REGULATIONS FOR HAZARDOUS CHEMICAL AGENTS, 2021

CHIEF DIRECTORATE OCCUPATIONAL HEALTH AND SAFETY

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Definitions:

"hazardous chemical agent" or **"HCA"** means a GHS-aligned chemical agent as provided for in Annexure 1;

"GHS hazard classification" means the GHS hazard classes and hazard categories assigned to HCAs;

Definitions:

"safety data sheet" or **"SDS"** means a document that is aligned to the GHS, providing information on hazard classification, properties of hazardous chemicals, procedures for handling or working with hazardous chemicals in a safe manner, and the effects of hazardous chemicals on health and safety at the workplace, and that is prepared in accordance with regulation 14A;

Definitions:

"UN Globally Harmonized System" or **"GHS"** means the Globally Harmonized System of classification and labelling of chemicals, a guidance document developed by the United Nations for standardising and harmonising the classification and labelling of chemicals globally, as may be updated from time to time, commonly known as the UN Purple Book;

Information, instruction and training

An employer who undertakes work which is liable to expose an employee to an HCA must, before any employee is exposed or may be exposed, after consultation with the health and safety committee established for that section of the workplace, provide that employee with suitable and sufficient information, instruction and training, as well as thereafter inform, instruct and train that employee at intervals as may be recommended by that health and safety committee.

Information, instruction and training (2)

The information, instruction and training must include—

- in regard to these regulations for HCAs—
  - the chemical substance regulations that are in place that govern all aspects of HCA use at the workplace;
  - the legislated OELs that are in place; and
  - the duties of persons who are likely to be exposed to an HCA,
- details of the HCAs to which the employee is likely to be exposed at the workplace, including—
  - the names of the HCAs and where they may be found in the workplace;
  - information on the potential harmfulness of the HCAs at the workplace; and
  - significant findings of the HCA exposure assessment,

Information, instruction and training (3)

The information, instruction and training must include-

- information on how to access the relevant SDSs;
- the information that each part of an SDS provides;
- the information that each part of the label on containers provides and why the information is being provided;
- the work practices and procedures that must be followed for the use, handling, storage, transportation, spillage and disposal of an HCA, in emergency situations, as well as for good housekeeping and personal hygiene;
- the necessity of personal air sampling, biological monitoring and medical surveillance;
- the need for engineering controls and how to use and maintain them;

Information, instruction and training (4)

The information, instruction and training must include-

- the need for personal protective equipment, including respiratory protective equipment, and its use and maintenance;
- the precautions that must be taken by an employee to protect themselves against health risks associated with exposure, including wearing and using protective clothing and respiratory protective equipment; and
- the necessity, correct use, maintenance and potential of safety equipment, facilities and engineering control measures provided.

Information, instruction and training (5)

- An employer must give written instructions of the procedures to be followed in the event of spillages, leakages or any similar emergency situations to the drivers of vehicles transporting an HCA.
- As contemplated in section 37 of the Act, the employer and mandatary must agree in writing to the arrangements and procedures between them to ensure compliance by the mandatary with information, instruction and training requirements specified.

Air monitoring

Where the inhalation of an HCA is concerned, an employer must ensure that the measurement programme of the airborne concentrations of the HCA to which an employee is exposed, is—

- carried out in accordance with the provisions of these regulations;
- 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 to comment thereon;
- carried out by an approved inspection authority; and
- representative of the exposure of an employee to the airborne HCA.

Air monitoring (2)

In order to comply with the provisions of subregulation (1)(d), an employer must—

- ensure that the measurement programme, 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 Chapter 3 and 4 and Technical Appendix A of the OESSM: Provided that such sample size must be chosen for the top 10% of the group at the 95% confidence level for an HCA with a maximum limit, and for the top 10% of the group at the 90% confidence level for an HCA with a restricted limit; and

Air monitoring (3)

An employer must ensure representative measurements are carried out at least every 24 months for an HCA with an OEL-ML or an OEL-RL as listed in Table 2 or 3 of Annexure 2.

Prohibitions

No person may, as far as is reasonably practicable—

- use compressed air or permit the use of compressed air to remove particles of an HCA from any surface or person;
- smoke, eat, drink or keep food or beverages in a respirator zone or permit any other person to smoke, eat, drink or keep food or beverages in that zone;
- use statements such as "non-toxic", "non-harmful", "non-polluting" or "non-hazardous" or similar statements indicating the HCA as not hazardous, or any other statements that are inconsistent with the HCA's GHS classification on the label or packaging of any HCA; and

Prohibitions (2)

No person may, manufacture, procure, use, handle or store within the workplace—

- a prohibited HCA as listed in Table 1 of Annexure 2;
- ozone-depleting substances provided for in the Regulations regarding the Phasing-Out and Management of Ozone-Depleting Substances; and
- persistent organic pollutants prohibited by the Prohibition on the Import, Export, Possession, Acquisition, Sale, Use and Disposal of Agricultural Remedies, under section 7 of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947.

Classification of hazardous chemical agents

The manufacturer or importer of a chemical agent must, before it is supplied to a workplace—

- determine whether the chemical agent is an HCA by carrying out a hazard assessment referencing the cut-off values provided in Tables 4 and 5 of Annexure 1;
- if the substance, mixture or article is an HCA, ensure that a GHS classification is carried out for the HCA; and
- review the GHS classification should a change in the composition of the HCA be made

Safety data sheet (SDS): Chief Directorate OHS

A safety data sheet for an HCA must be—

prepared by an importer or manufacturer before manufacture and, if this is not reasonably practicable, immediately after manufacture but before import: Provided that the safety data sheet is—

- GHS compliant;

Safety data sheet (2):

Provided that the safety data sheet is—

- classified for the HCA,
- reviewed at least once every five years;
- amended whenever necessary to ensure that it contains correct and current information, aligned to its GHS classification required by regulation 14(c), which includes new data regarding the hazard presented by an HCA that changes its classification in a category or subcategory of a hazard class or results in its classification to another hazard class; and
- given the most recent applicable date, which may be the date of first issue, review or amendment;

Safety data sheet (3):

A safety data sheet for an HCA must – provided by a manufacturer or importer to—

- a supplier of the HCA to a workplace; and
- any person who is likely to be affected by the HCA;

Safety data sheet (4):

A safety data sheet for an HCA must –

- provided by a supplier of the HCA—
- when the HCA is first supplied to the workplace;
- if the SDS for the HCA is amended; and
- to any person at the workplace if they request the SDS; and

Safety data sheet (5):

- obtained by the employer from the manufacturer, importer or supplier of the HCA and provided to—
- any person who is involved in using, handling, or likely to be exposed to, the HCA at the workplace;
- any person at the workplace who needs the information to assess risk related to health and safety;
- any health practitioner who needs the information to treat a person who has been exposed to the HCA; or
- an emergency service professional who requires the information to fulfil his duties as an emergency respondent.

Safety data sheet (6):

Updating of SDS do not apply to a manufacturer or importer of an HCA who has not manufactured or imported that HCA in the past five years.

The information in the GHS compliant safety data sheet must be presented using the following 16 headings in the order given below, as may be updated from time to time:

- Section 1: identification of the substance/mixture and of the company/undertaking;
- Section 2: hazards identification;
- Section 3: composition/information on ingredients;

Safety data sheet ():

- Section 4: first-aid measures;
- Section 5: firefighting measures;
- Section 6: accidental release measure;
- Section 7: handling and storage;
- Section 8: exposure controls/personal protection;
- Section 9: physical and chemical properties;
- Section 10: stability and reactivity;
- Section 11: toxicological information;
- Section 12: ecological information;
- Section 13: disposal considerations;
- Section 14: transport information;
- Section 15: regulatory information; and
- Section 16: other information.

Labelling of hazardous chemical agents

With regard to the labelling of an HCA—

- a manufacturer or importer of an HCA must ensure that the HCA is correctly labelled as soon as practicable after the HCA is manufactured or imported;
- a supplier of an HCA may not supply an HCA if it is not correctly labelled;
- a retailer of an HCA may not supply any consumer product containing an HCA to be used in a workplace if it is not correctly labelled; and

Labelling of hazardous chemical agents (2)

With regard to the labelling of an HCA an employer must—

- ensure that an HCA that is used, handled or stored at the workplace is correctly labelled;
- ensure that a container labelled for an HCA is used for only the use, handling or storage of that HCA;
- as far as is reasonably practicable, ensure that when an HCA is transferred or decanted at the workplace, from its original container into a destination container, the destination container is correctly labelled for that HCA; and

Labelling of hazardous chemical agents (3)

an employer must—

- ensure that an HCA within pipework is identified by a label or sign or in any other suitable manner, on or near the pipework, subject to the following:
  - Where the product is a mixture of two or more HCAs, the intermediate or finished product name may be used for identification;
  - sampling, loading points or any other termination point of a pipe, where during normal operations an employee may be exposed to an HCA, must be identified; and
  - pipework, including the splitting of flanges, where an employee may be exposed during routine maintenance activities, should be identified as far as is reasonably practicable.

Labelling of hazardous chemical agents

An HCA is correctly labelled if the selection and use of label elements are in accordance with the GHS and if the HCA is packed in a container that has a label—that includes—

- the product identifier and, where applicable, the United Nations proper shipping name;
- the chemical identity of all the ingredients contributing to the final GHS classification of the HCA;
- the name, address, and business telephone number of the manufacturer or importer;
- an emergency telephone number where support is available; and
- a signal word, hazard statement, precautionary statement and hazard pictogram consistent with the HCA's GHS classification, and

Labelling of hazardous chemical agents

An HCA is correctly labelled if the selection and use of label elements are in accordance with the GHS and if the HCA is packed in a container that has a label- that may include—

- the quantity of the HCA in the package, unless this quantity is specified elsewhere on the package;
- the quantity of each HCA ingredient;
- any information about the hazards, and first-aid and emergency procedures relevant to the HCA, not otherwise included in the hazard statement or precautionary statement;
- first-aid measures; and
- an expiry date, where applicable.

Annexure 3 (Labelling)

On any label of an HCA the pictogram size must be at least 16 x 16 millimetres where possible, with a red boarder and minimum letter size of 1,2 mm. For further guidance on labelling refer to the European Chemicals Agency (ECHA), Guidance on labelling and packaging of 2008.

Packaging of hazardous chemical agents

Packaging for an HCA must satisfy the relevant requirements of the UN Transport of Dangerous Goods, with respect to packaging and fastenings, or, where applicable, the UN IMO International Maritime Dangerous Goods Code, including the following requirements:

- The manufacturer or importer of an HCA must ensure that the HCA is correctly packed, as soon as reasonably practicable after manufacturing or importing.

Packaging of hazardous chemical agents

(2)

the expression "correctly packed" means—

- that the packaging is in sound condition;
- that the packaging is durably and legibly marked;
- that the packaging will safely contain the chemical for the time the chemical is likely to be packed;
- that the packaging is made of a material that is compatible with the HCA and will not be adversely affected by the HCA;
- that the packaging and fastenings are strong and solid throughout to ensure that they will not loosen and will meet the normal stresses and strains of handling; and
- that the packaging does not usually contain food or beverages and cannot mistakenly be identified as containing food or beverages.

Packaging of hazardous chemical agents

(3)

- Where a retailer supplies an HCA in a container that is supplied by the person purchasing the chemical, the retailer must ensure that the HCA is correctly packed or repacked.
- Where a retailer supplies the person purchasing the chemical with a container, the retailer must ensure that the HCA is correctly packed or repacked.
- The employer or self-employed person must receive, use, handle or store an HCA only if it is correctly packed.

Packaging of hazardous chemical agents

(4)

An employer must—

- as far as reasonably practicable, ensure that a container or a vehicle in which an HCA is transported is clearly identified as transporting an HCA; and
- ensure that such transportation complies with the National Road Traffic Act, 1996 (Act No. 93 of 1996).

Disclosure of ingredient identity

Where an ingredient in an HCA causes the correct classification of the chemical, to include a hazard class and hazard category—

- referred to in Table 4 of Annexure 1, the chemical identity of the ingredient detailed must be disclosed; or
- referred to in Table 5 of Annexure 1, the chemical identity of the ingredient may be disclosed by its generic name if—
  - the identity of the ingredient is commercially confidential;
  - the ingredient does not cause the correct classification of the hazardous chemical to include any other hazard class and hazard category in Table 4 of Annexure 1; and
  - an OEL for the ingredient has not been established; and
- in all other cases not included in subregulation (1)(b), the ingredient must be disclosed by its chemical identity.

Disclosure of ingredient identity (2)

The identity of the ingredient of an HCA in terms of subregulation (1)(a), or the generic name of the ingredient of the hazardous chemical in terms of subregulation (1)(b), must be on the label and SDS.

Disclosure of ingredient identity

Where an ingredient of an HCA must be disclosed in the proportion must be disclosed as follows:

- Where the exact proportion of the ingredient is not commercially confidential, the exact proportion is expressed as a percentage of the chemical by mass or volume; or
- where the exact proportion of the ingredient is commercially confidential, the exact proportion is expressed as a percentage of the chemical by mass or volume in terms of the following ranges within which the exact proportion fits:

- < 10%;
- 10 to 30%;
- 30 to 60%;
- > 60%;
- a range that is narrower than the ranges provided.

Repeal of regulations

- The Regulations for Hazardous Chemical Substances, 1995, published as Government Notice No. R. 1179 of 25 August 1995, are hereby repealed.

Short title and commencement

- These regulations shall be called the Regulations for Hazardous Chemical Agents, 2021.
- Regulations 13(d), 14, 14A, 14B, 14C, 14D; Annexure 1, Tables 1, 2, 3, 4 and 5; and Annexure 2, Tables 1, 2, 3 and 4 shall come into effect 18 months after the promulgation of these regulations.

Annexures

Annexure 1,

- Table 1-GHS HAZARD CLASSES – PHYSICAL HAZARDS,
- 2 -GHS HAZARD CLASSES – HEALTH HAZARDS,
- 3-GHS HAZARD CLASSES – ENVIRONMENTAL HAZARDS,
- 4 -IDENTITY OF INGREDIENTS TO BE DISCLOSED and
- 5-GENERIC NAMES USED TO DISCLOSE IDENTITY OF INGREDIENTS.

Annexure 2,

- Table 1- PROHIBITED HAZARDOUS CHEMICAL AGENTS,
- 2 - OCCUPATIONAL EXPOSURE LIMITS – MAXIMUM LIMITS
- 3 - OCCUPATIONAL EXPOSURE LIMITS - RESTRICTED LIMITS and
- 4 - BIOLOGICAL EXPOSURE INDICES (BEIs) FOR HAZARDOUS CHEMICAL AGENTS

Annexure 3, Guidance notes

Annexure 2 (OEL & BEI)

- "OEL-ML" or "occupational exposure limit-**maximum limit**" means an HCA as listed in Table 2 of Annexure 2 (OLD CL)

- "OEL-RL" or "occupational exposure limit-**restricted limit**" means an HCA as listed in Table 3 of Annexure 2 (OLD RL)

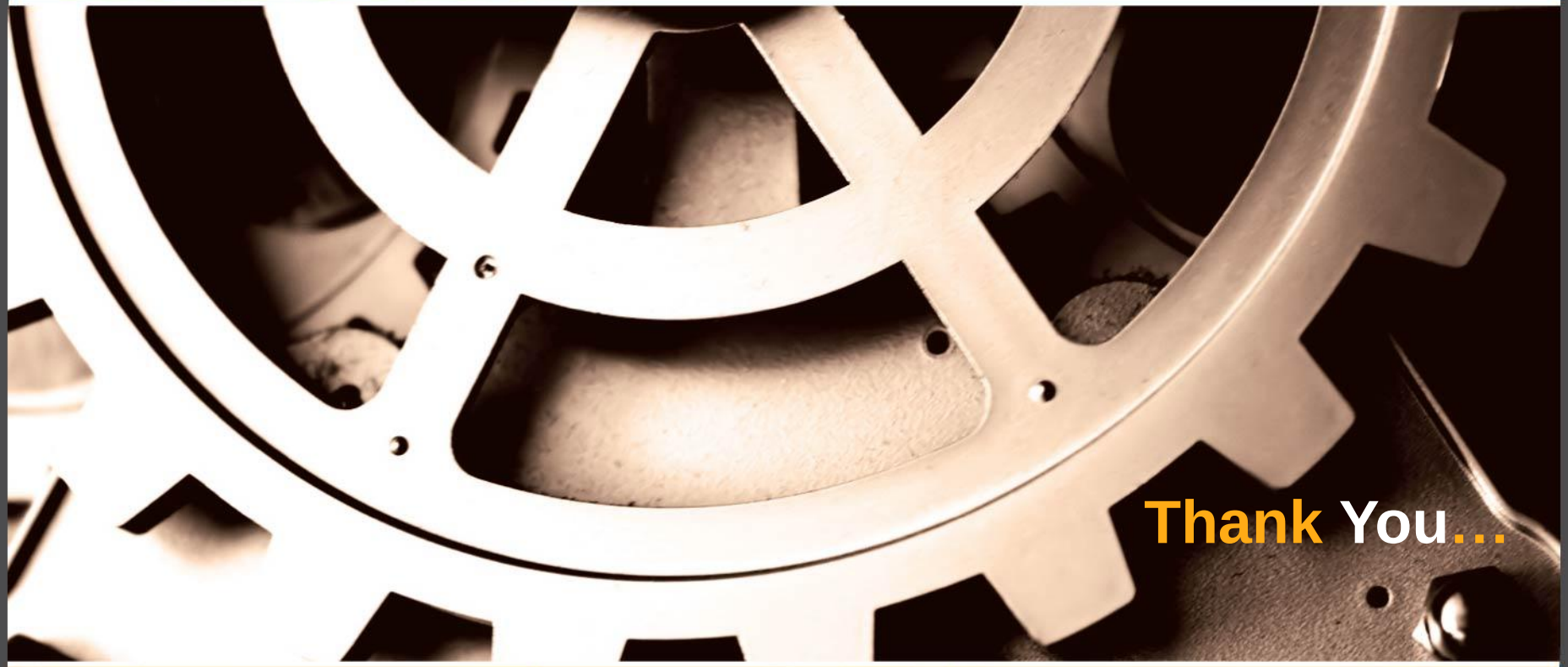
Annexure 2 (OEL & BEI)

Rules:

- OEL's set at 2 x ACGIH TLV, but
  - silica, dust, other(exceptions)
- BEI's set at the ACGIH BEI value (guidance values)
- No OEL / BEI below the ACGIH TLV / BEI
- No OEL for mixtures
- Where no OEL is prescribed – implement reasonably practicable limit

Annexure 2 (OEL & BEI)

1995	2021
Occupational Exposure Limits- Control Limits - 32	Occupational Exposure Limits- *Maximum Limits* - 31
Occupational Exposure Limits- Recommended Limits - 673	Occupational Exposure Limits- *Restricted Limits*- 455
Biological Exposure Indices (BEI) -29	Biological Exposure Indices (BEI) -43



Thank You…

Enquiries: elize.lourens@labour.gov.za