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DENR ADMINISTRATIVE ORDER
No. 2015-09

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SUBJECT : Rules and Procedures for the Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances

Pursuant to Sections 4(c) and 15 of Republic Act (RA) No. 6969, otherwise known as the *"Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990"*, DENR Administrative Order (DAO) No. 29, Series of 1992, captioned *"Implementing Rules and Regulations of Republic Act 6969"*, and the Joint DTI-DENR-DA-DOF-DOH-DILG-DOLE-DOTC Administrative Order (JAO) No. 01 Series of 2009 dated 25 May 2009, on *"The Adoption and Implementation of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)"*, the following rules and new regulations, procedures and requirements for industrial toxic chemicals are hereby promulgated:

Section 1. Policy and Objectives. In reference to the State's policy under Section 2 of RA No. 6969, and pursuant to the objective set in Section 4(c) of the same law, this Order aims to inform and educate the populace regarding the hazards and risks attendant to the life cycle of toxic chemicals and other selected hazardous substances and mixtures, consistent with the following chemical safety objectives:

1.1 Develop and define the procedural guidelines and requirements to be followed by the concerned stakeholders in the preparation and submission of Safety Data Sheet (SDS) and labels of industrial toxic chemicals and mixtures.

1.2 Strengthen the implementation of proper labelling and re-labelling requirements of industrial toxic chemicals and mixtures.

1.3 Promote awareness and capabilities on the adoption of concepts and principles of the Globally Harmonized System (GHS) for safe use and management of industrial toxic chemicals and mixtures.

Sec. 2. Definition of Terms. As used in this Order, the following shall be defined as:

2.1 Chemical Control Order (CCO) - a policy issuance that prohibits, limits or regulates the use, manufacture, import, transport, process, storage, possession and wholesale of priority chemicals that the DENR has determined to be regulated, phased-out or banned due to the serious risks they pose to public health, workplace, and the environment.

2.2 Chemical - any organic or inorganic substances of a particular molecular identity including any element or uncombined chemical and any combination of such substances, or any mixture of two, excluding radioactive materials.

2.3 Chemical Abstract Service (CAS) Registry Number – unique numeric identifier code assigned to a substance when it enters the CAS Registry database.

2.4 Chemical Substance - any organic or inorganic substances or a particular mol
2.5 ecular identity, excluding radioactive materials, but including any element or uncombined chemical; and any combination of such substances occurring in whole or in part as a result of chemical reaction or occurring in nature.

2.5 Confidential Business Information (CBI) – an information considered as trade secret, i.e., an information which: (a) is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; (b) has commercial value because it is secret; and (c) has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret. (Reference: World Trade Organization (WTO) Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), Article 39, paragraph 2).

2.6 Container - any bottle, box, drum, cylinder, bag, barrel, vessel, tank, among others, that contains hazardous chemical substances and mixtures.

2.7 GHS - a system for standardizing and harmonizing the classification and labelling of chemicals. It is a logical and comprehensive approach to: (a) defining health, physical and environmental hazards of chemicals; (b) creating classification processes that use available data on chemicals for comparison with the defined hazard criteria; and (c) communicating hazard information, as well as protective measures on labels and SDS.

2.8 Hazards - the inherent characteristics of chemical substances and mixtures that are existing in the workplace and in the environment, regardless of quantity that are potentially dangerous or which have the capacity to harm, i.e., its capacity to interfere with normal biological processes and its capacity to burn, explode, corrode, etc.

2.9 Harmonization - establishing a common and coherent basis for hazards classification and communication of chemicals, and the appropriate elements relevant to means of transport, consumers, workers and environmental protection can be selected/chosen.

2.10 International Air Transport Association (IATA) - is the trade association of the world's airlines which supports many areas of aviation activities and helps formulate industry policies on critical aviation issues.

2.11 International Maritime Dangerous Goods (IMDG) Code - a uniform international code for the transport of dangerous goods by sea, covering such matters as packing, containers, traffic and storage, with particular reference to the segregation of incompatible substances.

2.12 International Union of Pure and Applied Chemistry (IUPAC) - a long-standing global authority on chemical nomenclature and terminology. Identification of substances by their IUPAC name is widespread practice worldwide and provides the standard basis for identifying substances in an international and a multilingual context (Reference: EC 1272/2008).

2.13 Label - an appropriate group of written, printed or graphic information elements concerning a hazardous product, selected as relevant to the target sector(s), that is affixed to, printed on, or attached to the immediate container of a hazardous product, or to the outside packaging of a hazardous product (Reference: UN GHS of Classification and Labelling of Chemicals).

2.14 Mixture - a solution composed of two or more chemicals/chemical substances in which they do not react (Reference: UN GHS of Classification and Labelling of Chemicals).

2.15 New chemical - any chemical substance imported into or manufactured in the country after 31 December 1993, which are not included in the Philippine Inventory of Chemicals and Chemical Substances (PICCS) and re-nominated and distributed by the DENR-EMB in 1995.

2.16 Priority Chemical List (PCL) – a list of existing and new chemicals that DENR has determined to have potential risks to public health, workplace and environment.

2.17 Pre-Manufacture and Pre-Importation Notification (PMPIN) - a process of review of notifications prior to manufacture and importation activities of new chemicals or more chemical substances undertaken by a Chemical Review Committee (CRC).

2.18 Precautionary statement - a phrase and/or pictogram, which describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product, improper storage or handling of hazardous product.

2.19 Product Identifier – the name or number used for a hazardous product on a label or in the SDS, by which the product user can identify the substance or mixture within a particular use setting e.g., transport, consumer or workplace.

2.20 Regulatory Permit/Clearance/Certification - an official document issued by the Environmental Management Bureau (EMB), giving authorization to industrial facilities to import, distribute, use, and transport chemicals / chemical substances and dispose hazardous wastes.

2.21 Safety Data Sheet – a document prepared by the manufacturer that contains important physical characteristics, ecological, health, safety and toxicological information on chemical substances or mixtures, or ingredients used at the workplace, transported, and utilized by consumer.

2.22 Toxic chemicals – substances or mixtures that are harmful to the environment and/or to human health on short-term or long-term bases if inhaled, swallowed, or absorbed through the skin.

2.23 United Nations Recommendations on the Transport of Dangerous Goods (UN RTDG) - international and domestic requirements for chemical packaging and transportation, and the category and code stipulated for transportation, including dangerous goods code, packaging category, packaging mark, packaging methods, UN code and matters needing attention for transportation (Reference: UN Recommendations on the Transport of Dangerous Goods Orange Book).

2.24 Worker - any person from an industrial or service sector exposed to industrial toxic chemicals and mixtures, (e.g., laboratory personnel, emergency responder, transporter, warehouse staff, etc).

Sec. 3. Scope and Coverage. This Order shall cover all toxic chemical substances and mixtures manufactured, imported, distributed, used, stored and transported in the Philippines. These include toxic chemicals and chemical substances under the priority chemical list, chemical control order, high volume toxic chemicals, dangerous chemicals identified under IATA and IMDG and mixtures used by the industrial sector. This Order shall also address the classification, labelling and SDS requirements in order to convey information on the chemical hazards as well as to protect the public and the environment from their potential health risks and effects.

Sec. 4. Implementation Timeline. Complete and strict compliance with this Order for the following chemicals shall be in accordance with the following schedule:

Chemicals	Effectivity
4.1 Single substances and compounds covered under CCO and PCL Chemicals initially listed	2016
4.2 High Volume Toxic Chemicals	2017
4.3 Toxic Chemicals under the IATA and IMDG list of Dangerous Goods	2018
4.4 Mixtures	2019

Sec. 5. General Procedures and Requirements. In addition to the general requirements under Title II of DAO No. 29, Series of 1992, and other pertinent DAOs for various controlled chemicals, the following requirements and procedures on SDS preparation and labelling of toxic chemicals and mixtures are imposed:

5.1 Preparation and Submission of SDS and Labels

5.1.1 All chemical importers, manufacturers, suppliers and distributors shall prepare SDS and labels for all covered industrial toxic chemical and mixtures which meet the harmonized criteria for physical, health and environmental hazards under GHS.

5.1.2 All chemical importers, manufacturers, suppliers and distributors shall submit SDS and labels using GHS format when securing permits, licenses and clearances, duly transmitted with a notarized letter assuming full accountability and in accordance with the standard operating procedures (SOPs).

5.2 Screening, Review and Verification

5.2.1 SDS and labels submitted shall be initially screened for GHS compliance by the Chemical Management staff of EMB and reviewed by the GHS Review Committee. Verification by the GHS Review Committee may be undertaken, if necessary.

5.2.2 Information sources from recognized international organizations and principals may be used for verification.

5.3 Inspection

5.3.1 SDS of all toxic chemicals used shall be accessible and available to all workers at all times.

5.3.2 All covered toxic chemicals and mixtures shall be labeled and marked visibly.

5.3.3 Appropriate pictograms, signal words, hazard and precautionary statements shall be placed at the storage facility/premises and on the transportation/vehicle.

5.4 Training on the interpretation/identification of labels and use of SDS shall be conducted by a competent person within the company, in accordance with the GHS requirements/ guidelines, to ensure that information is properly understood by the workers.

Sec. 6. Specific Requirements and Standards. The following detailed components and elements should be indicated in the hazard communication of all industrial toxic chemicals and mixtures expressed through labels and SDS:

6.1 Labelling or Re-labelling Requirements

6.1.1 The importer, manufacturer, supplier and distributor shall ensure that each container of chemical substances within the premise/facility and in transport is labeled, tagged or marked.

6.1.2 GHS Labels shall contain the appropriate product identifier, supplier identifier, chemical identity, symbols, pictograms, signal words, hazard and precautionary statements, placed at the storage facility/premises, and on the transportation/vehicle to clearly convey the hazards and risks and important information about the chemical substances and mixtures.

6.1.2.1 Product identifiers /declaration of ingredients:

6.1.2.1.1 The name or number used for a hazardous product on a label shall be consistent with the composition declared in SDS.

6.1.2.1.2 The substance or mixture shall include the chemical identity of the substances, consistent with the composition declared in SDS.

6.1.2.1.3 UN number proper shipping shall be used on the package if a substance or mixture is covered under UN RTDG.

6.1.2.1.3 The labels for containers of industrial toxic chemical substances or mixtures must clearly indicate the ingredients unless covered by the CBI agreement.

6.1.2.2 Supplier identification:

The name, address and telephone number of the manufacturer or supplier of the substance or mixture shall be indicated on the label, consistent with the information used in SDS.

6.1.2.3 Chemical Identity:

The labels shall also include the chemical identity as determined by IUPAC and by the CAS Registry number or technical name.

6.1.2.4 Symbols:

6.1.2.4.1 This governs use and reproduction of the pictograms and standard symbols in GHS.

6.1.2.4.2 The GHS Hazard pictograms used shall be in the shape of a square, set at point, and in white, red and black colors.

6.1.2.4.3 For health hazards, the following precedence shall apply:

6.1.2.4.3.1 If the skull and crossbones apply, the exclamation mark shall not appear.

6.1.2.4.3.2 If the corrosive symbol applies, the exclamation mark shall not appear where it is used for skin or eye irritation.

6.1.2.4.3.3 If the health hazard symbol appears for respiratory sensitization, the exclamation mark shall not appear where it is used for skin sensitization or for skin or eye irritation.

6.1.2.5 Signal word:

6.1.2.5.1 This is a word that expresses the relative severity of hazard (level of hazard), which warns the users of the potential impacts. Signal words used are "*Danger*" *and* "*Warning*". However, if the signal word "*Danger*" applies, the signal word "*Warning*" should not appear.

6.1.2.5.2 Use of signal word depends on the result of the classification based on the criteria for GHS.

6.1.2.6 Hazard statements:

6.1.2.6.1 A complete hazard statement shall consist of the hazard statement, including the optional use of a hazard statement code (H-Code).

6.1.2..6.2 There will be a single harmonized statement for each hazard category within each hazard class.

6.1.2.6.3 Hazard statement depends on the result of classification based on the criteria for GHS.

6.1.2.6.4 All assigned hazard statements shall appear on the label, except for the following conditions:

6.1.2.6.4.1 If the statement H410 *"Very toxic to aquatic life with long lasting effects*" is assigned, then the statement H400 "*Very toxic to aquatic life*" may be omitted.

6.1.2.6.4.2 If the statement H411 *"Toxic to aquatic life with long lasting effects*" is assigned, then the statement H401 *"Toxic to aquatic life*" may be omitted.

6.1.2.7 Precautionary statements:

6.1.2.7.1 A complete precautionary statement shall consist of the precautionary statement, including the optional use of a precautionary statement code (P-Code).

6.1.2.7.2 Precautionary statements shall include prevention, response in cases of accidental spillage and exposure, handling, storage and disposal information.

6.1.2.7.3 All assigned precautionary statements shall appear on the label, except for the following conditions:

6.1.2.7.3.1 If the statement H412 *"Harmful to aquatic life with long lasting effects"* is assigned, then the statement H402 *"Harmful to aquatic life"* may be omitted.

6.1.2.7.3.2 If the statement H314 *"Causes severe skin burns and eye damage*" is assigned, then the statement H318 *"Causes serious eye damage"* may be omitted.

6.1.2.7.4 GHS label sizes and requirements shall depend on the size of the container. The minimum label dimensions are based on the container size in which the labels and sizes specifications are given in Guidance Manual on Labeling.

6.2 SDS Requirements

6.2.1 Identification of the toxic substance or mixture and the manufacturer or supplier:

6.2.1.1 Name of the substance or mixture preparation;

6.2.1.2 Complete name, address and telephone number of the manufacturer or supplier;

6.2.1.3 Recommended use(s) of the chemical substance or mixture;

6.2.1.4 Restrictions of use(s) of the chemical substance or mixture; and

6.2.1.5 Emergency information services and phone/contact numbers of the manufacturer, importer, supplier or local distributor.

6.2.2 Hazards identification:

6.2.2.1 Description of the hazards of the substance/mixture;

6.2.2.2 Appropriate signal word and hazard statements;

6.2.2.3 Precautionary statements associated with hazards described in this section; and

6.2.2.3 Hazard symbols may be provided as pictograms or graphical reproduction of the symbols in red, black and white background with the meaning of the symbol.

6.2.3 Composition and information on ingredients:

6.2.3.1 The chemical shall be identified by its:

6.2.3.1.1 CAS Registry Number;

6.2.3.1.2 IUPAC names, CAS number, Brand names as may be appropriate; and

6.2.3.1.3 Product code.

6.2.3.2 Impurities and stabilizing additives, which are classified and which contribute to the classification of the substance;

6.2.3.3 Concentration or concentration ranges of all hazardous ingredients, hazardous to health or the environment within the context of GHS, and are present above their cut-off levels; and

6.2.3.4 Ranges of percentages of chemical in descending order by mass or by volume.

6.2.4 First-aid measures:

6.2.4.1 Provide first-aid instructions by relevant routes of exposure (e.g. inhalation, skin and eye contact and ingestion):

6.2.4.1.1 Immediate medical attention is required and if delayed, effects can be expected after exposure;

6.2.4.1.2 Movement of the exposed individual to an area where there is fresh air;

6.2.4.1.3 Removal and handling of clothing and shoes from the individual; and

6.2.4.1.4 Personal protective equipment (PPE) should be used by first-aid responders.

6.2.4.2 Provide information on the most important immediate and chronic (delayed) symptoms/effects.

6.2.4.3 Provide information on clinical testing and medical monitoring for delayed effects, specific details on antidotes (if known) and contraindications.

6.2.5 Fire-fighting measures:

6.2.5.1 Provide information on the appropriate fire extinguishing media and indicate any inappropriate extinguishing media for a particular situation involving the substance or mixture;

6.2.5.2 Provide measures against specific hazards that may arise from the chemical, such as hazardous combustion products that form when the substance or mixture burns, toxic fumes of carbon monoxide produced by burning or oxides of sulphur and nitrogen produced during combustion; and

6.2.5.3 Protective actions to be taken during the fire-fighting and appropriate PPE to be used.

6.2.6 Accidental release measures:

6.2.6.1 Provide emergency procedures and appropriate PPEs for any other issues related to spills and releases;

6.2.6.2 Methods and materials used for containment and clean-up techniques; and

6.2.6.3 Environmental Precautions.

6.2.7 Handling and storage:

6.2.7.1 Proper instructions and consideration on the safe handling and storage of substances or mixtures on:

6.2.7.1.1 Ventilation requirements;

6.2.7.1.2 Specific designs for storage rooms/ vessels;

6.2.7.1.3 Quantity limits under storage conditions; and

6.2.7.1.4 Packaging compatibilities.

6.2.7.2 Conditions for safe storage include:

6.2.7.2.1 Any information related to protection against natural disasters/risks;

6.2.7.2.2 Incompatibilities to avoid explosive atmosphere, corrosive conditions, flammability hazards, evaporative conditions, incompatible substances or mixtures, and potential ignition sources; and

6.2.7.2.3 Measures against the effects of weather conditions, ambient pressure, temperature, sunlight, humidity and vibration.

6.2.7.3 Advice on how to maintain the integrity of the substance or mixture by the use of stabilizers and anti-oxidants.

6.2.8 Exposure controls and personal protection:

6.2.8.1 Identify the PPE needed to minimize the potential for illness or injury due to exposure to the substance or mixture.

6.2.8.2 Specify the type of PPE where special requirements may exist, consistent with occupational hygiene practices, and in conjunction with other control measures, including engineering controls, ventilation and isolation

6.2.8.3 Specify appropriate exposure control measures related to the intended modes of use of the substance or mixture.

6.2.9 Physical and chemical properties:

Identify the following properties and specify appropriate units of measure and/or reference conditions and the method of determination for the interpretation of the numerical value:

6.2.9.1 Appearance (physical state, colour etc);

6.2.9.2 Odor;

6.2.9.3 Odor threshold;

6.2.9.4 pH;

6.2.9.5 Melting point and freezing point;

6.2.9.6 Initial boiling point and boiling range;

6.2.9.7 Flash point;

6.2.9.8 Evaporation rate;

6.2.9.9 Flammability (solid, gas);

6.2.9.10 Upper/lower flammability or explosive limits;

6.2.9.11 Vapour pressure ;

6.2.9.12 Vapour density;

6.2.9.13 Relative density;

6.2.9.14 Solubility(ies);

6.2.9.15 Partition coefficient n-octanol/water;

6.2.9.16 Auto-ignition temperature;

6.2.9.17 Decomposition temperature; and

6.2.9.18 Viscosity

6.2.10 Stability and Reactivity:

6.2.10.1 Chemical stability;

6.2.10.2 Hazardous reactions;

6.2.10.3 Conditions to avoid (e.g. static discharge, shock or vibration);

6.2.10.4 Incompatible materials;

6.2.10.5 Hazardous decomposition products; and

6.2.10.6 Reactivity information may be based on general data for the class or family of chemical if such data adequately represents the anticipated hazard of the substance or mixture.

6.2.11 Toxicological information:

6.2.11.1 Concise and complete description of the various toxicological (health) effects and the available data used to identify these effects;

6.2.11.2 Likely routes of exposure (e.g. inhalation, ingestion, skin and eye contact);

6.2.11.3 Symptoms related to the physical, chemical and toxicological characteristics;

6.2.11.4 Immediate or delayed effects expected after short or long-term exposure;

6.2.11.5 Acute and chronic health effects relating to human exposure to the substance or mixture;

6.2.11.6 If human data are not available, animal data should be summarized. Identify data source; and

6.2.11.7 Numerical measures of toxicity (such as acute toxicity estimates).

6.2.12 Ecological information:

6.2.12.1 Ecotoxicity (aquatic and terrestrial, where available);

6.2.12.2 Persistence and degradability;

6.2.12.3 Bioaccumulative potential;

6.2.12.4 Mobility in soil; and

6.2.12.5 Other adverse effects to the environnent, such as:

6.2.12.5.1 Environmental fate;

6.2.12.5.2 Ozone depleting potential;

6.2.12.5.3 Photochemical ozone creation potential;

6.2.12.5.4 Endocrine disrupting potential; and

6.2.12.5.5 Global warming potential.

6.2.13 Disposal consideration:

Description of waste residues and information on safe handling and methods of disposal, including the disposal of any contaminated packaging.

6.2.14 Transport/Shipment information:

6.2.14.1 UN number;

6.2.14.2 UN Proper shipping name;

6.2.14.3 Transport Hazard class(es);

6.2.14.4 Packing group, if applicable;

6.2.14.5 Marine pollutant (Yes/No);

6.2.14.6 Special precautions, which a user needs to be aware of or needs to comply with, in connection with transport or conveyance, either within or outside their premises; and

6.2.14.7 Statement on the unavailability of relevant information.

6.2.15 National regulations and references:

6.2.15.1 Indicate safety, health and environmental regulations specific for the chemical substance or mixture in question; and

6.2.15.2 Specify if the product is under a CCO and PCL for local chemical substances or mixtures.

6.2.16 Other information:

6.2.16.1 SDS must be presented in English;

6.2.16.2 Information on preparation and revision of SDS (e.g. pages and date of issuance, date of revision and revision number);

6.2.16.3 An updating of SDS every five (5) years or earlier is a must where there are known changes in product composition that may affect the classification of the substances;

6.2.16.4 SDS shall be composed of sixteen (16) sections, in the order of arrangement and presentation within SDS document based on GHS;

6.2.16.5 Key/legend to abbreviations and acronyms used in SDS; and

6.2.16.6 Literature references and sources of data compiled in SDS.

Sec. 7. GHS Review Committee. A collegial body composed of a multi-sectoral group from the academe, industry, concerned EMB-Regional Office, chemical management group, research and development group and concerned government agencies shall be created through a Special Order to form the GHS Review Committee. The Committee shall review and evaluate the classification, appropriate chemical labelling and SDS in accordance with the adopted GHS. Its composition with duties and responsibilities shall be approved prior to its operation. The Committee shall be headed by the EMB Director, with the Chemical Management Section acting as the Secretariat.

Sec. 8. Confidentiality of Business Information. CBI claims shall be limited to the names of chemicals and their concentrations in mixtures. The rules for CBI shall take priority over the rules for product identification.

No disclosure of any information shall be done except for:

8.1 Instances when the provisions for CBI protection compromise the health and safety of users; and

8.2 Emergency situations.

Sec. 9. Transition Program. To support the effective implementation of this Order, the following activities shall be undertaken:

9.1 Development of capability building program that will initiate research to support the implementation period for high volume chemicals and mixtures;

9.2 Continuing training on GHS courses (basic, intermediate and advance) as well as information, education and communication (IEC) efforts; and

9.3 Discussion/consultation on the building blocks (among sectors) of the country through the National Coordinating Council (Joint Administrative Order 2009-1).

Sec. 10. Revision of Requirements. The DENR, in coordination with other concerned agencies, may review, revise, modify, update and supplement the requirements and procedures applicable to this Order, particularly upon the implementation of GHS concept and principles by majority of industrialized countries.

Sec. 11. Monitoring Procedure. Compliance with the requirements established in this Order shall be monitored regularly by the EMB in collaboration with the GHS Review Committee.

Sec. 12. Penalty Clause. Any person/s found violating any of the provisions specified in this Order shall be subject to administrative violations and fines under Section 15 of RA No. 6969, as well as Section 43, Chapter XII, Title V of DAO 29, Series of 1992, and other existing pertinent laws.

Sec. 13. Separability Clause. Should any provision or portion of this CCO be declared unconstitutional or invalid, all other provisions of this CCO shall remain valid and enforceable.

Sec. 14. Effectivity. This Order shall take effect fifteen (15) days after publication in the Official Gazette or in a newspaper of general circulation and upon acknowledgment of receipt of a copy thereof, by the Office of the National Administrative Register (ONAR).

RAMON J.P. PAJE
Secretary

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
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