different CAS numbers. This means that these forms of lead are not regulated.	It is proposed that Annexure A from the draft HCA Regulations be used instead of the Department providing Classifications. 3. Classification of lead and lead containing products (1) The manufacturer or importer of lead or lead containing products must, before it is supplied to a workplace- (a) carry out a hazard assessment for lead or lead containing products using the building blocks provided in Annexure A; and (b) review the GHS classification, should a change in composition of the lead or lead containing products, be made. (2) The classification and review of GHS classification contemplated in subregulation (1) must be carried out by a competent person.

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
		Also the classification should not be narrower than the scope as provided in the definition for Lead Work. Input: Here are other forms of lead that don't have their own TLVs (not widely established due to limited industrial use and the known toxicity of lead) but the TLV for TEL is typically applied for these agents because they are all lead alkyls: Organic Lead: Tetrapropyllead - CAS Number: 18540-29-9 Triethyllead - CAS Number: 617-25-8 Trimethyllead - CAS Number: 594-27-4 Triphenyllead - CAS Number: 594-52-5 Diethyllead - CAS Number: 638-37-5 Dimethyllead - CAS Number: 3343-41-5 Diphenyllead - CAS Number: 90-09-7 Lead(II) acetate - CAS Number: 301-04-2 Inorganic Lead: Lead oxide (PbO) - CAS Number: 1317-36-8 Lead carbonate (PbCO₃) - CAS Number: 598-63-0 Lead sulfide (PbS) - CAS Number: 1314-87-0	

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
		Tetraethyllead (C₈H₂₀Pb) - CAS Number: 78-00-2 Lead chromate (PbCrO₄) - CAS Number: 7758-97-6 Lead acetate (Pb(CH₃COO)₂) - CAS Number: 301-04-2 Lead nitrate (Pb(NO₃)₂) - CAS Number: 10099-74-8 Lead azide (Pb(N₃)₂) - CAS Number: 13424-46-9 Lead fluoride (PbF₂) - CAS Number: 7783-46-2 Lead titanate (PbTiO₃) - CAS Number: 12060-00-3 Lead borate (PbB₂O₄) - CAS Number: 13823-29-5 Lead telluride (PbTe) - CAS Number: 1314-91-6 Lead styphnate (C₆HN₃O₈Pb) - CAS Number: 15245-44-0	
		Proposed: include a new regulation for Safety data Sheets. Numbering will need to be adjusted. Proposed changes written in blue font i.e. substituting HCA with lead or lead containing products.	4. Safety Data Sheet (1) Subject to section 10(3)(b) of the Act and regulation 3, a safety data sheet for lead or lead containing products must be- (a) prepared by an importer or, manufacturer before manufacture and if not reasonably practicable, immediately after manufacture but before import, provided that the safety data sheet is- (i) GHS compliant; (ii) developed by a competent person; (iii) classified for the lead or lead containing product, in accordance with regulation 3; (iv) reviewed at least once every 5 years; (v) amended whenever necessary to ensure that it contains correct and current information, aligned to its GHS classification required in regulation 3, which includes new data regarding the hazard presented by

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
			lead, that changes its classification in a category or subcategory of a hazard class, or results in its classification in another hazard class; and (vi) given the most recent applicable date which, may be the date of first issue, review, or amendment. (b) provided by the manufacturer or importer to- (i) a supplier of lead or lead containing products to a workplace; and (ii) any person who is likely to be affected by lead; (c) provided by the supplier of lead or lead containing products- (i) when the lead or lead containing products are first supplied to the workplace; (ii) if the SDS for the lead or lead containing product is amended; and (iii) to any person at the workplace if they request the SDS; (d) obtained by the employer from the manufacturer, importer or supplier of the lead or lead containing product and provided to- (i) any person who is involved in using, handling or likely to be exposed to lead at the workplace; (ii) any person at the workplace who needs the information to assess risk related to health and safety; (iii) any health practitioner who needs the information to treat a person who has been exposed to lead; or (iv) an emergency service professional who requires the information to fulfil their duties as an emergency respondent. (2) Subregulation (1) does not apply to a manufacturer or importer of lead or lead containing products who has not manufactured or imported lead or lead containing products in the past 5 years. (3) The information in the GHS compliant safety data sheet should be presented using the following 16

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
		Substitute “the substance/mixture” with lead or lead containing products	headings in the order given below, as may be updated from time to time- (a) 1: identification of lead or lead containing products and of the company/undertaking; (b) 2: hazards identification; (c) 3: composition/information on ingredients; (d) 4: first aid measures; (e) 5: firefighting measures; (f) 6: accidental release measure; (g) 7: handling and storage; (h) 8: exposure controls/personal protection; (i) 9: physical and chemical properties; (j) 10: stability and reactivity; (k) 11: toxicological information; (l) 12: ecological information; (m) 13: disposal considerations; (n) 14: transport information; (o) 15: regulatory information; and (p) 16: other information. (4) With the exception of heading 16, no heading may be left blank, if specific information is not applicable or available this should be indicated. (5) Under heading 8 any applicable OEL for lead must be provided. (6) Every page of an SDS must be numbered. (7) The GHS product identifier must appear on each page of an SDS.
		Heading for Labelling to move up to after SDS Could this addition create confusion for labelling as to whether it’s an HCA or Lead or Lead containing product	5. Labelling of Lead or Lead Containing Products (1) With regard to labelling of lead or lead containing products – (a) a manufacturer or importer of lead or lead containing products must ensure that the lead or lead containing product is correctly labelled, as required by subregulation (2), as soon as reasonably practicable after manufacturing or importing;

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
		Included the word “as required by subregulation (2)and “reasonably”	(b) a supplier of lead or lead containing products must not supply lead or lead containing products, if it is not correctly labelled; (c) a retailer of lead or lead containing products must not supply consumer products containing lead, to be used in a workplace, if they are not correctly labelled; and (d) an employer must- (i) ensure that lead or lead containing products used, handled or stored at the workplace are correctly labelled; (ii) ensure that a container labelled for lead or lead containing products is used only for the use, handling or storage of that lead or lead containing product; (iii) ensure that when lead or lead containing products are transferred or decanted at the workplace, from its original container into a destination container, the destination container is correctly labelled for that lead or lead containing product; and (iv) lead or lead containing products within pipework is identified by a label, sign or any other suitable manner, on or near the pipework, subject to: (aa) where the product is a mixture of more than one chemical agent and contains lead, the intermediate or finished product name may be used for identification; (bb) sampling or loading points or any other termination point of a pipe where during normal operations employees may be exposed to lead, must be identified; and (cc) pipework including the splitting of flanges, where employees may be exposed to lead during routine maintenance activities, should be identified as far as is reasonably practicable. (2) Subject to the provisions of subregulation (1) lead or lead containing products are correctly labelled, if the selection and use of label elements is in accordance with the GHS and is packed in a container that has a label- (a) that includes- (i) the product identifier; (ii) here applicable the UN proper shipping name;

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
			(iii) the chemical identity of all ingredients, contributing to the final GHS classification of the lead or lead containing products; (iv) the name, address, business and telephone number of the manufacturer; or the importer; (v) an emergency telephone number; (vi) applicable signal word; (vii) hazard statement; (viii) precautionary statement; and (ix) hazard pictogram consistent with the GHS; (b) which may include- (i) the quantity of lead in the package, unless this quantity is specified elsewhere on the package; (ii) the quantity of each lead containing ingredient; (iii) any information about the hazards, first aid and emergency procedures relevant to lead or lead containing products, not otherwise included in the hazard statement or precautionary statement; (iv) first aid measures; (v) classification of the lead or lead containing products, made in accordance with regulation 3; and (vi) an expiry date, where applicable.
4. Information and training (1) An employer shall, before any employee is exposed or may be exposed to lead, and after consultation with the health and safety committee established for that section of the workplace, ensure that the employee is adequately and comprehensively informed and trained, on both practical aspects and theoretical knowledge, with regard to – (a) the contents and scope of these Regulations; (b) the potential sources of exposure; (c) the potential health risk caused by exposure to lead, including the health risks to employees' families and others, which could result from taking home lead contaminated equipment and clothing;	4. Identification of lead and lead work (1) An employer or self-employed person must, as far as is reasonably practicable, ensure the identification, by a competent person of- (a) all lead work; (b) all lead and lead containing products;		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
(d) the measures taken by the employer to protect an employee against any risk from exposure; (e) the precautions to be taken by the employee to protect him- or herself against the health risks associated with the exposure, which precautions include the wearing and use of protective clothing and respiratory protective equipment; (f) the necessity, correct use, maintenance and limitations of protective equipment, facilities and engineering control measures provided; (g) the assessment of exposure, the purpose of air sampling, the necessity of medical surveillance and the long term benefits of undergoing such surveillance; (h) the occupational exposure limits and their meaning; (i) the importance of good housekeeping in the workplace and personal hygiene; (j) the safe working procedures regarding the use, handling, processing and storage of any material containing lead, including the correct application of control measures to limit the spread of lead outside the work area, and to limit the exposure of workers inside the work area as far as is reasonably practicable; (k) the procedures to be followed in the event of spillages or any other similar emergency or situation which could arise by accident; (l) the procedures for reporting and correcting defects likely to result in the release of airborne lead; (m) safe waste disposal; (n) the procedures for record keeping; and (o) all other matters contemplated in regulation 5.			
(2) Refresher training shall be given on matters contemplated in subregulation (1) at least every year or at more frequent intervals that may be	(2) An employer or self-employed person must enter into an inventory, all lead and lead containing products as contemplated in subregulation 1(b) and maintain the inventory	Grammatical correction	(2) An employer or self-employed person must enter into an inventory, all lead and lead containing products as contemplated in subregulation 1(b) and the inventory is maintained to ensure the information is up to date.

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
recommended by the health and safety committee.	up to date.		
(3) Training shall be given more frequently than once a year if – (a) work methods change; (b) the type of work carried out, changes significantly; or (c) the type of equipment used to control exposure, changes.	(3) The inventory must include- (a) a list of lead products used, handled or stored; (b) all lead work processes; (c) the current SDS for each; and (d) the work area where lead is used or lead work conducted.		
(4) Training shall be provided by somebody who is competent to provide it and has adequate personal practical experience and theoretical knowledge of all aspects of the work being carried out by the employer.	(4) The employer must ensure that the inventory is readily accessible to- (a) an employee involved in lead work; and (b) anyone else who is likely to be affected by lead at the workplace.		
(5) An employer or a self-employed person shall ensure, as far as is reasonably practicable, that his or her mandatory or any person other than employees who may be affected by lead exposure at the workplace, are given adequate information, instruction and training.			
(6) An employer shall keep a record of any training, both practical and theoretical, that was given to an employee.			
(7) An employer or a self-employed person shall give instructions in writing of the procedures contemplated in subregulation (1)(k) to drivers of vehicles carrying lead or lead containing material that has the potential of causing environmental pollution or bodily absorption.			
5. Duties of persons who may be exposed Any person who is or may be exposed to lead in the workplace, shall obey any lawful instruction given by or on behalf of the employer or a self-employed person, regarding – (a) the prevention of lead being released into	5. Lead risk assessment (1) An employer or self-employed person must, where lead work is conducted, cause a documented risk assessment to be carried out immediately by a competent person and thereafter at intervals not exceeding 24 months;		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
the environment; (b) the wearing and use of personal protective equipment; (c) the wearing of monitoring equipment to measure personal exposure to airborne lead; (d) reporting for medical surveillance as required by regulation 8; (e) the notification of pregnancy to the occupational health practitioner; (f) the cleaning up and disposal of materials containing lead; (g) housekeeping at the workplace, personal hygiene and good environmental and health practices; and (h) information and training received as contemplated in regulation 4.	(2) When making the risk assessment contemplated in subregulation (1), the employer or a self-employed person must take the following into account- (a) the presence of any, organic or inorganic lead to which a person may be exposed; (b) where the lead may be present and physical form; (c) the extent to which a person may be exposed; (d) the number of employees exposed and any other person who may be exposed; (e) the nature of the work, process and any likely deterioration in, or failure of, any control measures; (f) description of the task as well as level, duration, intermittency and frequency of the exposure; (g) the potential routes of intake; (h) implementation of recommendations contained in the previous risk assessment; (i) where available, historical results of exposure monitoring; (j) information provided by the manufacturer or importer or supplier of the lead or lead containing products; (k) the hazardous properties of lead, including the health class and categories, which are contained in any relevant SDS that is GHS compliant; (l) the health effects; (m) the health risk to vulnerable employees, reproductively able, pregnant and lactating women; (n) the OEL for lead; (o) activities such as maintenance where there is a potential for exposure; (p) the effectiveness of preventive and control measures, including the experience of employees regarding the effectiveness of		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	controls; (q) the steps recommended to be taken to control exposures, in accordance with regulation 12, aligned with the hierarchy of control; (r) records of adverse medical surveillance outcomes; (s) whether the expected exposure is above the action level for lead, so that the appropriate respiratory protective equipment can be selected pending the implementation of engineering control measures; (t) procedures for removal of lead waste from the workplace and the disposal thereof; (u) procedures for dealing with spills and emergencies; (v) the steps to be taken to reduce the release of airborne lead into the environment; and (w) such additional information as may be needed to complete the lead risk assessment.		
	(3) An employer or a self-employed person must forthwith review the lead risk assessment required by subregulation (1) if- (a) there is reason to believe that the previous assessment is no longer valid; (b) control measures are no longer efficient; (c) technological or scientific advances allow for more efficient control methods; or (d) there has been a significant change in- (i) work methods; (ii) the type of work carried out; (iii) the type of equipment used to control exposure; or (iv) when blood-lead or airborne lead concentrations are likely to exceed the action levels.		
	(4) If the assessment or any reviews made in		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	accordance with subregulations (1) and (3), indicate that any person may be exposed to lead, the employer or self-employed person must ensure that the exposure is adequately controlled as contemplated in regulation 12.		
6. Assessment of potential exposure (1) An employer or a self-employed person shall cause (a) his or her undertaking to be assessed within six months after the commencement of these Regulations and thereafter at intervals not exceeding two years, to determine if any person may be exposed to lead; and (b) the results of the assessment contemplated in paragraph (a) to be recorded as required by regulation 10.	6. Information, instruction, supervision and training (1) An employer who undertakes lead work must inform the relevant health and safety representatives or health and safety committee established for that workplace of the- (a) intention to conduct- (i) a lead risk assessment contemplated in regulation 5; (ii) exposure monitoring contemplated in regulation 8; (iii) medical screening and surveillance contemplated in regulation 9; and (iv) training contemplated in sub-regulation (2). (b) the documented outcomes of- (i) the lead risk assessment contemplated in regulation 5; (ii) exposure monitoring contemplated in regulation 8; and (iii) medical screening and surveillance contemplated in regulation 9;		
(2) An employer contemplated in subregulation (1) shall, before causing an assessment to be made, consult with the relevant health and safety representative or relevant health and safety committee and thereafter inform them in writing of the arrangements made for the assessment, give them reasonable time to comment thereon and ensure that the results of the assessment are made available to them for comment.	(2) An employer must provide information, instruction, supervision and training to any employee exposed to lead.		
(3) When making the assessment contemplated in subregulation (1)(a), the employer or a self-	(3) Information, instruction and training contemplated in subregulation 2 must be		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
employed person shall take the following into account: (a) The presence of any lead (organic or inorganic) to which a person may be exposed; (b) where the lead may be present, in what physical form it is likely to be and the extent to which a person may be exposed; (c) the nature of the work, process and any likely deterioration in, or failure of, any control measures; (d) the details of expected exposures, in particular - (i) whether the expected exposure is above the OEL for lead, so that the appropriate respiratory protective equipment can be selected pending the implementation of engineering control measures; (ii) whether such exposures are intermittent, including the frequency and duration of exposures; (iii) the number of employees exposed and any other person who may be exposed, and their expected exposure values; and (iv) where applicable, results which may be available from any previous monitoring performed at the workplace; (e) the steps to be taken to reduce exposure to the lowest level reasonably practicable and the steps to be taken to reduce the release of airborne lead into the environment; (f) procedures for dealing with emergencies; and (g) procedures for removal of lead waste from the workplace, and the disposal thereof.	provided prior to exposure of the employee to lead.		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
(4) If the assessment or any of its reviews made in accordance with subregulations (1) and (5) indicates that any person may possibly be exposed to lead, the employer or a self-employed person shall ensure that the exposure is adequately controlled as contemplated in regulation 11.	(4) The information and training contemplated in subregulation 2 must include- (a) The contents and scope of these regulations including but not limited to- (i) OELs of lead; and (ii) duties of persons who are likely to be exposed to lead, as contemplated in regulation 7; (iii) prohibitions, as contemplated in regulation 16; (b) details of the lead to which the employee is likely to be exposed at the workplace including- (i) where it can be found; (ii) information on the potential risk to health and safety; and (iii) the outcome of exposure assessment; (c) how to access the relevant SDSs and the information that each part of an SDS provides; (d) the information that each part of the label on containers provides and why the information is being provided; (e) the work practices and procedures to be followed in the use, handling, storage, transportation, spill clean-up, disposal, emergency situations, good housekeeping and personal hygiene; (f) the necessity of personal exposure monitoring, biological monitoring and medical screening and surveillance; (g) the health risk to vulnerable employees, reproductively able, pregnant and lactating women; (h) the need for personal protective equipment including respiratory protective equipment as well as the correct use, storage and maintenance; and (i) the necessity, correct use, maintenance and potential of safety equipment, facilities and engineering control measures provided.		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
(5) An employer or a self-employed person shall forthwith review the assessment required by subregulation (1) if - (a) there is reason to believe that the previous assessment is no longer valid; (b) control measures are no longer efficient; (c) technological or scientific advances allow for more efficient control methods; or (d) there has been a significant change in - (i) work methods; (ii) the type of work carried out; or the type of equipment used to control exposure, and subregulations (2) and (3) shall apply.	(5) An employer must – (a) provide refresher training annually; (b) provide information on access to risk the assessment, exposure monitoring records and personal medical records; (c) give written instructions of the procedures to be followed in the event of spillages, leakages or any similar emergency situation, to the drivers of vehicles transporting lead; and (d) agree in writing to the arrangements and procedures to ensure compliance by the mandatory to information and training requirements, as contemplated in section 37(2) of the Act.	by the mandatory must be the mandatory.	
	(6) An employer or self-employed person must ensure, as far as is reasonably practicable, persons other than employees who may be affected by lead exposure at the workplace are informed, supervised and instructed.		
7. Air monitoring (1) Where exposure to airborne lead is in excess of half the OEL for lead, an employer contemplated in regulation 2(1) shall ensure that the measurement programme of the airborne concentrations of lead to which an employee is exposed, is (a) carried out in accordance with these Regulations; (b) carried out only after the relevant health and safety representative or relevant health and safety committee has been informed thereof and given a reasonable opportunity, as mutually agreed upon, to comment thereon; (c) carried out by – (i) an approved lead inspection authority; or (ii) a person whose ability to do the measurements is verified by an approved lead inspection authority;	7. Duties of persons who may be exposed (1) Any person who is or may be exposed, must obey a lawful instruction given by or on behalf of the employer or a self-employed person, regarding- (a) the prevention of lead from being released in an uncontrolled manner; (b) the correct use of personal protective equipment, respiratory protective equipment and protective clothing; (c) co-operation with the employer in determining personal exposure, which may include the wearing of monitoring equipment to measure personal exposure; (d) the reporting for exposure monitoring, medical screening and surveillance and biological monitoring as required by these regulations;		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
(d) representative of the exposure of employees to airborne lead in accordance with subregulation (2); and (e) verified in accordance with subregulation (3) if the measurements are carried out by a person contemplated in subregulation (1)(c)(ii).	(e) the cleaning up and disposal of materials contaminated by lead; (f) housekeeping at the workplace, personal hygiene, environmental and health practices; and (g) information, instruction, supervision and training.		
(2) In order to comply with the provisions of subregulation (1)(d) an employer shall ensure – (a) that the measurement programme – (i) in the case of a group measurement, makes provision for the selection of the number of persons for a sample to be done as contemplated in chapters 3 and 4 and table A-2 of Technical Appendix A of the OESSM: Provided that in so far as any provision of the OESSM and the HSG 173 is repugnant to a provision of the Occupational Health and Safety Act, 1993, and these Regulations, the provisions of the Act and these Regulations shall apply; (ii) in the case of the most exposed employee measurement, if the exposure exceeds the OEL for lead, then any other employee whose exposure could be above the OEL for lead is identified and that measurements representative of typical exposure shall be carried out on every employee identified; and (c) that representative measurements are carried out at least every 12 months: Provided that whenever the OEL for lead is exceeded, regulation 11 shall apply. <i>[Incorrect numbering as per Government Gazette]</i>	(2) Every employee must- (a) make full and proper use of any control measure or facility provided in accordance with these regulations; (b) inspect, use, wear, store and dispose of the equipment in accordance with any information, training or lawful instruction provided by the employer; (c) not intentionally misuse or damage any equipment; (d) immediately inform the employer of any damage to, defect in, need to clean or decontaminate, or replace any of the equipment of which the employee becomes aware; (e) remove contaminated personal protective equipment on leaving the working area and keep it apart from uncontaminated clothing and equipment; and (f) ensure personal protective equipment is returned after use and safely stored if not disposed.		
(3) In order to comply with subregulation (1)(e), an employer shall obtain the services of an approved lead inspection authority who shall,			

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
at intervals not exceeding 12 months, perform the required verification by – (a) examining the measurement and analysis equipment of the employer; (b) questioning the person contemplated in subregulation (1)(c)(ii) regarding the measurement programme; (c) carrying out together with the person contemplated in subregulation (1)(c)(ii), the measurement programme required by subregulation (2) for any one group; and (d) recording the results of the measurement and investigation as contemplated in subregulations (2) and (3) respectively, as required by regulation 10.			
8. Medical surveillance (1) An employer shall ensure that an employee is under the medical surveillance of an occupational medicine practitioner if - (a) the employee is exposed to an airborne lead concentration exceeding the OEL; (b) the employee is exposed to tetra-alkyl lead; or (c) an occupational medicine practitioner certifies that the relevant employee should be under medical surveillance.	8. Exposure monitoring (1) Based on the lead risk assessment for an SEG carried out in accordance with regulation 5, the employer must ensure that exposure monitoring is conducted- (a) for air monitoring of lead- (i) if the risk assessment indicates potential exposure of the action level for airborne lead; (ii) at least every 24 months; and (iii) by an approved inspection authority (b) for biological exposure monitoring of lead- (i) if the risk assessment indicates potential exposure is likely to result in blood lead concentrations exceeding the relevant action levels for lead; (ii) if air monitoring results contemplated in subregulation (1)(a) exceed 50% of the OEL; (iii) if air monitoring alone is unlikely to reflect total uptake through all exposure routes; (iv) if the health risk assessment identifies any vulnerable employees, reproductively able,	Grammar correction “potential exposure of the action level” By not including d). from the RHCA, it means that less air monitoring is required for lead than HCA. Recommend including d) from the RHCA	a) for air monitoring of lead- (i) if the risk assessment indicates potential exposure is likely to exceed the action level for airborne lead; by collecting a minimum of three personal air monitoring measurements for each SEG;

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	pregnant, and lactating women, that may be exposed to lead; and (v) when recommended by an occupational medicine practitioner.		
(2) In order to comply with subregulation (1), an employer shall ensure that – (a) an initial medical examination comprising of the following is carried out immediately before or within 14 days after a person commences employment: (i) An evaluation of the employee's medical and occupational history; (ii) clinical examinations; and (iii) in the case of lead other than tetra-alkyl lead, measurement of the employee's blood lead and haemoglobin concentrations and other relevant biological tests at the discretion of the occupational medicine practitioner: Provided that the measurement of blood lead concentrations shall be repeated during the third and the sixth month after commencement of employment: Provided further that when monitoring of zinc protoporphyrine (ZPP) in blood expressed in ug ZPP/g haemoglobin is performed at intervals not exceeding two months, only annual blood lead concentration measurements are required; (b) subject to the provisions of subregulation (2)(a)(iii), biological monitoring consisting of the following is carried out: (i) Measurement of blood lead concentration for employees exposed to lead other than tetra-alkyl lead, at intervals as prescribed in the Table contained in Annexure A to these Regulations: Provided that in the case of female employees who are capable of procreation, all such	(2) The results of air monitoring carried out in terms of subregulation (1) must be used to determine- (a) the need for implementation of controls, in terms of regulation 12; (b) validation of respirator protection factor selection, in terms of regulation 14(4); and (c) whether to conduct medical screening and medical surveillance, in terms of regulation 9.		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
measurements are carried out at three-monthly intervals; (ii) immediate measurement of urinary lead concentration for employees exposed to tetra-alkyl lead and thereafter at intervals as prescribed in the Table contained in Annexure B to these Regulations; (c) clinical examinations and relevant biological tests are carried out at the discretion of the occupational medicine practitioner; (d) where the blood lead concentration of an employee exposed to lead other than tetra-alkyl lead, is equal to or greater than 60ug /100 ml the test is repeated, and if the result of the repeated test corrected for the haematocrit value, with reference to a standard value of 43 % for men and 38 % for women, is greater than 60 ug/100 ml, that the employee is certified to be unfit for work in an area where he or she is exposed to lead: Provided that the occupational medicine practitioner, if he or she deems it necessary, may certify an employee who has a blood lead concentration of less than 60ug/100 ml to be unfit for work in an area in which he or she is exposed to lead: Provided further that the removal blood lead level of 60ug /100 ml may be phased-in by reducing the level from 80ug /100 ml to 75ug/100 ml with effect from 30 June 2002, and then by a further 5ug /100 ml every twelve months thereafter in order to reach 60ug /100 ml by 30 June 2005, as depicted in the Table contained in Annexure C to these Regulations; (e) where the urinary lead concentration of an employee exposed to tetra-alkyl lead is equal to or greater than 150ug/100ml the test is repeated, and if the result of the repeated test is greater than 150ug/100ml that the employee is certified to be unfit for work in an area in which			

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
he or she is exposed to lead: Provided that the occupational medicine practitioner, if he or she deems it necessary, may certify an employee who has a urinary lead concentration of less than 150ug/100ml to be unfit for work in an area in which he or she is exposed to lead; and (f) where the ZPP value in the blood of an employee who is exposed to lead other than tetra-alkyl lead, is equal to or greater than 10ug ZPP/g haemoglobin, the blood lead shall be measured as contemplated in subregulation 2(d): Provided that the occupational medicine practitioner, if he or she deems it necessary, may certify an employee who has a ZPP value of less than 10 haemoglobin, but higher than 8ug ZPP per gram haemoglobin in his or her blood, to be unfit for work in an area in which he or she is exposed to lead.			
(3) An employer shall ensure that no employee certified by the occupational medicine practitioner to be unfit for work in an area which exposes him or her to lead, returns to work until – (a) the occupational medicine practitioner certifies in writing that the employee is fit for such work; (b) the employee's blood lead concentration is less than 50ug /100 ml: Provided that the return blood lead level of 50ug /100 ml may be phased-in by reducing the level from 70ug /100 ml to 65ug /100 ml with effect from 30 June 2002, and then by a further 5ug /100 ml every twelve months thereafter in order to reach 50 ug/100ml by 30 June 2005, as depicted in the Table contained in Annexure D to these Regulations; (c) the ZPP value in the blood of the employee is less than 6 u/g haemoglobin; or (d) the employee's urinary lead concentration is less than 130ug/10ml	(3) Every employer must ensure biological exposure monitoring of lead other than tetra-alkyl lead, are include in baseline measurements of blood lead which shall be repeated during the third and the sixth month after commencement of employment and thereafter at the relevant intervals provided in Table 1 of Annexure B.	Grammatical	are included

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
(4) An employer shall ensure that – (a) a female employee who is capable of procreation and who carries out work that exposes her to lead, is removed from such work when her blood lead concentration exceeds 40ug/100ml or her urinary lead concentration exceeds 75 or if she falls pregnant; and (b) the employee contemplated in subregulation (4)(a) is not permitted to return to work that will expose her to lead unless her blood lead concentration is less than 30ug/100 ml or her urinary lead concentration is less than 65 ug/litre or, where the removal was due to pregnancy, the employee is no longer pregnant.	(4) Where the blood lead concentration of an employee exposed to lead exceeds the suspension levels provided in Table 1 of Annexure B, every employer must ensure the test is repeated, and if the result of the repeated test continues to exceed the suspension level, then the employee must be temporarily suspended from lead work until the blood lead levels are equal to or less than the relevant return to work level.		
(5) Where it is found that an employee had to be removed from his or her workplace owing to the provisions of subregulations (2)(d), (2)(e), (2)(f) and (4)(a), the employer shall record and investigate the incident in accordance with regulation 8 of the General Administrative Regulations.	(5) Where the blood lead concentration of an employee exposed to lead is equal to or exceeds the relevant action levels provided in Table 1 of Annexure B, the employer must- (a) review the effectiveness of control measures; (b) investigate the reason for increased levels; (c) consider whether there are any observable patterns in the employee's biological exposure levels and how these may be related to work practices; (d) develop an action plan with appropriate corrective actions based on the recommendations in the lead risk assessment and exposure monitoring report; and (e) enter the results of the exposure monitoring, contemplated in subregulation (1), into the records required by regulation 11.		
	(6) Every employer must ensure biological exposure monitoring of tetra-alkyl lead, include a baseline measurement of total urinary lead at the commencement of employment and thereafter at the relevant intervals provided in Table 2 of Annexure B.		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	(7) Where the total urinary lead concentration of an employee exposed to tetra-alkyl lead exceeds the relevant suspension levels provided in Table 2 of Annexure B, the test is repeated, and if the result of the repeated test continues to exceed the suspension level, then the employee must be temporarily suspended from lead work until the total urinary lead levels are equal to or less than the relevant return to work level.		
9. Respirator zone An employer or self-employed person shall ensure that – (a) workplace or part of a workplace under his or her control, where the concentration of lead in the air is or may be such that the exposure of persons in that workplace exceeds the OEL without the wearing of respiratory protective equipment, is zoned as a respirator zone; (b) a respirator zone is clearly demarcated and identified by notice indicating that the relevant area is a respirator zone and that the respiratory protective equipment and protective clothing contemplated in regulation 12 must be worn; (c) no person enters or remains in a respirator zone unless he or she wears the required respiratory protective equipment and protective clothing; and (d) the reason why the OEL is exceeded is identified and that action is taken, as soon as is reasonably practicable, by other means than respiratory equipment, in order to lower the airborne lead concentrations so that it does not exceed the OEL for lead.	9. Medical screening and surveillance (1) Where significant exposure risk is identified in the risk assessment or exposure monitoring, the employer must obtain the opinion of an occupational medicine practitioner to determine whether medical screening is necessary and in forming the opinion, the occupational medicine practitioner must consider- (a) if the risk assessment indicates significant exposure risk, including consideration of all routes of intake; (b) if the results of exposure monitoring identify exposures exceeding the action level for airborne lead or the relevant action level for blood lead; and (c) the exposure of vulnerable employees.		
	(2) An employer must establish, implement and maintain a documented system of medical surveillance, which is overseen by an occupational medicine practitioner, if the lead risk assessment indicates significant exposure as contemplated in subregulation 1 (a), (b) and (c).		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	(3) Where the need for medical surveillance has been determined by the occupational medicine practitioner, as contemplated in subregulation (2), the medical screening must include- (a) an evaluation of the employee's medical, occupational and exposure history; (b) the appropriate clinical examination and medical tests to identify signs and symptoms associated with the ill health effects of lead exposure and lead poisoning; (c) the intervals at which medical screening must be repeated.		
	(4) The employer must ensure that medical screening contemplated in subregulation (3) is carried out by an occupational health practitioner- (a) immediately before or within 14 days after a person commences employment as is practicable; and (b) periodically as recommended by the occupational medicine practitioner, but not exceeding 12 months.		
	(5) After the initial or periodic medical screening evaluation, the occupational medicine practitioner must notify the employer in writing by means of a medical certificate of fitness, and inform the employee accordingly, if- (a) the employee has a medical condition which; (i) prevents the wearing of personal protective equipment, where the employee's job requires the wearing of respiratory protective equipment or any other personal protective equipment; or (ii) is likely to be aggravated by the exposures at that workplace; (b) the medical screening evaluation identified an adverse health effect caused by exposure to lead at that workplace.		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	(6) With respect to the medical certificate of fitness contemplated in subregulation (5), the certificate must indicate- (a) recommendations related to the employee's fitness to perform the inherent requirements of the job, or the presence of an occupational disease, without including confidential medical information; (b) if any restrictions or conditions apply to any specified duties performed by the employee; (c) the period for which any restrictions or conditions, as applicable, should be applied and as far as is reasonably practicable- (i) accommodate the conditions or restrictions recommended; and (ii) only permit an employee who has been medically certified for restricted duties to return to normal duties if the employee has been certified fit for those duties by an occupational medicine practitioner.		
	(7) The documented system of medical surveillance contemplated in subregulation (2) should as far as reasonably practicable include- (a) an analysis of the screening results over time, to look for abnormal trends in health status, potentially resulting from adverse effects of exposure to lead; and (b) using the results of subregulation (1) (b) to identify the need for targeted exposure prevention in the workplace.		
	(8) The employer must investigate and report the occupational disease contemplated in subregulation (6)(a) in compliance with regulation 8 of the General Administrative Regulations, and section 25 of the Occupational Health and Safety Act, 85 of 1993.		
	(9) An employee may appeal any finding of an occupational medical practitioner stipulated in the medical certificate of fitness to the chief		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	inspector, in writing within 60 days of receiving the certificate;		
	(10) The employer must- (a) ensure that the employee provides written informed consent for inclusion in the medical screening; (b) ensure that the employee provides written informed consent for inclusion in the surveillance programme.		
	(11) The employer must ensure that exit medical screening is carried out by an occupational health practitioner on termination of an employee's service.		
	(12) An employee may appeal any finding provided by the occupational medical practitioner stipulated in the medical certificate of fitness, to the chief inspector, in writing within 60 days of receiving the certificate.		
10. Records An employer shall - (a) keep records of the results of all assessments, air monitoring, medical surveillance reports and maintenance of control measures required by Regulations 6, 7 and 8: Provided that personal medical records shall only be made available to an occupational health practitioner; (b) subject to paragraph (c), make the records contemplated in paragraph (a), excluding personal medical records, available for inspection by an inspector; (c) subject to formal consent in writing of an employee, allow any person to peruse the records of that particular employee; (d) make the records of all assessments and air monitoring available for perusal by the relevant health and safety representative or health and safety committee; (e) keep all records of assessments and	10. Respirator zone (1) An employer or self-employed person must ensure that a respirator zone or temporary respirator zone is declared for any workplace or part of a workplace where the concentration of lead in air exceeds or is likely to exceed the OEL.		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
air monitoring for a minimum period of 40 years; (f) keep all medical surveillance records for a minimum period of 40 years and if he, she or it ceases activities, hand over or forward by registered post all those records to the relevant provincial director: Provided that those records shall contain at least the following information: (i) Surname, forename(s), gender, date of birth, name of spouse or closest relative and, where available, permanent address and postal code; (ii) a record of types of work carried out with lead and, where relevant, its location, the starting and finishing dates and the average duration of exposure expressed in hours per week; (iii) a record of any work with lead prior to this employment; and (iv) dates of medical surveillance reports; (g) keep record of the tests and investigations carried out in terms of regulation 14(b) and of any repairs resulting from the relevant tests and investigations, and keep that record for at least three years; and (h) keep a record of training given to an employee in terms of regulation 4(6) for as long as the employee remains employed at the workplace in which he or she is being exposed to lead.			
	(2) A temporary respirator zone may be declared during abnormal operations, including when engineering controls are; (a) rendered ineffective due to a temporary breakdown; (b) being installed or repaired; or (c) ineffective to control exposures in an emergency situation.		
	(3) The employer must ensure that the respirator zone or temporary respirator zone is clearly		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	demarcated and identified by notice indicating that the relevant area is a respirator zone.		
	(4) The employer must ensure that no person enters or remains in a respirator zone or temporary respirator zone, unless they are wearing the required respiratory protective equipment and other personal protective equipment as contemplated in regulation 13.		
	(5) The reason for an exceedance of the OEL is identified and that action is taken, as soon as is reasonably practicable, by means other than respiratory protective equipment, to lower the airborne concentrations of lead to below the OEL.		
11. Control of exposure to lead (1) An employer or self-employed person shall ensure that the exposure of a person to lead is either prevented or, where this is not reasonably practicable, adequately controlled: Provided that the control of the exposure shall be regarded as adequate if - (a) the level of airborne lead is - (i) at or below the OEL; or (ii) above the OEL but the reason has been identified and action has been taken, as soon is reasonably practicable to lower the airborne level by means other than respiratory protective equipment, so that it does not exceed the OEL for lead; or (b) in the case of exposure to - (i) ingestible lead, the blood lead level is less than 20 ug/100ml; or (ii) lead alkyls, the urinary lead level is less than 120ug /litre	11. Records (1) An employer or self-employed person must- (a) keep written or electronic records of- (i) lead risk assessments; (ii) lead exposure monitoring; (iii) medical screening and medical surveillance reports; (iv) training and refresher information and training records; (v) maintenance of control measures; and (vi) reported occupational diseases; (b) keep records for a minimum period of 40-years; (c) make the records available to- (i) the relevant health and safety representative, health and safety committee or to an inspector; (ii) any person, provided the records contemplated in regulation 9, are subject to formal written consent of the employee;		
(2) Where reasonably practicable, an employer or a self-employed person shall control a person's exposure to lead by –	(2) If an employer or self-employer person ceases activities, the employer or self-employer person must inform the relevant chief director: provincial operations of -		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
(a) using a substitute for lead or lead-containing material; (b) limiting the number of persons who will be exposed or may be exposed; (c) limiting the period during which a person will be exposed or may be exposed; (d) limiting the amount of lead that may contaminate the working environment; (e) introducing the following engineering control measures for the control of exposure: (i) Process separation, automation or enclosure; (ii) the installation of local extraction ventilation systems to processes, equipment or tools for the control of emissions of airborne lead; (iii) the use of wet methods where appropriate; (iv) separate workplaces for different processes; (v) the identification of early corrective action to be taken; and (f) introducing appropriate written work procedures that an employee must follow to ensure that - (i) lead is safely handled, used and disposed of; (ii) process machinery, installations, equipment, tools, local extraction and general ventilation systems are safely used and maintained; and (iii) early corrective action regarding the control of lead exposure can be taken. (3) The employer or self-employed person shall ensure that the release of lead into any environment or water system complies with the provisions of the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965), the Environment Conservation Act, 1989 (Act No. 73 of 1989), the National Water Act, 1998 (Act No. 36 of 1998), and the National Environmental Management Act, 1998 (Act No. 107 of 1998).	(a) where the records listed in sub-regulation 1 (a) will be kept; and (b) how those records will be accessed, when required.		
12. Personal protective equipment and facilities (1) An employer or self-employed person shall	12. Control of exposure (1) An employer or self-employed person must prevent exposure to lead or, where this is not		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
(a) provide all persons who are exposed to concentrations of airborne lead in excess of half the OEL for lead, with suitable protective clothing with no pockets so as to reduce the possibility of contamination and collection of lead dust; (b) in the case of tetra-alkyl leads which can be absorbed through the skin, provide the person with suitable lead impermeable Protective equipment; and (c) provide a person with suitable respiratory protective equipment to ensure that the person's exposure is adequately controlled as contemplated in regulation 11.	reasonably practicable, control exposure: Provided that the control of the exposure shall be regarded as adequate if the results of exposure monitoring are at or below the OEL for airborne lead and the relevant action level for blood lead.		
(2) Where respiratory protective equipment is provided, the employer or self-employer person shall ensure that – (a) the relevant equipment is capable of keeping the exposure at or below the OEL for the type of lead; (b) the relevant equipment is correctly selected and properly used; (c) information, instruction, training and supervision that are necessary with regard to the use of the equipment are known to the persons; and (d) the equipment is kept in good condition and efficient working order.	(2) Where reasonably practicable, an employer or a self-employed person must control an employee's exposure to lead at the workplace by- (a) the elimination of lead; (b) using a substitute for lead or lead-containing material; (c) the design and use of engineering controls, including- (i) the control of exposure at source of lead; (ii) process separation, automation or enclosure; (iii) the installation of local extraction ventilation systems to processes, equipment or tools for the control of emissions of airborne lead; (iv) the use of wet methods where appropriate; (v) separate workplaces for different processes; (vi) the identification of early corrective action to be taken;		
(3) An employer or self-employed person shall, as far as is reasonably practicable (a) issue no personal protective equipment which has already been used to a person, unless the relevant protection equipment is properly	(3) An employer or a self-employed person must introduce appropriate written work procedures that an employee must follow to ensure that- (a) lead is safely handled, used and disposed of;		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
decontaminated and, where appropriate, sterilised; (b) provide separate containers or storage facilities for personal protective equipment when not in use; and (c) ensure that all personal protective equipment not in use is stored only in the place provided.	(b) process machinery, installations, equipment, tools, local extraction and general ventilation systems are safely used and maintained; and (c) early corrective action regarding the control of lead exposure can be taken.		
(4) An employer or self-employed person shall, as far as is reasonably practicable, ensure that all contaminated personal protective equipment is cleaned and handled in accordance with the following procedures: (a) Where the equipment is cleaned on the premises of the employer or self-employed person, care shall be taken to prevent contamination during handling, transport and cleaning; (b) where the equipment is sent off the premises to a contractor for cleaning purposes, the - (i) equipment shall be packed in impermeable containers; (ii) containers shall be tightly sealed and have clear indication thereon that the content thereof is contaminated with lead; and (iii) relevant contractor shall be fully informed of the requirements of these Regulations and the precautions to be taken for the handling of the lead contaminated equipment.	(4) An employer or a self-employed person must use administrative controls for lead at the workplace, including- (a) limiting the number of persons who may be exposed; (b) limiting the period during which a person may be exposed; (c) arrangements for the safe handling, storage and transport of lead and waste containing lead; (d) safe work procedures to minimise risk of exposure; (e) minimising the quantity of lead kept at the workplace; (f) personal hygiene and good housekeeping; (g) provision of information, instruction, supervision and training.		
(5) Subject to subregulation (4)(b), an employer or self-employed person shall ensure that no person removes dirty or contaminated personal protective equipment from the premises: Provided that where contaminated personal protective equipment has to be disposed of, it shall be treated as lead waste as contemplated in regulation 17.	(5) Personal protective equipment must be provided in accordance with regulation 13.		
(6) Subject to the provisions of the Facilities Regulations promulgated by Government Notice	(6) When developing control measures ensure that-		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
No. R.2362 of 5 October 1990, an employer shall, where reasonably practicable, provide employees who use personal protective equipment as contemplated in subregulation (1), with – (a) adequate washing facilities which are readily accessible and located in an area where the facilities will not become contaminated, in order to enable the employees to meet a standard of personal hygiene consistent with the adequate control of exposure, and to avoid the spread of lead; (b) two separate lockers labelled 'protective clothing' and 'personal clothing' respectively, located in both the 'dirty' and 'clean' change rooms, and also ensure that the clothing is kept separately in the lockers concerned; and (c) separate 'clean' and 'dirty' change rooms if the employer uses or processes lead to the extent that the lead could endanger the health of persons outside the workplace.	(a) all relevant routes of exposure are considered including inhalation, skin absorption and ingestion; (b) the introduction of control measures does not add other unintended health or safety risks.		
	(7) The employer or self-employed person must ensure that the release of lead into any environment or water system complies with the provisions of the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965), the Environment Conservation Act, 1989 (Act No. 73 of 1989), the National Water Act, 1998 (Act No. 36 of 1998), and the National Environmental Management Act, 1998 (Act No. 107 of 1998).	This needs to be updated: Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965),	National Environmental Management: Air Quality Act 2004(Act39 of 2004).
13. Cleanliness of premises and plant -Every employer or self-employed person shall, as far as is reasonably practicable, take steps to ensure that –	13. Personal protective equipment and facilities (1) An employer or self-employed person must provide – (a) all persons who are exposed to concentrations of airborne lead, in excess of the		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
(a) all workplaces are kept in a clean state and free of lead waste and, when lead is accidentally spilled or airborne lead is accidentally released into the workplace, corrective measures are immediately taken, before any work is continued; (b) cleaning is carried out by vacuum-cleaning equipment with a filtration efficiency of at least 99 percent for particles of one micrometre in size, or by some other means so that lead dust neither escapes nor is released into the air to such an extent that it contaminates any workplace or the environment; (c) the vacuum-cleaning equipment is regularly serviced and all its external surfaces are kept in a clean state and free from lead dust; and (d) where the use of vacuum-cleaning equipment is impracticable, surfaces which are to be cleaned are dampened and that persons undertaking such cleaning wear appropriate protective clothing and respiratory protective equipment.	action level for lead, with suitable respiratory protective equipment and protective clothing; (b) suitable lead impermeable protective clothing and respiratory protective equipment for types of lead which can be absorbed through the skin.		
	(2) Protective clothing and respiratory protective equipment must- (a) be capable of adequately controlling exposure to lead; (b) be appropriately selected for the work concerned and the conditions at the workplace where exposure to lead may occur;		
	(c) cover all parts of the employees' own clothing and, as far as is reasonably practicable, effectively resist penetration by lead in the form of dust, fume or tetraalkyl lead; (d) be without pockets and designed to avoid, as far as is reasonably practicable, the collection, trapping and retention of lead dust and materials contaminated with lead; (e) unless disposable, be made from a material which can be easily cleaned and decontaminated;	Insert hyphen for tetra-alkyl lead	

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	(f) take into account the state of health of the employees who are required to wear it; (g) fit the wearer correctly, and; (h) when not in use or during breaks, be stored in a manner that prevents lead contamination or the spread of lead.		
	(3) The protective clothing and respiratory protective equipment contemplated in subregulation 2 must be- (a) readily available to employees who require the protective clothing and respiratory protective equipment; (b) properly used or worn by the employees, by enforcing its use through providing adequate instruction, training and supervision.		
	(4) When providing respiratory protective equipment ensure the equipment is appropriate for- (a) controlling the exposure to below the OEL for lead; (b) achieving a good seal to the face; (c) the size and fit for the employee who has to use it; (d) the type of work to be done; (e) the physical effort required to do the work; (f) the length of time it will have to be worn; (g) the requirements in relation to the work for visibility, comfort and employee communication; and (h) compatibility with any other personal protective equipment that may be needed.		
	(5) The employee must ensure that personal protective equipment is- (a) kept clean, decontaminated and sanitised after use; (b) examined at suitable intervals and if found to be defective, make repairs before further use or be replaced; and (c) when not in use during breaks, respiratory protective equipment must only be stored in a		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	designated, readily accessible, clean container preventing lead contamination of the respiratory protective equipment.		
	(6) An employer must provide storage and washing facilities to be used by employees to maintain personal hygiene standards during work and before taking breaks.		
	(7) An employer must as far as is reasonably practicable, ensure that all contaminated personal protective equipment is cleaned and handled in accordance with the following- (a) where the equipment is cleaned on the premises of an employer, care must be taken to prevent contamination during handling, transport and cleaning; (b) where the equipment is sent off the premises to a contractor for cleaning purposes- (i) the equipment must be packed in impermeable containers, be tightly sealed and have a clear indication that the contents thereof are contaminated; and (ii) the relevant contractor must be fully informed of the requirements of these regulations and the precautions to be taken for the handling of lead contaminated equipment.		
	(8) Subject to the provisions of subregulation (7)(b) an employer must ensure that no person removes dirty or contaminated personal protective equipment from the premises: Provided that where contaminated personal protective equipment is to be disposed of, it must be treated as hazardous waste.		
	(9) Subject to the provisions of the Facilities Regulations promulgated by Government Notice No. R. 2362 of 5 October 1990, an employer must, where reasonably practicable, provide employees who use personal protective equipment, as contemplated in subregulation		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	(1), with- (a) adequate washing facilities which are readily accessible and located in an area where the facilities will not become contaminated, in order to enable the employees to meet a standard of personal hygiene consistent with the adequate control of exposure, and to avoid the spread of lead; (b) two separate lockers labelled “protective clothing” and “personal clothing” respectively, located in both the “dirty” and “clean” change rooms, and ensure that the clothing is kept separately in the lockers concerned; and (c) separate “clean” and “dirty” change rooms if the employer uses or processes lead to the extent that the lead could endanger the health of persons outside the workplace.		
14. Maintenance of control measures An employer or self-employed person shall ensure that - (a) all control equipment and facilities provided in terms of Regulations 11, 12, and 13 are maintained in good working order; and (b) examinations and tests of engineering control measures are carried out at intervals not exceeding 24 months by an approved inspection authority approved for such examinations and tests or by a person whose ability to do the measurements and tests is verified by such an approved inspection authority.	14. Cleanliness of premises and plant (1) An employer or self-employed person must, as far as is reasonably practicable, take steps to ensure that- (a) all workplaces are kept in a clean state and free of lead waste and, (b) when lead is accidentally spilled or airborne lead is accidentally released into the workplace, corrective measures are immediately taken, before any work is continued; (c) cleaning is carried out by vacuum-cleaning equipment with a filtration efficiency of at least 99 per cent for particles of one micrometre in size, or by some other means so that lead dust neither escapes nor is released into the air to such an extent that it contaminates any workplace or the environment; (d) the vacuum-cleaning equipment is regularly serviced and all its external surfaces are kept in a clean state and free from lead dust; and (e) where the use of vacuum-cleaning equipment is impracticable, surfaces which are		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	to be cleaned are dampened and that persons undertaking such cleaning wear appropriate protective clothing and respiratory protective equipment.		
15. Prohibitions (1) No person shall (a) use compressed air to blow away particles of lead from any surface, or require or permit any other person to use compressed air to blow away particles of lead from any surface; or (b) smoke, eat, drink or keep food or beverages in an area not specifically designated for it or require or permit any other person to smoke, eat, drink or keep food or beverages in such area.	15. Maintenance, examination and testing of control measures (1) An employer or self-employed person must ensure that- (a) reasonable steps are taken, enforcing proper use and application of control measures; (b) all control equipment and facilities provided in terms of regulations 12, 13, and 14 are maintained in good working order and clean condition; (c) inspection, examination and testing of engineering control measures are carried out at specified intervals by a competent person and findings are recorded; and (d) written instructions are established, which specify the nature of inspections, tests and maintenance to be performed on the ventilation system.		
(2) Lead paint shall not be – (a) used for the interior painting of buildings; (b) scraped or rubbed down from a surface by a dry process; (c) removed by burning; or (d) used on furniture.	(2) Where ventilation controls as a form of engineering control, are provided, the employer must ensure that- (a) testing of the ventilation system is carried out at least once every 24 months by an approved inspection authority, who must record in writing the findings; (b) test by an approved inspections authority should be repeated after any changes to control ventilation in the workplace were made; and (c) written reports by the approved inspections authority should clearly indicate findings and specify recommendations for corrective actions to ensure exposure remains below the OEL for lead.		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
16. Labelling, packaging, transportation and storage An employer or self-employed person shall, in order to avoid the spread of lead, take steps, as far as is reasonably practicable, to ensure that - (a) the lead in storage or distributed is properly identified, classified and handled in accordance with SABS 0228; (b) a container or a vehicle in which lead is transported is clearly identified, classified and packed in accordance with SABS 0228 and SABS 0229.	16. Prohibitions (1) No person shall- (a) use compressed air to blow away particles of lead from any surface or person, or require or permit any other person to use compressed air to blow away particles of lead from any surface or person; or (b) smoke, eat, drink or keep food or beverages in an area not specifically designated for it or require or permit any other person to smoke, eat, drink or keep food or beverages in such area.		
	(2) Lead paint may not be- (a) used for painting the interior of buildings; (b) used on furniture; (c) scraped or rubbed down from a surface through any dry process; (d) removed by burning; or (e) recycled into non-lead production processes.		
17. Disposal of lead waste An employer or self-employed person shall as far as is reasonably practicable (a) recycle all lead waste, but not into non-lead production processes; (b) ensure that all collected lead waste is placed into containers that will prevent the likelihood of exposure during handling; (c) ensure that all vehicles, re-usable containers and covers which have been in contact with lead waste are cleaned and decontaminated after use, in such a way that such vehicles, containers or covers do not cause a hazard inside or outside the premises concerned; (d) ensure that all lead waste that can cause exposure to lead, is disposed of only on sites	17. Labelling of lead An employer must- (1) ensure that all lead used, handled or stored at the workplace is identified and correctly labelled; (2) ensure that a container labelled for lead is used only for the use, handling or storage of lead; (3) ensure that when lead is transferred or decanted at the workplace, from its original container into a destination container, the destination container is correctly labelled for lead.	Order / flow of heading should align with RHCA Correctly Labelled needs to be explained in a subreg similar to the RHCA	(2) Subject to the provisions of subregulation (1), lead and lead containing products are correctly labelled, if the selection and use of label elements is in accordance with the GHS and is packed in a container that has a label- (a) that includes- (i) the product identifier and where applicable the UN proper shipping name; (ii) the chemical identity of all ingredients, contributing to the final GHS classification of the lead and lead containing products; (iii) the name, address, business and telephone number of the manufacturer; or the importer; (iv) an emergency telephone number; (v) applicable signal word; (vi) hazard statement; (vii) precautionary statement; and (viii) hazard pictogram consistent with the GHS; (b) which may include- (i) the quantity of lead

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
specifically designated for this purpose in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989) and the National Environmental Management Act, 1998 (Act No. 107 of 1998), and in such a manner that it does not cause a hazard inside or outside the site concerned; (e) ensure that all persons involved in the collection, transport and disposal of lead waste and who may be exposed to that waste, are provided with suitable personal protective equipment; and (f) ensure that, in cases where the services of a waste disposal contractor are used, a provision is incorporated into the contract stating that the contractor too shall comply with the provisions of these Regulations.		Remove first aid because it's a repeat	in the package, unless this quantity is specified elsewhere on the package; (ii) the quantity of each HCA ingredient, other than lead; (iii) any information about the hazards and emergency procedures relevant to lead, not otherwise included in the hazard statement or precautionary statement; (iv) first aid measures; (v) classification of the lead and lead containing product, made in accordance with regulation 3; and (vi) an expiry date, where applicable.
18. Offences and penalties Any person who contravenes or fails to comply with any provision of regulation 3, 4, 5, 6, 7, 8, 9, 10, 11(1), 11(2), 12, 13, 14, 15, 16, 17(a), 17(b), 17(c), 17(e) or 17(f) shall be guilty of an offence and liable on conviction to a fine or imprisonment for a period not exceeding six months and, in the case of a continuous offence, to an additional fine of R200 for each day on which the offence continues or additional imprisonment of one day for each day on which the offence continues: Provided that the period of such additional imprisonment shall in no case exceed 90 days.	18. Disposal of lead waste An employer or self-employed person must as far as is reasonably practicable ensure that- (1) all lead waste is classified and disposed of as waste in terms of the following legislation, as updated from time to time- (a) National Environmental Management: Waste Act, 2008, (Act no 59 of 2008), (b) Waste classification and management regulations, 2013; (c) National norms and standards for the assessment of waste for landfill disposal, 2013; (d) National norms and standards for disposal of waste to landfill, 2013;		
	(2) contaminated disposable PPE is disposed of as lead contaminated waste;		
	(3) all collected lead waste is placed into containers that will prevent exposure during handling;		
	(4) all vehicles, re-usable containers and covers which have been in contact with lead waste, are cleaned and decontaminated after use, in such a		

CURRENT	NEW/AMENDED	COMMENTS	PROPOSAL
	way that such vehicles, containers or covers, do not cause a hazard inside or outside the premises concerned;		
	(5) all persons involved in the collection, transport and disposal of lead waste and who may be exposed to that waste, are provided with suitable information, training and personal protective equipment; and		
	(6) in cases where the services of a waste disposal contractor are used, a provision is incorporated into the contract stating that the contractor must comply with the provisions of these regulations.		
19. Repeal of Regulations The Lead Regulations published under Government Notice No. R.586 of 22 March 1991, are hereby repealed.	19. Offences and penalties Any person who contravenes or fails to comply with any provision of regulation 3, 4, 5, 6, 7, 8, 9, 10, 11(1), 11(2), 12, 13, 14, 15, 16, 17 and 18 shall be guilty of an offence and liable on conviction to a fine or imprisonment for a period not exceeding six months and, in the case of a continuous offence, to an additional fine of R200 for each day on which the offence continues or additional imprisonment of one day for each day on which the offence continues: Provided that the period of such additional imprisonment must in no case exceed 90 days.		
20. Short title These Regulations shall be called the Lead Regulations, 2001.	20. Repeal of regulations The Lead Regulations published under Government Notice No. R. 236 of 28 February 2002, are repealed 18 months after the date of promulgation of these regulations.		
	21. Short title These regulations shall be called the Lead Regulations, XXXX;		