



**THE ENVIRONMENTAL MANAGEMENT AND COORDINATION ACT**

**(CAP 387)**

**DRAFT**

**ENVIRONMENTAL MANAGEMENT AND COORDINATION (TOXIC AND  
HAZARDOUS CHEMICALS AND MATERIALS MANAGEMENT)  
REGULATIONS 2019**

**In EXERCISE of powers conferred in sections 92 and 147 of the Environmental Management and Coordination Act, the Cabinet Secretary for Environment and Forestry makes the following Regulations:**

**The Environmental Management and Co-ordination (Toxic and Hazardous Chemicals and Materials Management) Regulations, 2019.**

	<b>PART I: PRELIMINARY</b>
<i>Citation</i>	1. These Regulations may be cited as the Environmental Management and Coordination (Toxic and Hazardous Chemicals and Materials Management) Regulations 2019.
<i>Interpretation</i>	2. In these Regulations unless the context otherwise requires:
	“ <i>Act</i> ” means the Environmental Management and Coordination Act, CAP 387;
	“ <i>Adverse Effect</i> ” means a negative change in the physical environment or biota, including a change in climate, which has a significant deleterious effect on human health or on the composition, resilience and production of natural and managed ecosystems, or on materials useful to mankind;
	“ <i>Advertise</i> ” means making a presentation for the purpose of directly or indirectly promoting the distribution, access and use of toxic and hazardous industrial chemicals or materials;
	“ <i>Applicant</i> ” means a person or an organization that applies to the Authority for permission to perform specific activities connected with toxic and hazardous industrial chemicals or materials;
	“ <i>Article</i> ” means an object which during production is given a special shape, surface or design which determines its functions to a greater degree than does its chemical compositions;
	“ <i>Authority</i> ” means the National Environment Management Authority established under section 7 of the Act;
	“ <i>Banned chemical</i> ” means a chemical all uses of which within one or more categories have been prohibited by final regulatory action, in order to protect human health, the environment or national security;
	“ <i>Bio – accumulation</i> ” means the tendency of a chemical substance to accumulate in the tissues of living organisms and to be passed up through the food chain;
	“ <i>Carcinogenic</i> ” means a chemical or material that has ability to cause cancer;

	<p>“CAS No” means a unique registry number assigned to a chemical by the Chemical Abstract Service;</p>
	<p>“<i>Chemical</i>” means a chemical substance in any form whether by itself or in a mixture or preparation, whether manufactured or derived from nature and for the purposes of the Act includes industrial chemicals, pesticides, fertilizers and drugs;</p>
	<p>“<i>Chemicals in Products or CiP</i>” means chemical substances which are known to be contained in articles or products (such as toys, child care items, cosmetics, tattoo inks, appliances, electronics, flooring, piping, furniture, house and sports carpets etc). Also referred to as Substances in Articles;</p>
	<p>“<i>Contaminants of Emerging Concern</i>” refers to any synthetic or naturally occurring chemical or any microorganism that is not commonly monitored in the environment but has the potential to enter the environment and cause known or suspected adverse ecological and/or human health effects;</p>
	<p>“<i>Competent Authority</i>” means anybody or authority designated or otherwise recognized as such for any purpose in connection with these Regulations;</p>
	<p>“<i>Disposal</i>” means deposit, treatment and/or recovery of any toxic and hazardous industrial chemicals or materials including their packaging or containers in an environmentally sound manner;</p>
	<p>“<i>Distribute</i>” means to offer toxic and hazardous industrial chemicals or Materials for sale, sell, transport, expose, display, advertise for sale or supply;</p>
	<p>“<i>Dual-use-chemicals or materials</i>” refer to chemicals or materials that can be used for both civilian and military applications;</p>
	<p>“<i>Eco-toxicity</i>” means ability of a chemical or material to cause ill health, injury or death to any living organism;</p>
	<p>“<i>Environment</i>” includes the physical factors of the surroundings of human beings, including land, water, atmosphere, climate, sound, odour, taste, the biological factors of animals and plants and their social factor of aesthetics and includes both the natural and the built environment;</p>
	<p>“<i>Environmentally sound management</i>” means taking all steps to ensure that the toxic and hazardous industrial chemicals or materials and their wastes are managed in a manner, which will protect human health and the environment;</p>
	<p>“<i>Extractive industry</i>” means any processes that involve the extraction or removal of raw materials from the earth’s crust which includes oil and gas extraction, mining, dredging and quarrying;</p>
	<p>“<i>Export</i>” means sending out toxic and hazardous industrial chemicals or materials by a licensed person under these Regulations to a place outside</p>

	Kenya;
	“ <i>Exporter</i> ” means a person licenced under these Regulations to export toxic and hazardous industrial chemicals or materials to another country;
	“ <i>Facility</i> ” means any location where toxic and hazardous industrial chemicals or materials are manufactured, collected, received, treated, stored or disposed;
	“ <i>GHS</i> ” or “ <i>Globally Harmonized System</i> ” includes harmonized criteria for classifying substances and mixtures according their health, environmental and physical hazards; and harmonized hazard communication essentials, including requirements for labeling and safety data sheets;
	“ <i>Hazardous Chemical</i> ” or “ <i>HAZCHEM</i> ” means any chemical which can cause a physical or health hazard;
	“ <i>Hazardous Materials</i> ” or “ <i>HAZMAT</i> ” means articles or substances or mixtures that are capable of posing a hazard to health, safety, property or the environment. This includes goods or materials that awaiting decontamination, relocation or reuse. They are also known as Dangerous Goods;
	“ <i>HS No</i> ” means a harmonized system which is an international nomenclature for classification of products using a six-digit code system;
	“ <i>Import</i> ” means bringing into Kenya toxic and hazardous industrial chemicals or materials by a person authorized by the Authority;
	“ <i>Importer</i> ” means a person who is authorized by the Authority to bring into Kenya toxic and hazardous industrial chemicals or materials;
	“ <i>Incident</i> ” means an undesired, unplanned and uncontrolled occurrence or event which is within NEMA’s mandate, statutory duty or policy role, which causes or may result in significant environmental damage;
	“ <i>Industrial chemical</i> ” means any chemical or product used or intended for use in industrial process;
	“ <i>Intermediate chemical</i> ” means a substance formed during a chemical process before the desired product is obtained;
	“ <i>Label</i> ” means a written, printed, graphic matter, on, or attached to the chemical or immediate container thereof and outside container or wrapper of the package;
	“ <i>Lead Agency</i> ” means any government ministry, department, parastatal, state corporation or local authority, in which any law vests functions of control or management of any element of the environment or natural resource;
	“ <i>LC<sub>50</sub></i> ” or “( <i>Lethal Concentration 50</i> )” means the concentration in air or in a

	solution which causes 50 percent mortality of the test-animal in a specified period through exposure;
	“ <i>LD<sub>50</sub></i> ” or “ <i>Lethal Dose<sub>50</sub></i> ” means an amount of a substance that, when administered by a defined route of entry (for example oral or dermal) over a specified period of time, it is expected to cause the death of 50 percent of a defined animal population;
	“ <i>MLC<sub>50</sub></i> ”, “ <i>ML<sub>50</sub></i> ” or “ <i>Median Lethal Concentration</i> ” also means <i>LC<sub>50</sub></i> ;
	“ <i>Materials</i> ” means a chemical substance or mixture of substances that constitute an object which can be pure or impure, a singular composite or a complex mix, living or non-living matter, natural or man-made;
	“ <i>Material Safety Data Sheet (MSDS)</i> ” means a record containing data regarding the properties of a particular chemical or material including physical and bio-chemical information and safety measures for handling, usage and disposal. MSDS also refers to “ <i>Safety Data Sheets (SDS)</i> ” or “ <i>Product Safety Data Sheets (PSDS)</i> ”;
	“ <i>Manufacture</i> ” includes production, formulation, production process, re-packaging and preparation of toxic and hazardous industrial chemicals or materials for distribution or use;
	“ <i>Multilateral Environment Agreements</i> ” or “ <i>MEAs</i> ” is considered to be a legally binding agreement between several States related to environment. These regulations apply to chemicals-related MEAs specifically but not limited to the Stockholm, Rotterdam and Minamata Conventions;
	“ <i>Mercury</i> ” means elemental mercury (Hg(O), CAS No. 7439-97-6);
	“ <i>Mercury compound</i> ” means any substance consisting of atoms of mercury and one or more atoms of other chemical elements that can be separated into different components only by chemical reactions;
	“ <i>Mercury-added product</i> ” means a product or product component that contains mercury or a mercury compound that was intentionally added;
	“ <i>Mixture</i> ” means a combination of two or more pure substances in which each pure substance retains its individual chemical properties;
	“ <i>Mutagenic</i> ” means chemicals or materials capable of causing genetic changes within living cells;
	“ <i>National focal point</i> ” means a national entity or authority designated by a State Party and charged with facilitating the State Party’s compliance with international agreements at the national level;

	<p>“<i>Obsolete chemicals or materials</i>” mean chemicals or materials that are no longer in use;</p>
	<p>“<i>Operator</i>” means a person or agent licensed under these Regulations or any other person acting on behalf of the licensee to own or operate a facility for manufacturing, collection, transportation, reception, treatment, storage or disposal of toxic and hazardous industrial chemicals or materials;</p>
	<p>“<i>Persistence</i>” means the ability of a chemical or material to remain in the environment for a long time without transformation or breakdown into another chemical form;</p>
	<p>“<i>Port of entry or exit</i>” has the meaning assigned to it in the Customs and Excise Act;</p>
	<p>“<i>Prior Informed Consent</i>” refers to procedure where certain chemicals listed under Rotterdam Convention, or restricted in the country of import, can only be exported if the Country of import consents in writing after notification;</p>
	<p>“<i>Process</i>” means a method or means of changing one or more chemicals or chemical compound. It can occur by itself or caused by an outside force and involves a chemical reaction;</p>
	<p>“<i>Product</i>” means a primary substance that is formed, including the intermediate and secondary substances, as a result of a chemical reaction, an industrial or manufacturing process;</p>
	<p>“<i>Registrant</i>” means a person in whose name a toxic or hazardous chemical or material is registered;</p>
	<p>“<i>Restricted chemical</i>” means a chemical virtually all use of which within one or more categories has been prohibited by final regulatory action in order to protect human health or the environment, but for which certain specific uses remain allowed;</p>
	<p>“<i>Sample</i>” means a portion of material selected from a larger quantity of material;</p>
	<p>“<i>Substance</i>” means a chemical element and its compound in the natural state or obtained by any manufacturing process, including any additive to ensure its stability and any impurity derived from the process used excluding solvents separated without affecting its stability or composition;</p>
	<p>“<i>Sound Management of Chemicals</i>” means the application of managerial best practices to chemicals throughout their life cycle to prevent, reduce or minimize the potential for exposure of people and the environment to toxic and hazardous chemicals;</p>

	<p>“<i>Teratogenic</i>” means a chemical or material capable of affecting the normal growth of an embryo or foetus;</p>
	<p>“<i>Toxic Chemical or Material</i>” means any substance which on entry into an organism through ingestion, inhalation /or dermal contact is injurious, causes physiological or biological disturbances or otherwise causes deterioration of the functions of the organism in any way;</p>
	<p>“<i>Transporter</i>” means a person licensed by the Authority to engage in the off-site transportation of toxic and hazardous industrial chemicals or materials by air, rail, road or water;</p>
	<p>“<i>User</i>” means a person or legal entity in Kenya supplied with a substance or mixture of chemicals and materials by a register Kenyan Supplier for use in industrial or professional activities such as blending them into new formulations for sale, producing articles, in production process and service but does not involve purchase and consumption of a product outside an industrial setting;</p>
Objective	<p>3. (1) To ensure protection of human health and environment from adverse effects of toxic and hazardous industrial chemicals and materials.</p> <p>(2) To reduce risks posed by chemicals and to provide for sound management of chemicals.</p> <p>(3) To domesticate relevant provisions of international treaties, agreements and conventions.</p>
Scope	<p>4. These regulations shall apply to production, manufacture, exportation, importation, transportation, distribution, storage, handling and disposal of toxic and hazardous industrial chemicals and materials.</p>
Application	<p>5. (1) These regulations shall apply to toxic and hazardous industrial chemicals and materials as classified in the First Schedule to these Regulations.</p> <p>(2) The toxic and hazardous industrial chemicals and materials referred in sub-regulation (1) shall include:</p> <p>a) any chemical whose LD<sub>50</sub>, LC<sub>50</sub>, and MLC<sub>50</sub> falls within the moderate, high or extreme classes or category listed in the First Schedule.</p> <p>b) any chemical or material that falls under either group or category 1, 1A, 1B, 2, 2A or 2B of Part IV of the First Schedule.</p> <p>c) any mixture containing chemical and/or materials in classes, categories or groups mentioned in sub-section 2 (a) and 2(b).</p> <p>(3) The provisions of these regulations shall be in addition to other</p>

	requirements imposed by the Act or any other written law.
	<b>PART II: Classification and Registration</b>
Classification	6. The Authority shall in consultation with the relevant lead agencies classify toxic and hazardous industrial chemicals and materials and/ or their mixtures in accordance with the criteria set out in the First Schedule.
Register	7.(1) The Authority shall establish and maintain a register of toxic and hazardous industrial chemicals and materials identified meeting the criteria referred in sub regulation 5 (2) and in the format set out in the Second Schedule. (2) The register shall be a public document that can be inspected during the normal working hours.
Registration	8. No person or firm shall manufacture, import or export toxic and hazardous industrial chemicals and/ or materials as specified under 5 (2) unless the chemical and / or material is registered under the Second Schedule.
Application for registration	9. Any person intending to import, export, manufacture, distribute or supply toxic and hazardous industrial chemical and /or material referred to in regulation 8 above shall apply for its registration with the Authority.
Application details	10. (1) Any person intending to register toxic or hazardous industrial chemical or material shall make an application to the Authority as set out in the Third Schedule accompanied by Material Safety Data Sheet, Risk Management Plan and Hazard Chemical and/or Material Emergency Response Plan. (2) The Material Safety Data Sheet specified in (1) shall consist of items listed under the Fourth schedule. (3) The Risk Management Plan and Hazard Chemical and/or Material Emergency Response Plan specified in (1) shall consist of items listed under Fifth Schedule.
Evaluation of application	11. The Authority shall evaluate the application and communicate its decision to the applicant within thirty (30) days after application.
Additional information	12. Where the Authority is of the opinion that the data supplied in support of registration of a toxic or hazardous chemical is insufficient, it may require the applicant to provide: (1) An assay of the chemical or material; (2) A sample of the chemical or material; (3) A sample of the technical or analytical grade of its active ingredient; (4) Any other relevant information as may be required by the Authority.



Laboratory analysis	13. The Authority may carry out the analysis of the chemical or material sample from any environmental media or submit it to a designated laboratory.
Laboratory Designation	14. (1) For a laboratory to be designated by the Authority, the laboratory shall apply through an application form as set out in the Sixth Schedule accompanied with the prescribed fee set out in the Fifteenth Schedule.  (2) The Authority upon evaluating the application, shall carry out site verification of the application, and upon approval and designation, shall submit it for gazette in the Kenya Gazette.  (3) A designated laboratory shall apply for an operating licence in the prescribed form set out in the Sixth Schedule which shall be renewed annually.  (4) The Authority shall issue an operating licence to in the prescribed form set under in the Sixth Schedule to these Regulations.
Non-resident applicant	15. An applicant who is not resident in Kenya shall appoint an agent permanently resident in Kenya to whom any notice or correspondence may be sent.
Non-registration	16. The Authority may decline to register a chemical or material if;  (1) The application for the registration of the chemical or materials does not comply with the provisions of the Act and these Regulations;  (2). The information provided by applicant is;  (a) insufficient to enable the chemical or material to be assessed and evaluated;  (b) false, misleading or deceptive or is likely to create an erroneous impression regarding the character of the chemical or material;  (3). The use of the chemicals or materials would lead to an unacceptable risk or harm;  (a) in relation to the use in which is intended; or  (b) to public welfare including health, plants, animals or the environment
Deregistration	17. The Authority may deregister a chemical or material due to one or more of the following reasons:  (1) if it has been banned  (2) if it is revealed that information stated in the application form was incorrect, or misleading;  (3) if new information has become available which renders the chemical or materials substance unsafe or dangerous.

Register review	18. The Authority may from time to time review and update the list of phased-out, restricted or banned chemicals or materials as set out in the Sixth Schedule.
<b>PART III: Labeling and Packaging.</b>	
Appropriate label	<p>19 (1) No person shall store, distribute, or sell any toxic and hazardous industrial chemicals or materials without an appropriate label attached to the package or container.</p> <p>(2) The label shall contain the following information:</p> <ol style="list-style-type: none"> <li>a. The name of the chemical or material, which shall be descriptive of the physical form and its distinctive brand or trade mark;</li> <li>b. Information detailing the nature and degree of hazard inherent in the chemicals or materials identified by the appropriate precautionary symbol and signal words as set out under Seventh Schedule;</li> <li>c. A statement directing the user to read the label before use;</li> <li>d. A guarantee statement of the concentration of the chemical or material;</li> <li>e. The registration number of the chemical or material in the register;</li> <li>f. A statement of the net contents of the package for the chemical or material, which shall be in accordance with all the units of measure as described under the Weights and Measures Act;</li> <li>g. Information giving date of manufacture, shelf life and storage conditions;</li> <li>h. Information identifying any significant hazards in respect to the handling, storage, display, distribution and disposal of the chemical or material and the empty package or container;</li> <li>i. Information identifying any significant hazards to public health, plants, animals or the environment;</li> <li>j. Instructions on first aid, which shall set out; <ol style="list-style-type: none"> <li>i. the practical measures to be taken in the event of poisoning or other injury caused by the chemical or material and shall;</li> <li>ii. describe the symptoms of poisoning or allergic reactions;</li> <li>iii. state antidote and remedial measures</li> </ol> </li> <li>k. Comply with the requirements of the National and Globally Harmonized System for labeling and classification of chemicals or materials, KS 2605 and KS 2606 applicable at the time; and</li> <li>l. Any other information that may be required by the Authority.</li> </ol> <p>(3) Packaging for the transport of toxic and hazardous industrial chemicals or</p>

	materials on road and rail transport shall adhere to the requirements of KS 2530:2014.
Label print	<p>20. (1) The information on every label shall be printed in English and / or Kiswahili.</p> <p>(2) All information shown on the label shall be printed in a manner that is conspicuous, legible, durable and indelible</p> <p>(3) Where the physical properties of a chemical or material are such that the presence of the chemicals or materials may not be recognized when it is used, and is likely to expose a person or animal to severe health risk or cause harm to the environment, the chemicals or materials shall be identified by means of colour, odour, or such other means as the Authority may approve to provide signal or warning of its presence.</p>
	21. No person shall store, distribute, transport or handle toxic and hazardous chemicals or materials in a manner that is not consistent with directions or limitations shown in the label.
	<b>PART IV: Advertising</b>
Advertising	22. Any person who advertises any toxic and hazardous industrial chemicals or materials shall ensure that the advertisement contains information warning that the toxic or hazardous industrial chemicals or materials may be harmful to human health and the environment.
Advertisement limitation	23. No person shall use words, packages or labels stating, implying or inferring that a chemical or material is approved, accepted or recommended by the government or by any department or agency thereof in any advertisement in respect to a chemical or material.
	<b>PART V: Manufacture, Imports and Exports</b>
Licence requirement	<p>24. (1) No person shall manufacture, import and / or export toxic and hazardous industrial chemicals or material unless the person has a licence issued by the Authority.</p> <p>(2) Any person intending to manufacture, import and / or export toxic or hazardous industrial chemicals or materials shall apply to the Authority for the licence in the prescribed form, under the Eighth Schedule accompanied by the prescribed fee set out in Fifteenth Schedule.</p> <p>(3) The Authority may issue a licence to manufacture, import and /or export toxic or hazardous industrial chemicals or materials in the prescribed form set under in the Eight Schedule to these Regulations.</p> <p>(4) In the event that the Authority declines to issue a licence to an applicant</p>

	<p>the Authority shall give a written communication to the applicant within 30 days giving the reason/s for the decline.</p> <p>(5) Where there is change of name or ownership of a licensed activity mentioned in (1) and (2), the person to whom the change or ownership is being transferred, and the person transferring it shall jointly notify the Authority in writing in respect of the facility to which such licence was issued in the prescribed form set out in the Eighth Schedule to these regulations.</p> <p>(6) The transferee as well as the transferor of a licence issued under this regulation shall be liable for the adherence to all obligations imposed by the transfer in respect of the licence transferred in (5), the operating facility and any other matter associated with the facility, but the transferor shall not be responsible for any future liabilities or any obligations imposed with respect to the licence from the date of approval of the transfer.</p> <p>(7) The Authority may issue a Certificate of Transfer of Licence to manufacture, import, export, store and / or distribute toxic or hazardous industrial chemicals or materials in the prescribed form set under in the Eight Schedule to these Regulations.</p> <p>(8) Any person, owner or operator of a licensed activity in (1) and (2) shall inform the Authority in writing of any change or variation of the activity or affecting any other detail in the activity to which the licence was issued.</p>
<p>Permit requirement</p>	<p>25. (1) No person shall import and / or export toxic and hazardous industrial chemicals, materials or samples thereof unless the person has a permit issued by the Authority.</p> <p>(2) Any person intending to export and /or import toxic and hazardous industrial chemicals or materials or both shall apply to the Authority for the permit in the prescribed form, under the Eighth Schedule accompanied by the prescribed fee.</p> <p>(3) An application for permit to transit toxic and hazardous industrial chemicals or materials or both through Kenya shall be made to the Authority in the prescribed form set out in the Eighth Schedule to these regulations and shall be accompanied with:</p> <p>(a) a copy of the Prior Informed Consent issued by the competent Authority of the importing country; and</p> <p>(b) the prescribed deposit bond which shall be refundable.</p>
<p>Permit or licence issuance</p>	<p>26. The Authority shall process dully filled application for permit and / or licence within 21 working days.</p>

<p>Prior Informed Consent</p>	<p>27. (1) The Authority shall accept or decline to issue an export permit of the toxic and hazardous industrial chemicals or materials where consent has been given or denied by the importing country under the Prior Informed Consent Procedure.</p> <p>(2) The Authority shall accept or decline to issue an import permit of the toxic and hazardous industrial chemicals or materials where consent has been given or denied by the exporting country under the Prior Informed Consent Procedure.</p>
<p>Cancellation or suspension</p>	<p>28. The Authority may cancel or suspend any permit or licence issued under these Regulations if;</p> <ul style="list-style-type: none"> <li>(a) the conditions of the permit or licence, and any other provisions of the Act and Regulations thereunder are contravened.</li> <li>(b) the permit or licence was granted on the basis of false or misleading information.</li> <li>(c) There is new information which affects the safety of the chemical or material.</li> </ul>
<p>Register of licences and permits</p>	<p>29. (1) The Authority shall maintain a register of all the licences and permits issued under these regulations set out in the Ninth Schedule.</p> <p>(2) The register shall be a public document and may be inspected during working hours</p>
<p>Material Safety Data Sheet</p>	<p>30. (1) No person shall store, distribute, transport toxic and hazardous chemicals or materials unless accompanied by the Material Safety Data Sheet.</p>
<p>Environment Impact Assessment, Environment Audit and Chemical Safety Audits</p>	<p>31. (1) No person shall manufacture and / or store toxic and hazardous chemicals and materials without an Environmental Impact Assessment licence as per the Environmental Impact Assessment /Environmental Audits Regulations.</p> <p>(2) Every person manufacturing and / or operating a storage facility of toxic or hazardous chemicals and materials shall undertake annual Environmental Audit and submit to the Authority</p> <p>(3) Any person manufacturing toxic or hazardous chemicals and materials shall undertake workplace monitoring to ensure the safety and health of persons in accordance with Occupational Safety and Health Act 2007.</p>
<p>Substances in Articles / Chemicals in Products / Mercury-added</p>	<p>32. (1) Any person who manufactures, imports, exports or distributes articles, materials and / or products containing toxic and hazardous chemicals and materials or substances shall;</p> <ul style="list-style-type: none"> <li>a) ensure they do not contain banned toxic and hazardous chemical and</li> </ul>

<p>products</p>	<p>materials listed in the Sixth schedule.</p> <p>b) ensure the concentrations of restricted and / or toxic and hazardous chemicals and materials do not exceed maximum concentrations in articles, materials and / or products conform with the relevant Kenyan Standards.</p> <p>c) provide sufficient information which shall include the CAS No., HS No. of the chemical and material and MSDS to allow for safe handling, use and disposal by the recipient or user.</p> <p>(2) The Authority shall in consultation with the relevant lead agencies determine and / or recommend the maximum concentration limits of toxic and hazardous chemical and material in articles, materials or products.</p> <p>(3) The Authority in consultation with the relevant lead agencies shall ensure toxic and hazardous industrial chemicals and or materials in articles, materials or products:</p> <p>a) do not exceed limits set out in the relevant national regulations and standards .</p> <p>b) are reduced and where feasible eliminated.</p> <p>c) are not recycled and must be considered in the material used in recycling articles, materials or products.</p> <p>d) are produced using toxic and hazardous free alternatives.</p> <p>(4) No person shall manufacture, import or export mercury-added products after the phase-out dates for these products as set out in the Sixth Schedule to these regulations, except where an exemption is registered and granted by the Authority.</p> <p>(5) Any person manufacturing or importing paint, varnishes, coating and related products shall ensure the maximum permissible content of total lead does not exceed the maximum concentration set out in KS 2661-1&amp;2:2017</p>
<p>Extractive industry</p>	<p>33. (1) The Authority and the relevant lead agencies shall ensure the use, emissions, releases and discharges of toxic and hazardous chemicals and material into the environment are minimized and eliminated in the oil and gas, geothermal, mining, dredging and other extractive processes.</p> <p>(2) Any person intending to construct or operate a facility, process plant or technology that utilizes toxic and hazardous chemicals and materials for extractive activities shall undertake an Environment Impact Assessment in accordance with the Act and its regulations.</p> <p>(3) The owner or operator of an oil and gas, geothermal, mining, dredging, or any other extractive facility, process plant or technology shall apply for a permit to use toxic and hazardous chemicals and materials from the Authority in the prescribed form set out in the Eighth Schedule at a prescribed fee in the</p>

	<p>fifteenth Schedule.</p> <p>(4) The Authority shall evaluate the application and communicate its decision to the applicant within thirty (30) days after application.</p> <p>(5) The Authority may issue a permit to use toxic and hazardous chemical and material for oil and gas, geothermal, mining, dredging, or any other extractive processes in the prescribed form set out in the Eighth Schedule.</p> <p>(6) In the event the Authority declines to issue a permit to an applicant, the Authority shall give a written communication to the applicant within thirty (30) days giving the reason/s for the decline.</p> <p>(7) The Authority and the relevant lead agencies shall develop guidelines for use of toxic and hazardous chemicals and materials management for the extractive sector.</p> <p>(6) The owner or operator of an extractive facility or process shall ensure the use of mercury or mercury compounds and any other toxic and hazardous industrial chemicals and materials listed in the Sixth Schedule are reduced and where feasible eliminated</p>
	<p><b>PART VI. Distribution, Storage, Transportation and Handling</b></p>
<p>Distribution</p>	<p>34. (1) No person who sources / purchases, stores and then places on market toxic and hazardous industrial chemicals or material for another entity or under one's own brand without changing its chemical composition in any way, shall distribute it unless the person has a licence issued by the Authority.</p> <p>(2) The person shall apply for a licence to distribute toxic and hazardous industrial chemicals or materials using the prescribed form set out in the Eighth Schedule to these regulations.</p> <p>(3) The Authority may issue a licence to distribute toxic and hazardous industrial chemicals or materials in the prescribed form set out in the Eighth Schedule to these Regulations.</p> <p>(4) The licensed distributor shall be responsible for chemical safety in the supply chain to protect human health and the environment from chemical risks by ensuring;</p> <ul style="list-style-type: none"> <li>(a) chemicals and / or materials meant for distribution are registered;</li> <li>(b) provision of information about the use and hazardous properties of chemicals or materials to employers / handlers/ customers through hazard communication program, labels, material safety data sheets and / or any other forms of warning;</li> <li>(c) containers are properly labeled;</li> <li>(d) persons who repackage and redistribute already imported hazardous</li> </ul>

	<p>chemicals and materials are professionals with the relevant knowledge on such operations;</p> <p>(e) provision of information on emergency response plan;</p> <p>(f) safe transportation of chemicals or materials by trained drivers and properly maintained transport equipment;</p> <p>(g) products are stored and handled in accordance with relevant regulations and industry standards;</p> <p>(h) contracted storage facilities and transportation equipment meet requirements of the relevant regulations and industry standards;</p> <p>(i) waste generated during business operations are contained and disposed responsibly in accordance with the relevant regulations;</p> <p>(j) maintain relevant documents and records for safe distribution; and</p> <p>(k) any other relevant information as may be required by the Authority.</p>
Storage	<p>35. (1) No person shall store toxic and hazardous chemicals and materials unless the storage facility is licensed by the Authority.</p> <p>(2) The owner or operator of a toxic and hazardous chemicals and materials storage shall apply for a licence using the prescribed form under the Eighth Schedule.</p> <p>(3) The Authority may issue a licence to store toxic and hazardous chemicals and materials in the prescribed form set out in the Eighth Schedule to these Regulations.</p> <p>(4) The owner or operator of toxic and hazardous chemicals and materials storage facility shall comply with the basic storage requirement set out in the Tenth Schedule, the Factories and Other Places of Work (Hazardous Substances) Rules of 2007, KS 2383-1 applicable at the time, and any other relevant Kenyan Law on the storage of hazardous materials.</p> <p>(5) The Authority in consultation with the relevant lead agencies shall develop guidelines on the environmentally sound storage of toxic or hazardous industrial chemical or material.</p>
Transportation	<p>36. (1) No person shall transport toxic and hazardous chemicals and material unless they apply and obtain a licence from the Authority in the form prescribed in the Eighth schedule to these Regulations.</p> <p>(2) The Authority may issue a licence to transport toxic and hazardous chemicals and materials in the prescribed form set out in the Eight Schedule to these Regulations.</p> <p>(3) The vehicles used to transport toxic and hazardous chemicals and material shall meet the requirements set in KS 2384 applicable at the time by road and</p>



	KS 2708 applicable at the time by rail.
Transportation safety	<p>37. Any person transporting toxic or hazardous industrial chemicals or materials shall ensure that:</p> <ol style="list-style-type: none"> <li>(1) there is safety in carriages by providing pallets, dunnage, appropriate personal protective equipment;</li> <li>(2) the substances are kept in separate compartments from other luggage;</li> <li>(3) the transporting vessel has first aid facilities;</li> <li>(4) a dully filled Transport Emergency Card as per Eleventh Schedule and KS 2382-4 applicable at the time is displayed on the vehicle;</li> <li>(5) the transporting vessel has appropriate material to contain any spillage, appropriate means of extinguishing fire and danger warning signs on the truck as set out in the Seventh Schedule and KS 2324 applicable at the time;</li> <li>(6) the driver or any other person authorized in the vehicle has appropriate knowledge and training on transport and safe handling of chemicals or materials from an approved training provider;</li> <li>(7) the driver or any person authorized to handle chemicals in transit shall ensure they use personal protective equipment;</li> <li>(8) chemicals or materials are not exposed to adverse weather conditions;</li> <li>(9) the transporting vessel when not in motion during transit is parked in designated parking yard along the road highways, rail access and container storage areas, and in the port on sea or water ways;</li> <li>(10) contracted or sub-contracted transporting companies shall comply with the licensing conditions and provisions in these regulations, and;</li> <li>(11) they comply with the requirements set in KS 2382-2 applicable at the time for emergency information system for rail transport and other relevant regulations and standards on the transportation of hazardous material / dangerous goods.</li> </ol>
Air transport	<p>38. Transportation of toxic and hazardous chemicals or materials by air shall be done in accordance with the relevant provisions of the Kenyan laws and International Civil Aviation Organisation Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p>
Sea and inland water transport	<p>39. Transportation of toxic and hazardous chemicals and materials by sea and inland navigable water shall be done in accordance with the Merchant Shipping Act of Kenya.</p>

<p>Handling</p>	<p>40 (1) A manufacturer, importer, exporter, a storage facility, operator, user or any person handling toxic and hazardous industrial chemicals and / or materials shall institute safe handling procedures to prevent risks to human health and environment.</p> <p>(2) Subject to subsection (1), safe handling procedures shall include the following requirements:</p> <ul style="list-style-type: none"> <li>(a) an inventory of chemicals or materials being used or stored are kept well and the risks associated with them documented;</li> <li>(b) use appropriate personal protective equipment;</li> <li>(c) ensure handlers have sufficient knowledge and hazards of the industrial chemical or material from labels and material safety data sheets;</li> <li>(d) ensure that the workplace has a Chemical Spill Kit, that is appropriate for the type of chemicals;</li> <li>(e) surplus chemicals and / or materials and hazardous waste must be dealt with in accordance with the information in the safety data sheet;</li> <li>(f) a first aid equipment must always be available;</li> <li>(g) workplace must be cleaned regularly ensuring no chemical spills on floor;</li> <li>(h) a standard operating procedure for chemicals or materials requiring special handling, treatment or precaution is available or developed;</li> <li>(i) risk reduction measures that promote use or substitution to less hazardous chemicals or materials are applied;</li> <li>(j) conduct safety audits, and;</li> <li>(k) Any other relevant requirement as may be determined by the Authority.</li> </ul>
<p>Incidents reporting and management</p>	<p>41. (1) In the event of a chemical or material incident, the owner, operator, handler or agent of the plant, storage facility, motor vehicle or vessel shall report the incident to the relevant emergency response authorities.</p> <p>(2) The owner, operator, handler, agent or any person of a process facility, plant, storage facility, motor vehicle or vessel or in possession of the toxic and hazardous chemical and material at the time of an incident, shall:</p> <ul style="list-style-type: none"> <li>a. institute all reasonable measures including but not limited to decontamination, immediate clean-up, restoration and remediation of the contaminated site to the recommended national environmental clean-up standards, and;</li> <li>b. in addition, undertake any other actions as directed by the Authority</li> </ul>

	<p>including the costs to mitigate the impact arising there-of as provided for in the Act and any other applicable Kenyan law.</p> <p>(3) Notwithstanding provision (2), the Authority in collaboration with the relevant lead agencies shall take appropriate measures to ensure the owner, operator, handler, agent or any other person responsible for the chemical or material incidents shall respond, manage and mitigate the chemical or material incident to protect human health and environment.</p> <p>(4) The incident responder shall ensure that adequate safety precautions, use of appropriate personal protective equipment and reliance on the relevant emergency response guidelines / procedures are used during response and incident mitigation.</p> <p>(5) The polluter pays principle shall apply.</p>
Liability	<p>42. (1) The owner or operator of a facility that discharges toxic and hazardous chemical and materials or their products or mixtures into the environment during manufacture, transport, storage, distribution or handling or any other activity commits an offense and upon conviction shall be liable to the penalty prescribed under Section 93 and 141 and any other provisions of the Act.</p> <p>(2) The owner or operator of a facility in sub-section (1) shall provide a guarantee or pay deposit bond to the Authority to ensure good environmental practices and compliance with remediation obligations as prescribed in Section 28 of the Act.</p> <p>(3) Any person shall be liable for damage caused or contributed by his lack of compliance with the provisions of the regulation or by his wrongful, intentional, reckless or negligent acts or omissions.</p>
	<b>PART VII: Disposal of chemical and material wastes.</b>
Waste disposal	<p>43. (1) Any person in possession of obsolete, expired, surplus or any other toxic and hazardous industrial chemical or material declared by any law to be disposed shall notify the Authority on the type, quantity, physical and chemical status and any other information that may be required by the Authority.</p> <p>(2) Any person intending to transport or dispose any toxic and hazardous chemical or material waste under sub regulation (1) shall do so in accordance with the Act, the Environmental Management and Coordination (Waste Management) Regulations 2006 and any other relevant national law.</p> <p>(3) Notwithstanding the provision in sub-regulation (2) above, the Authority in collaboration with the relevant lead agencies shall develop guidelines under this regulation that will provide for management and disposal of waste from</p>

	<p>but not limited:</p> <ul style="list-style-type: none"> <li>a. toxic and hazardous chemicals and materials,</li> <li>b. materials contaminated directly or indirectly by toxic and hazardous chemicals,</li> <li>c. chemicals in products,</li> <li>d. decommissioned or obsolete equipment and production facilities.</li> </ul> <p>(4) No person shall re-use or recycle materials and containers used to package toxic and hazardous chemicals and materials to package food, beverage and drinks meant for human consumption, household use or any other domestic purpose.</p> <p>(5) Materials and containers referred in regulation (4) above to package toxic and hazardous chemicals and materials shall be disposed in accordance to the Environmental Management and Coordination (Waste Management) Regulations 2006 and any other relevant law in Kenya.</p> <p>(6) Manufacturers, importer, exporters, distributors and end-users shall implement take-back scheme and other waste management strategies including extended producer responsibility to manage and dispose wastes from toxic and hazardous chemicals and materials.</p>
<p>Monitoring and assessment of impacts</p>	<p>44. (1) The Authority in consultation with the relevant Lead Agencies shall monitor and assess the hazards, exposure, risks and impacts of toxic and hazardous chemicals and materials to human health and the environment throughout their life cycle.</p> <p>(2) Subject to the provision (1) above, the Authority and relevant lead agencies shall;</p> <ul style="list-style-type: none"> <li>a. promote research, capacity building and develop strategies for sound management of toxic and hazardous chemicals and materials</li> <li>b. encourage information sharing on technical and economically available toxic and hazardous free products and processes, best available technologies and best environmental practices</li> <li>c. monitor emissions and releases of toxic and hazardous industrial chemicals and materials</li> <li>d. reduce and / or eliminate the impacts of toxic and hazardous chemicals and materials to human health and environment.</li> <li>e. monitor contaminants of emerging concern in environmental and biological media to determine their toxicity and hazards, and risks to human health and environment.</li> </ul> <p>(3) No person, facility, plant or chemical process shall discharge, emit or release into the environment toxic and hazardous chemicals and materials in excess of recommended standards for any environmental media.</p> <p>(4) The owner, operator or a licensed agent to manufacture, distribute, store, transport, handle, import, export or an extractive activity shall undertake a</p>

	<p>hazard and risk assessment of toxic and hazardous chemicals and materials as guided by the relevant lead agency</p> <p>(5) The Authority shall in consultation with the relevant lead agencies develop guidelines for assessment, identification, characterization, remediation, monitoring and use of chemically contaminated sites.</p>
Dual-Use Chemicals and Intermediate Chemicals	<p>45. The owner, agent or operator of a plant, chemical process or production facility shall in accordance with the relevant provisions of this regulation and any other relevant law monitor, and undertake a hazard and risk assessment of the toxic and hazardous dual-use chemicals and materials, and toxic and hazardous intermediate chemicals and materials.</p>
Pollutant Release and Transfer Register	<p>46. (1) The Authority shall establish and maintain a Pollutant Release and Transfer Register for all facilities handling toxic and hazardous industrial chemical and materials.</p> <p>(2) The pollutant release and transfer register shall comprise:</p> <ul style="list-style-type: none"> <li>(a) Facility and its geographical location;</li> <li>(b) Activity;</li> <li>(c) Owner or operator, and, as appropriate, company;</li> <li>(d) Pollutant or waste, as appropriate;</li> <li>(e) Each of the environmental media into which the pollutant is released; and,</li> <li>(f) The destination of the transfer and, where appropriate, the disposal or recovery operation for waste.</li> </ul> <p>(3) A manufacturer of any chemical or material shall provide all data referred to under the pollutant release and transfer register form set out under Twelfth Schedule within 3 months after the end of reporting year.</p> <p>(4) The data referred to in subsection (2) above shall be submitted to the Authority in electronic form.</p> <p>(5) The pollutant release and transfer register shall be available to the public on the Authority's website.</p> <p>(6) The owner or operator of a facility that releases or discharges toxic and hazardous industrial chemicals and materials into the environment above the recommended limits applicable to water, air, soil, sediment or applicable environmental matrix shall report to the Authority within 6 hours.</p>
Restriction and banning	<p>47 (1) The Authority shall advise the Cabinet Secretary to restrict or ban a chemical or material based on the criteria set out in the Thirteenth Schedule.</p>

	<p>(2) The Cabinet Secretary shall declare by gazette notice that the chemical or the material has been restricted or banned and listed in the Sixth Schedule.</p>
	<p>48. No person shall manufacture, export, import, distribute, store or handle any banned chemical or material listed in the Sixth Schedule</p>
	<p>49. No person shall manufacture, export, import, distribute, store or use restricted chemical or material registered under the Sixth schedule without a valid licence from the Authority.</p>
	<p><b>PART VIII: Records and reports</b></p>
Records	<p>50. (1) The exporter, importer, manufacturer or supplier shall keep a record of all toxic and hazardous industrial chemicals or materials handled indicating the quantities received or manufactured, balances in stock, and information described under the First Schedule and shall be availed to the Authority on demand.</p> <p>(2) The record referred in (1) shall indicate the recipient, quantity, date and place of use.</p> <p>(3) The recipient or the user shall keep a record / inventory of the toxic and hazardous industrial chemicals and materials acquired, purchased or supplied and disposed that comprises:</p> <ul style="list-style-type: none"> <li>(a) Chemical name</li> <li>(b) Product / Trade name</li> <li>(c) Material Safety Data Sheet</li> <li>(d) Manufacturer / Supplier name, registration and contact details.</li> <li>(e) Hazard Characteristics</li> <li>(f) Uses</li> <li>(g) Disposal (after usage)</li> <li>(h) Any other relevant requirement as may be determined by the Authority.</li> </ul>
Reports	<p>51. Any person handling a chemical or material registered under these regulations shall;</p> <ul style="list-style-type: none"> <li>(a) in case of an incident notify the Authority within six hours</li> <li>(b) submit to the Authority a report in the format set out under the Fourteenth Schedule within 7 days;</li> </ul>
Reporting	<p>52. (1) The national focal point to the relevant convention shall report to the Secretariat of the relevant conventions on the measures taken to implement the provisions of agreements or conventions on the management of toxic and</p>

	<p>hazardous chemicals and material in fulfillment of the national obligations.</p> <p>(2) The reporting format shall be in accordance with the requirements provided by the applicable convention with respect to the toxic and hazardous chemicals and materials.</p>
	<p><b>PART IX: Offences</b></p>
Offences and penalties	<p>53. (1) Any person who uses toxic and hazardous industrial chemicals or materials for the purposes other than those prescribed in a manner likely to cause adverse effects to human health and environment commits an offence</p> <p>(2) Any person who contravenes any provision of these regulations commits an offence and upon conviction shall be liable to the penalty prescribed in Section 93 and 141 and any other relevant section under the Act.</p>
	<p><b>PART X TRANSITIONAL CLAUSE</b></p>
Transitional clause	<p>54. (1) Any manufacturer, importer, exporter transporter, distributor, storage, handler or user of toxic and hazardous industrial chemicals or materials covered under these regulations shall within six months of the commencement of these regulations comply with the provisions of these regulations.</p> <p>(2) Any person who fails to comply with regulation 54 (1) shall be guilty of an offence and upon conviction shall be liable to the penalty prescribed under the Act.</p>

**CRITERIA FOR CLASSIFICATION OF INDUSTRIAL CHEMICALS  
AND MATERIALS**

**PART I: CLASSIFICATION BASED ON PHYSICAL HAZARDS**

Classification		Hazard statement	Hazard statement codes	General description
Hazard Class	Hazard category			
<i>Explosives</i>	Unstable explosive	Unstable explosives	H200	Capable by chemical reaction to produce gas at such a temperature and pressure, and at such speed that causes damage to the surrounding.
	Division 1.1	Explosive; mass explosion hazard	H201	
	Division 1.2	Explosive; severe projection hazard	H202	
	Division 1.3	Explosive; fire blast or projection hazard	H203	
	Division 1.4	Fire blast or projection hazard	H204	
	Division 1.5	May mass explode in fire	H205	
	Division 1.6	No hazard statement	None	
<i>Flammable gases</i>	1A	Flammable gas	Extremely flammable gas H220	Ability to ignite (catch fire) easily and the main hazards are fire or explosion.
		Pyrophoric gas	Extremely flammable gas May ignite spontaneously if exposed to air H220 H232	
	Chemically unstable gas	A	Extremely flammable gas May react explosively even in the absence of air H220 H230	
		B	Extremely flammable gas May react explosively even in the absence of air at elevated pressure and / or temperature H220 H231	
	1B	Flammable gas	H221	
	2	Flammable gas	H221	
	<i>Aerosols</i>	1	Extremely flammable gas Pressurized container: may burst if heated.	
2		Flammable gas Pressurized container: may burst if heated.	H223 H229	
3		Pressurized container: may burst if heated.	H229	
<i>Oxidising gases</i>	1	May cause or intensify fire; oxidizer	H270	Can cause or intensify a fire or cause a fire or explosion.



Classification		Hazard statement	Hazard statement codes	General description
Hazard Class	Hazard category			
<i>Gases under pressure</i>	Compressed gas	Contains gas under pressure; may explode if heated	H280	Due to the high pressure inside the cylinder or container, it may explode if heated. Refrigerated liquefied gases are very cold and can cause severe cold (cryogenic) burns or injury
	Liquefied gas	Contains gas under pressure; may explode if heated	H280	
	Refrigerated liquefied gas	Contains refrigerated gas; may cause cryogenic burns or injury	H281	
		Contains gas under pressure; may explode if heated	H280	
<i>Flammable Liquids</i>	1	Extremely flammable liquid and vapour	H224	Liquids with a flash point of not more than 93°C.
	2	Highly flammable liquid and vapour	H225	
	3	Flammable liquid and vapour	H226	
	4	Combustible liquid	H227	
<i>Flammable Solids</i>	1	Flammable solid	H228	Solids readily combustible or may cause or contribute to fire through friction.
	2	Flammable solid	H228	
<i>Self-reactive substances and mixtures</i>	Type A	Heating may cause an explosion	H240	May react on their own to cause a fire or explosion, or may cause a fire or explosion if heated even without oxygen (air).
	Type B	Heating may cause a fire or explosion	H241	
	Type C and D	Heating may cause a fire	H242	
	Type E and F	Heating may cause a fire	H242	
	Type G	No hazard statement	None	
<i>Pyrophoric liquids</i>	1	Catches fire spontaneously if exposed to air	H250	Liquids that can catch fire very quickly even in small quantities after coming into contact with air within 5 minutes.
<i>Pyrophoric solids</i>	1	Catches fire spontaneously if exposed to air	H250	Solids which even in small quantities is liable to ignite within 5 minutes after coming into contact with air.
<i>Self-heating substances and mixtures</i>	1	Self-heating; may catch fire	H251	May catch fire if exposed to air and without energy supply. They differ from pyrophoric liquids or solids that will ignite only after a longer period of time or when in large amounts.
	2	Self-heating in large quantities; may catch fire	H252	
<i>Substances and mixtures which, in contact with water, emit flammable gases</i>	1	In contact with water releases flammable gases which may ignite spontaneously	H260	Substances that react with water to release flammable gases. In some cases, the flammable gases may ignite very quickly (spontaneously).
	2	In contact with water releases flammable gases	H261	
	3	In contact with water releases flammable gases	H261	

Classification		Hazard statement	Hazard statement codes	General description
Hazard Class	Hazard Class			
<i>Oxidising liquids</i>	1	May cause fire or explosion; strong oxidiser	H271	Liquid which in itself may not be combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material.
	2	May intensify fire; oxidizer	H272	
	3	May intensify fire; oxidizer	H272	
<i>Oxidising solids</i>	1	May cause fire or explosion; strong oxidizer	H271	Solid which in itself may not be combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material.
	2	May intensify fire; oxidizer	H272	
	3	May intensify fire; oxidizer	H272	
<i>Organic peroxides</i>	Type A	Heating may cause an explosion	H240	May cause a fire or explosion if heated/may undergo exothermic self-accelerating decomposition:
	Type B	Heating may cause a fire or explosion	H241	
	Type C and D	Heating may cause a fire	H242	
	Type E and F	Heating may cause a fire	H242	
	Type G	No hazard statement	None	
<i>Corrosive to metals</i>	1	May be corrosive to metals.	H290	May be corrosive (chemically damage or destroy) to metals.
<i>Densitized explosives</i>	1	Fire, blast projection hazard; increased risk of explosion if desensitizing agent is reduced	H206	An explosive that has had an agent added to stabilize (or desensitize) it to suppress their explosive properties so that they do not mass explode and do not burn too rapidly and exempted from hazard class 'Explosives'.
	2	Fire or projection hazard; increased risk of explosion if desensitizing agent is reduced	H207	
	3	Fire or projection hazard; increased risk of explosion if desensitizing agent is reduced	H207	
	4	Fire hazard; increased risk of explosion if desensitizing agent is reduced	H208	
<i>Simple asphyxiants</i>	Gases that may displace oxygen in air and cause rapid suffocation			
<i>Physical hazards not otherwise classified</i>	It covers any physical hazards that are not covered in any other physical hazard class. The hazard statement on the label and MSDS will describe the nature of the hazard.			

**NB:** Hazard statements are assigned alphanumeric code consisting of one letter and three numbers: Hnxx where H stands for "hazard statement" where n=2 stands for physical hazards. xx is a sequential numbering of hazards arising from the intrinsic properties of the substance or mixture.

**PART II: CLASSIFICATION BASED ON HEALTH HAZARDS**

Classification		Hazard statement		Hazard statement codes	General description
Hazard Class	Hazard Category				
<i>Acute toxicity</i>	1	Oral	Fatal if swallowed	H300	Fatal, toxic or harmful if inhaled, skin contact, or if swallowed.  <i>(Refer to table below on ATE Values and Criteria)</i>
		Dermal	Fatal in contact with skin	H310	
		Inhalation	Fatal if inhaled	H330	
	2	Oral	Fatal if swallowed	H300	
		Dermal	Fatal in contact with skin	H310	
		Inhalation	Fatal if inhaled	H330	
	3	Oral	Toxic if swallowed	H301	
		Dermal	Toxic in contact with skin	H311	
		Inhalation	Toxic if inhaled	H331	
	4	Oral	Harmful if swallowed	H302	
		Dermal	Harmful in contact with skin	H312	
		Inhalation	Harmful if inhaled	H332	
	5	Oral	May be harmful if swallowed	H303	
		Dermal	May be harmful in contact with skin	H313	
		Inhalation	May be harmful if inhaled	H333	
<i>Skin corrosion / irritation</i>	1		Causes severe skin burns and eye damage	H314	Cause severe skin burns and skin irritation.
	2		Causes skin irritation	H315	
	3		Causes mild skin irritation	H316	
<i>Serious eye damage / irritation</i>	1		Causes serious eye damage	H318	Cause serious eye damage and eye irritation.
	2/2A		Causes serious eye irritation	H319	
	2B		Causes eye irritation	H320	
<i>Sensitization (Respiratory or Skin)</i>	Respiratory	1	May cause allergy or asthma symptoms or breathing difficulties if inhaled	H334	A respiratory sensitizer may cause allergy or asthma symptoms or breathing difficulties if inhaled. Skin sensitizer may cause an allergic skin reaction.
		1A	May cause allergy or asthma symptoms or breathing difficulties if inhaled	H334	
		1B	May cause allergy or asthma symptoms or breathing difficulties if inhaled	H334	
	Skin	1	May cause an allergic skin reaction	H317	
		1A	May cause an allergic skin reaction	H317	
		1B	May cause an allergic skin reaction	H317	

Classification		Hazard statement	Hazard statement codes	General description
Hazard Class	Hazard Class			
<i>Germ Cell Mutagenicity</i>	1 (both 1A and 1B)	May cause genetic defects	H340	Genetic defects - permanent changes (mutations) to body cells may pass to future generations. (Refer to table in the First Schedule Part IV a)
	2	Suspected of causing genetic defects	H341	
<i>Carcinogenicity</i>	1 (both 1A and 1B)	May cause cancer	H340	May cause or suspected of causing cancer. (Refer to table in the First Schedule Part IV b)
	2	Suspected of causing cancer	H341	
<i>Reproductive Toxicity</i>	1 (1A and 1B)	May damage fertility or the unborn child	H360	May damage or suspected to damage fertility or the unborn child (baby).  (Refer to table in the First Schedule Part IV c)
	2	Suspected of damage fertility or the unborn child	H361	
	Effects on or via lactation	May cause harm to breast-fed children	H362	
<i>Specific target organ toxicity (STOT) – single exposure</i>	1	Can cause damage to organs	H370	Can or may cause damage to organs (e.g., liver, kidneys, or blood) following a single exposure.
	2	May cause damage to organs	H371	
	3	May cause respiratory irritation or May cause drowsiness or dizziness	H335 or H336	
<i>Specific target organ toxicity (STOT) – repeated exposure</i>	1	Cause damage to organs	H372	Can cause or may cause damage to organs (e.g., liver, kidneys, or blood) following prolonged or repeated exposure.
	2	May cause damage to organs	H373	
<i>Aspiration hazard</i>	1	May be fatal if swallowed and enters airways	H304	May be fatal if they are swallowed and enter the airways.
	2	May be harmful if swallowed and enters airways	H305	
<i>Biohazardous infectious materials</i>	These substances or materials known or reasonably expected to contain pathogens which can cause disease in humans or animals. The pathogens include microorganisms, nucleic acids or proteins (prions) while the infectious substances include biological products, cultures, patient specimens and medical or clinical wastes.			
<i>Health hazards not otherwise classified</i>	Covers products that are not included in any other health hazard class. These hazards have the characteristic of occurring following acute or repeated exposure and have an adverse effect on the health of a person exposed to it.			

**NB:** Hazard statements are assigned alphanumeric code consisting of one letter and three numbers: Hnxx where H stands for "hazard statement" where n=3 stands for health hazards. xx is a sequential numbering of hazards arising from the intrinsic properties of the substance or mixture.

### Acute Toxicity Estimate (ATE) Values and Criteria

Toxicity category	Exposure routes				
	LD <sub>50</sub> Oral	LD <sub>50</sub> Dermal	LC <sub>50</sub> Inhalation		
	(mg/kg bodyweight)	(mg/kg bodyweight)	Gases (ppmV)	Vapours (mg/l)	Dusts and Mists (mg/l)
Extreme	≤ 5	≤50	≤ 100	≤ 0.5	≤ 0.05
High	5 < to ≤ 50	50 < to ≤ 200	100 < to ≤ 500	0.5 < to ≤ 2.0	0.05 < to ≤ 0.5
Moderate	50 < to ≤ 300	200 < to ≤ 1000	500 < to ≤ 2500	2.0 < to ≤ 10.0	0.5 < to ≤ 1.0
Low	300 < to ≤ 2000	1000 < to ≤ 2000	2500 < to ≤ 20000	10.0 < to ≤ 20	1.0 < to ≤ 5.0

**NB:** Acute toxicity estimate (ATE) for the classification of a substance and a mixture derived using LD<sub>50</sub> or LC<sub>50</sub>. A mixture may be derived by appropriate conversion value relating to classification category e.g. high, or range test 5<to≤50. Inhalation cut-off values are based on 4 hour testing exposures. Gas concentration expressed in parts per million per volume (*ppmV*). Dust is solid particles of a substance or mixture suspended in air; Mist is liquid droplets of a substance or mixture suspended in air, while, Vapour is the gaseous form of a substance or mixture released from its liquid or solid state.

### PART III: CLASSIFICATION BASED ON ENVIRONMENTAL HAZARDS

Classification		Hazard statement	Hazard statement codes	General description
Hazard Class	Hazard Category			
<i>Hazardous to the Aquatic Environment (Acute aquatic toxicity)</i>	Extreme / Acute 1	Very toxic to aquatic life	H400	Intrinsic property of a substance to be injurious to an aquatic organism in the Short term. <i>(See criteria in Part III: Table A below)</i>
	High / Acute 2	Toxic to aquatic life	H401	
	Moderate Acute 3	Harmful to aquatic life	H402	
<i>Hazardous to the Aquatic Environment (Chronic-Long-term)</i>	Chronic 1	Very toxic to aquatic life with long lasting effects	H410	Intrinsic property of a substance to cause adverse effects to aquatic organisms during exposure determined in relation to life-cycle of the organism.
	Chronic 2	Toxic to aquatic life with long lasting effects	H411	
	Chronic 3	Harmful to aquatic life with long lasting effects	H412	
	Chronic 4	May cause long lasting effects	H413	
<i>Hazardous to the ozone layer</i>	1	Harms public health and the environment by destroying ozone in the upper atmosphere	H420	Substances or mixture that depletes ozone layer in the stratosphere. <i>(See criteria in Part III: Table B below)</i>

**NB:** Hazard statements are assigned alphanumeric code consisting of one letter and three numbers: Hnxx where H stands for "hazard statement" where n=4 stands for environmental hazards. xx is a sequential numbering of hazards arising from the intrinsic properties of the substance or mixture.

**A. Hazardous to the Aquatic Environment (Acute Ecotoxicity / Acute Aquatic Hazard) Classification Criteria**

Toxicity category	96 hr LC <sub>50</sub> (for fish)	48 hr LD <sub>50</sub> (for crustacea)	72 or 96 hr ErC <sub>50</sub> (for algae or other aquatic plants)
	(mg/l)	(mg/l)	(mg/l)
<i>Extreme / Category Acute 1</i>	≤ 1	≤ 1	≤1
<i>High / Category Acute 2</i>	1 < to ≤ 10	1 < to ≤ 10	1 < to ≤ 10
<i>Moderate / Category Acute 3</i>	10 < to ≤ 100	10 < to ≤ 100	10 < to ≤ 100

NB: ErC<sub>50</sub> is the concentration of test substance which results in a 50 percent reduction in growth rate.

**B. Hazardous to the Ozone Layer Classification Criteria**

Category	Criteria
1	Any controlled substances listed in Annexes to the Montreal; or Any mixture containing at least one ingredient listed in the Annexes to the Montreal Protocol and Environment Management and Coordination (Controlled Substances) Regulations, 2007, at a concentration ≥ 0.1 %

**PART IV: CLASSIFICATION BASED ON CARCINOGENIC, MUTAGENIC AND TERATOGENIC (TOXIC FOR REPRODUCTION) / (CMR) EFFECTS**

**a) Classification Criteria for Germ Cell Mutagenicity**

<b>Group</b>	<b>Description</b>	<b>Definition</b>
Group 1	Carcinogenic to humans	<ul style="list-style-type: none"> <li>The chemical or material (mixture) is definitely carcinogenic to humans. The exposure circumstance entails exposures that are carcinogenic to humans.</li> </ul>
Group 2A	Probably carcinogenic to humans	<ul style="list-style-type: none"> <li>The chemical or material (mixture) is probably carcinogenic to humans. The exposure circumstance entails exposures that are probably carcinogenic to humans.</li> <li>Limited evidence of carcinogenicity in human and sufficient evidence of carcinogenicity in experimental animals.</li> </ul>
Group 2B	Possibly carcinogenic to humans	<ul style="list-style-type: none"> <li>The chemical or material (mixture) is possibly carcinogenic to humans. The exposure circumstance entails exposures that are possibly carcinogenic to humans.</li> <li>Limited evidence of carcinogenicity in humans and less than sufficient evidence of carcinogenicity in experimental animals.</li> </ul>
Group 3	Not classifiable as to its carcinogenicity to humans	<ul style="list-style-type: none"> <li>The chemical or material (mixture or exposure circumstance) is not classifiable as to its carcinogenicity to humans.</li> <li>Evidence of carcinogenicity is inadequate in humans and inadequate or limited in experimental animals.</li> </ul>
Group 4	Probably not carcinogenic to humans	<ul style="list-style-type: none"> <li>The chemical or material (mixture or exposure circumstance) is probably not carcinogenic to humans.</li> <li>Evidence suggesting lack of carcinogenicity in humans and in experimental animals.</li> </ul>

NB: Probably carcinogenic and possibly carcinogenic are descriptors with no quantitative significance with probably carcinogenic signifying a higher level of evidence than possibly carcinogenic.



## b) Classification Criteria for Carcinogenicity

Category	Classification Criteria	Description
Category 1A	Chemicals known to induce or regarded as if they induce heritable mutations in human germ cells.	<ul style="list-style-type: none"><li>• Positive evidence from human epidemiological studies</li></ul>
Category 1B	Chemicals known to induce or regarded as if they induce heritable mutations in human germ cells	<ul style="list-style-type: none"><li>• Positive results from in vivo heritable germ cell mutagenicity tests in mammals; or</li><li>• Positive results from in vivo somatic cell mutagenicity tests in mammals, in combination with some evidence that the substance has potential to cause mutations to germ cells.</li></ul>
Category 2	Chemicals that may induce heritable mutations in humans germ cells	<ul style="list-style-type: none"><li>• Positive evidence obtained from experiments in mammals and/or in some cases from in vitro experiments, obtained from somatic cell mutagenicity test in vivo, in mammals; or other in vivo somatic cell genotoxicity test which are to be supported by positive results from in vitro mutagenicity assays</li></ul>

NB: (1) Germ cells are those cells that are involved in the reproductive process and can give rise to a new organism. (2) Somatic cells are all body cells except the reproductive germ cells. (3) In vitro (latin: in glass): study tests performed outside a living organism (4) In vivo (latin: in the living): study tests performed in living organisms.

**c) Classification Criteria for Reproductive Toxicity**

<b>i</b>	<b>Category</b>	<b>Classification Criteria</b>	<b>Description</b>
<i>Adverse Effects on Sexual Function and Fertility</i>	1	Known or presumed human reproductive toxicant	<ul style="list-style-type: none"> <li>Includes substances known to have produced an adverse effect on sexual function and fertility or on development in human or for which there is evidence from animal studies supplemented with other information on the capacity of the substance to interfere with reproduction in humans.</li> </ul>
	1A	Known human reproductive toxicant	<ul style="list-style-type: none"> <li>The evidence is largely based from humans</li> </ul>
	1B	Presumed human reproductive toxicant	<ul style="list-style-type: none"> <li>The evidence is largely based from experimental animals.</li> </ul>
	2	Suspected human reproductive toxicant	<ul style="list-style-type: none"> <li>There is some evidence from humans or experimental animals, possibly supplemented with other information and where the evidence is not sufficiently convincing to place the substance in Category 1.</li> </ul>
<b>ii</b>	<b>Category</b>	<b>Classification Criteria</b>	<b>Description</b>
<i>Adverse Effects on the development of the offspring</i>	1 (Only one category)	Effects on or via Lactation	<p>Substances which are absorbed by humans and shown to interfere with lactation or may be present (including metabolites) in breast milk in sufficient amounts to cause health concern of the breastfed child.</p> <ul style="list-style-type: none"> <li>Absorption, metabolism, distribution and excretion studies that would indicate substance present in potentially levels in breast milk; and/or</li> <li>Results of one or two generation studies in animals provide clear evidence of adverse effect in the offspring due to transfer in the milk or adverse effects on the quality of the milk; and/or</li> <li>Human evidence indicating a hazard to babies during the lactation period.</li> </ul>

**PART V: CLASSIFICATION CRITERIA FOR MIXTURES OF TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS AND/OR MATERIALS**

Test Data on the Mixture	Criteria
Sufficient data / test data available on the hazards of the complete / similar mixtures to estimate classification hazards	<ul style="list-style-type: none"> <li>• Test data for that mixture is used to classify the hazards of the mixture.</li> </ul>
Data / test data not available on the hazards of the complete mixture	<ul style="list-style-type: none"> <li>• Apply “Bridging principles” on similar tested mixtures– the available data for the substances and/or ingredients that make up the mixture is used to characterize the hazards of the mixture</li> </ul>
Data / test data not available on the hazards of the complete mixture; and available information not sufficient to apply bridging principles.	<ul style="list-style-type: none"> <li>• The agreed method for estimating the hazards based on the information known will be applied to classify the mixture.</li> </ul>
Data / test data only available on the hazards of all ingredients	<ul style="list-style-type: none"> <li>• Apply “Summation method” – summation of components / ingredient concentrations based on their hazard categories.</li> <li>• Applicable examples include estimating acute toxicity, germ cell mutagenicity, carcinogenicity and reproductive toxicity hazard classes.</li> </ul>
Data not available for one or more ingredients of the mixture; or,  Other data available to estimate conversion values for classification	<ul style="list-style-type: none"> <li>• Additivity formula - summation of components concentrations based of the hazard parameter being investigated e.g. acute toxicity.</li> <li>• Available information can provide a derived conversion value which can be applied in a formula.</li> </ul>

**SECOND SCHEDULE**

**R 7(1), 8**

**REGISTER OF TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS AND MATERIALS**

<b>No.</b>	<b>NEMA Registration Number</b>	<b>Chemical Name</b>	<b>Product / Trade Name</b>	<b>HS No.</b>	<b>CAS No.</b>	<b>Hazard Characteristics</b>	<b>Uses</b>
1							
2							
3							
4							
5							

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**APPLICATION FOR REGISTRATION OF A TOXIC AND HAZARDOUS INDUSTRIAL CHEMICAL OR MATERIAL**

(To be submitted in triplicate and a soft copy)

Application Reference No.: .....

**PART A – Personal details**

Name of Applicant (Individual/Company): .....

.....

Postal Address: .....

Physical Address: .....

Fax: .....

Telephone: .....

E-mail Address: .....

Certificate of Incorporation/Registration: .....

PIN: .....

Category of applicant (Manufacturer/Agent/Exporter/Importer): .....

Name & Address of Manufacturer (where applicable): .....

.....

**PART B- Chemical Details**

Common name(s): .....

Chemical or Material name(s) and structural formula of the major active ingredient: .....

.....

CAS Registry No.: .....

HS No.: .....

Intended use: .....

**PART C – Chemical Characteristics**

1. Toxicity of toxic and hazardous industrial chemicals and materials to test animals (oral, dermal and inhalation LD<sub>50</sub> and LC<sub>50</sub>)
  - (a) Toxicity to bees: .....
  - (b) Toxicity to fish: .....
  - (c) Toxicity to birds: .....
  - (d) Toxicity to soil micro-organisms: .....
  - (e) Toxicity to others: .....
2. Persistence in the environment: .....
3. Safety measures
  - (a) Antidote(s): .....
  - (b) Safety precautions: .....
  - (c) First Aid measures: .....
  - (d) Any other relevant safety measures: .....
4. Registration numbers and references of the product in the country of origin and any other country(s) where it is marketed: .....
5. Is the product authorized to be on the market in the country of origin? If yes, attach evidence: .....

**PART IV – Other relevant Information**

1. Handling, storage and transportation information: .....
2. Indicate type of the packaging materials: .....
3. Methods of disposal: .....

The information contained herein is correct to the best of my knowledge and belief.

Name of Legally Authorized person: .....

Designation (if company) (Chairman, Secretary, etc.):  
.....

Signature of Applicant: .....

Date: .....

Seal/Stamp: .....

NOTE:           a) A separate application is required for each product  
                  b) If the space provided is not sufficient, attach a separate sheet.

**MATERIAL SAFETY DATA SHEET OUTLINE**

Information on MSDS should be provided in the order provided below:

1. Identification;
2. Hazard identification;
3. Composition / information of ingredients;
4. First-aid measures;
5. Fire-fighting measures;
6. Accidental release measures;
7. Handling and storage;
8. Exposure controls / personal protection;
9. Physical and chemical properties;
10. Stability and reactivity;
11. Toxicological information;
12. Ecological information;
13. Disposal considerations;
14. Transport information;
15. Regulatory information;
16. Other information.

**CONTENTS OF RISK MANAGEMENT PLAN AND TOXIC AND HAZARDOUS CHEMICALS (HAZCHEM) AND MATERIALS (HAZMAT) EMERGENCY RESPONSE PLAN**

**A. Risk Management Plan**

- Identification of the chemicals hazards / estimation of exposure.
- Hazard assessment and characterization including those affected and the how they are affected.
- Evaluation of the risks (the actions and pre-cautions needed).
- Decision criteria to determine acceptable levels of risk.
- Documentation and implementation.
- Any other relevant requirement as may be determined by the Authority.

**B. Chemicals (HAZCHEM) and Materials (HAZMAT) Emergency Response Plan**

- Notification procedures – persons and authorities to contact and how to contact.
- Emergency procedures to contain and decontaminate spills – immediate actions to be taken by driver or responsible staff, and the company when informed).
- Emergency equipment to be carried on the vehicle and on site such as personal equipment, absorbents, neutralizing solutions and salvage drums.
- Material safety data sheets of hazardous substance manufacture or transported.
- Site map indicating where hazardous chemicals are stored.
- Responsibilities of key persons in managing emergencies including on-site emergency response teams.
- Circumstances to activate the HAZCHEM and/or HAZMAT plan.
- Systems for raising the alarm.
- Estimating the extent of the emergency.
- Summoning emergency services authorities in the event of an emergency.
- Protection of all persons including detailed evacuation procedures and methods for accounting for all people at the workplace.
- Isolation of the emergency area to prevent entry by non-essential personnel.
- Incident Command System and Lead Agency.
- Hazardous Chemicals and/or Material Incident Classification.
- Fire-water retention procedures to ensure that contaminated fire-water cannot enter waterways, drains or ground water.
- Disconnection of power supplies and other energy sources except when required to maintain safety of a critical operation or to run emergency.
- Prevention of hazardous chemicals or contaminated material of any kind from entering drains or waterways.
- Provision of relevant information and assistance to the emergency services authority, both in anticipation of emergencies and when they occur.
- Maintenance of site security throughout the emergency.
- Provision for dealing with the public and the press.
- Waste management, site rehabilitation, restoration, and remediation requirements.
- Apply or Use *Kenya Standard Emergency Response Guide* where applicable.
- Any other relevant requirement as may be determined by the Authority.



**FORM A**

EMCA Cap 387, 119(1)



**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**  
**APPLICATION FOR ANALYTICAL AND / OR REFERENCE LABORATORY**  
**DESIGNATION**

(To be submitted in triplicate and a soft copy)

*Introduction and instructions*

1. This application form should be completed in detail and returned with the laboratory's control manual or equivalent documents.
2. Additional information may be given on supplementary sheets clearly indicating the paragraphs to which they refer. In paragraphs 8 onwards when the information requested in contained in the Control Manual, it is sufficient to enter a reference to the appropriate section of the Control Manual.
3. All information provided will be treated in the strictest confidence.

NEMA Reference Number: .....

**PART A**

<p>1. Name and Address of Testing Laboratory          Telephone No. :          Mobile:          Facsimile/Telex No.:          Email:          Physical Address:</p>	
<p>2. Name and Address of parent organization, if any          Telephone No. :          Facsimile/Telex No.:          Email Address:</p>	
<p>3. Name, Position (Director level) and address of the applicant (if different from that given in para.1)</p>	
<p>4. Name of main contact with NEMA and that of his deputy, and addresses (if different from that given in Paragraph 1)</p>	
<p>5. Specify as precisely as possible in the following table the scope of accreditation sought. Wherever possible, standard specifications should be quoted in column 3 of the table. These may include specifications issued by companies and other organizations, both Kenya and foreign, as well as national and international standards. Please give the reference number and date of specifications listed.</p>	

Signature: .....

Name: .....

Title: .....

Date: .....

*Visit the NEMA website ([www.nema.go.ke](http://www.nema.go.ke)) to complete the application process*

**FORM B**

Licence No. : .....

Application Reference No. : .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387  
ANALYTICAL AND/OR REFERENCE LABORATORY OPERATIONAL LICENCE**

Name: .....

Physical Address: .....

Postal Address: .....

You are hereby licensed to operate an Analytical and/ or Reference laboratory to undertake:

.....

This licence is valid from: ..... 20..... to .....20.....

This licence is subject to the following terms and conditions:

.....  
.....  
.....  
.....  
.....  
.....  
.....

Dated this ..... day of ..... 20.....

Signature .....

(Seal)

**Director General  
National Environment Management Authority**

**SIXTH SCHEDULE****R 18, 32(1)(4), 33 (6), 47(2), 48, 49****RESTRICTED AND BANNED CHEMICALS AND MATERIALS****Part I: Restricted Chemicals**

No	Chemical Name	CAS. No.	HS No (Pure Substance)	Status	Remarks (Extent of Use)
1.	Asbestos Crocidolite Actinolite Anthophyllite Amosite Tremolite	12001-28-4 77536-66-4 77536-67-5 12172-73-5 77536-68-6	2524.10 2524.90 2524.90 2524.90 2524.90	Restricted Restricted Restricted Restricted Restricted	
2.	Polybrominated biphenyls(PBB)	1336-36-3 (hexa-) 27858-07-7(octa-) 13654-09-6 (deca-)	- - -	Restricted Restricted Restricted	
3.	Polychlorinated biphenyls (PCB)	1336-36-3		Restricted	
4	Polychlorinated terphenyls (PCT)	61788-33-3	-	Restricted	
5.	Tetraethyl lead	78-00-2	2931.10	Restricted	
6.	Tetramethyl lead	75-74-1	2931.10	Restricted	
7.	Tris (2,3-dibromopropyl) phosphate Tributyl tin compounds	126-72-7, 56-35-9, 4342-36-3, 1461-22-9, 1983-10-4, 24124-25-2, 2155-70-6, 85409-17-2	2919.10 2931.20	Restricted Restricted	
8	Commercial octabromodiphenyl ether including: - Hexabromodiphenyl ether - Heptabromodiphenyl ether	36483-60-0 68928-80-3		Restricted Restricted	
9	Commercial pentabromodiphenyl ether including: - Tetrabromodiphenyl ether - Pentabromodiphenyl ether	40088-47-9 32534-81-9		Restricted Restricted	

10	<p>Perfluorooctane sulfonic acid, Perfluorooctane sulfonates, Perfluorooctane sulfonamides and Perfluorooctane sulfonyls including:</p> <ul style="list-style-type: none"> <li>- Perfluorooctane sulfonic acid</li> <li>- Potassium perfluorooctane sulfonate</li> <li>- Lithium perfluorooctane sulfonate</li> <li>- Ammonium perfluorooctane sulfonate</li> <li>- Diethanolammonium perfluorooctane sulfonate</li> <li>- Tetraethylammonium perfluorooctane sulfonate</li> <li>- Didecyldimethylammonium perfluorooctane sulfonate</li> <li>- N-Ethylperfluorooctane sulfonamide</li> <li>- N-Methylperfluorooctane sulfonamide</li> <li>- N-Ethyl-N-(2-hydroxyethyl) perfluorooctane sulfonamide</li> <li>- N-(2-Hydroxyethyl)-N-methylperfluorooctane sulfonamide</li> <li>- Perfluorooctane sulfonyl fluoride</li> </ul>	<p>1763-23-1 2795-39-3  29457-72-5 29081-56-9  70225-14-8  56773-42-3  251099-16-8  4151-50-2  31506-32-8  1691-99-2  24448-09  307-35-7</p>		<p>Restricted Restricted  Restricted Restricted  Restricted  Restricted  Restricted  Restricted  Restricted  Restricted  Restricted</p>	
11	<p>Mercury, Mercury compounds, Mercury-added products and Manufacturing processes using mercury or mercury compounds</p>	7439-97-6	2852.10	Restricted	<ul style="list-style-type: none"> <li>• Phase-out date for mercury- added products (manufacture, import or export) -Year 2020</li> <li>• Phase-out date for chlor-alkali production using mercury - Year 2025.</li> <li>• Phase-out date for acetaldehyde production using mercury or mercury compounds as catalyst - 2018</li> <li>• Vinyl chloride monomer production to reduce use of mercury per unit production by 50% by the</li> </ul>

					<p>2020 against 2010 use.</p> <ul style="list-style-type: none"> <li>• Sodium or Potassium Methylate or Ethylate production to; <ul style="list-style-type: none"> <li>i. phase-out use of mercury within 10 years of entry into force of the Convention, and</li> <li>ii. reduce emissions and releases of mercury per unit production by 50% by 2020 against 2010 use.</li> </ul> </li> <li>• Polyurethane production to phase-out use of mercury catalysts within 10 years of entry into force of the Convention.</li> </ul>
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## Part II: Banned Chemicals

No.	Chemical Name	CAS. No.	Status	Remarks (Extent of Use)
1	Hexabromobiphenyl	36355-01-8	Banned	
2	Hexabromocyclododecane (HBCDD)	25637-99-4	Banned	
3	Pentachlorobenzene	608-93-5	Banned	
4	Decabromodiphenyl ether	1163-19-5	Banned	
5	Hexachlorobutadiene	87-68-3	Banned	








Or any other chemical or material that the Cabinet Secretary may gazette

## HAZARD AND RISK SYMBOLS

## Physical, Health and Environmental Hazard Pictograms

Hazard	Pictogram	Code	Indication	Meaning
Physical		GHS04	Gas under pressure	Contains gas under pressure; may explode if heated. Contains refrigerated gas; may cause cryogenic burns or injury.
		GHS01	Explosive	Unstable explosive. Explosive; mass explosion hazard. Explosive; severe projection hazard. Explosive; fire, blast or projection hazard. May mass explode in fire.
		GHS03	Oxidising	May cause or intensify fire; oxidiser. May cause fire or explosion; strong oxidiser.
		GHS02	Flammable	Extremely flammable gas; Flammable gas; Extremely flammable aerosol; Flammable aerosol; Highly flammable liquid and vapour; Flammable liquid and vapour; Flammable solid.
Physical / health		GHS05	Corrosive	May be corrosive to metals. Causes severe skin burns and eye damage.
Health		GHS07	Health hazard	May cause respiratory irritation; May cause drowsiness or dizziness; May cause an allergic skin reaction; Causes serious eye irritation; Causes skin irritation; Harmful if swallowed; Harmful in contact with skin; Harmful if inhaled; Harms public health and the environment by destroying ozone in the upper atmosphere.
		GHS06	Acute toxicity	Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled. Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.
		GHS08	Serious health hazard	May be fatal if swallowed and enters airways; Causes damage to organs; May cause damage to organs; May damage fertility or the unborn child; Suspected of damaging fertility or the unborn child; May cause cancer; Suspected of causing cancer; May cause genetic defects; Suspected of causing genetic defects; May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Environmental		GHS09	Hazardous to the environment	Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects.

## Transport Pictograms







<b>CLASS 1: EXPLOSIVES</b>		
<i>Pictogram</i>	<i>GHS Hazard</i>	<i>Hazard Class &amp; Category</i>
	Divisions 1.1 to 1.3	<p><b>Division 1.1:</b> Substances and articles which have a mass explosion hazard</p> <p><b>Division 1.2:</b> Substances and articles which have a projection hazard but not a mass explosion hazard</p> <p><b>Division 1.3:</b> Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard</p>
	Division 1.4	Substances and articles which are classified as explosives but which present no significant hazard
	Division 1.5	Very insensitive substances which have a mass explosion hazard
	Division 1.6	No hazard statement
<b>CLASS 2: GASES</b>		
	Division 2.1	<p><b>Flammable Gases</b></p> <p>Gases which at 20 degrees Celsius and a standard pressure of 101.3kPa are either ignitable when in a mixture of 13 percent or less by volume with air, or have a flammable range with air of at least 12 percentage points regardless of the lower flammable limit</p>
	Division 2.2	<p><b>Nonflammable Nontoxic Gases</b></p> <ol style="list-style-type: none"> <li>Gases which are asphyxiant. Gases which dilute or replace the oxygen normally in the atmosphere</li> <li>Gases which are oxidising: Gases which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does</li> <li>Gases which do not come under the other divisions</li> </ol>
	Division 2.3	<p><b>Toxic Gases</b></p> <ol style="list-style-type: none"> <li>Gases which are known to be so toxic or corrosive to humans as to pose a hazard to health</li> <li>Gases which are presumed to be toxic or corrosive to humans because they have an LC<sub>50</sub> value equal to or less than 5,000 ml/m<sup>3</sup> (ppm)</li> </ol>



## CLASSES 3 AND 4: FLAMMABLE LIQUIDS AND SOLIDS




*Class 3- Flammable Liquids*

*Class 4 – Flammable Solids*

<i>Pictogram</i>	<i>GHS Hazard</i>	<i>Hazard Class &amp; Category</i>
	Class 3	<b>Flammable Liquids</b> Liquids which have a flashpoint of less than 60 degrees Celsius and which are capable of sustaining combustion.  (There are no subdivisions within this class).
	Division 4.1	<b>Flammable Solids, Self-reactive Substances and Solid Desensitized Explosives</b> Solids which, under conditions encountered in transport, are readily combustible or may cause or contribute to fire through friction; self-reactive substances which are liable to undergo a strongly exothermic reaction; solid desensitized explosives which may explode if not diluted sufficiently
	Division 4.2	<b>Substances Liable to Spontaneous Combustion</b> Substances which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up in contact with air, and being then liable to catch fire
	Division 4.3	<b>Substances which in Contact with Water Emit Flammable Gases</b> Substances which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities
<b>OTHER GHS TRANSPORT CLASSES</b>		
<i>Class 5 – Oxidizing Substances</i>		
<i>Class 6 – Toxic and Infectious Substances</i>		
<i>Class 7 – Radioactive Material</i>		
<i>Class 8 – Corrosives</i>		
<i>Class 9 – Miscellaneous Dangerous Goods</i>		
	Division 5.1	<b>Oxidizing Substances</b> Substances which, while in themselves not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material
	Division 5.2	<b>Organic Peroxides</b> Organic substances which contain the bivalent -O-O- structure and may be considered derivatives of hydrogen peroxide, where one or both of the hydrogen atoms have been replaced by organic radicals

## OTHER GHS TRANSPORT CLASSES

*Class 5 – Oxidizing Substances*  
*Class 6 – Toxic and Infectious Substances*  
*Class 7 – Radioactive Material*  
*Class 8 – Corrosives*  
*Class 9 – Miscellaneous Dangerous Goods*

<i>Pictogram</i>	<i>GHS Hazard</i>	<i>Hazard Class &amp; Category</i>
	Division 6.1	<p><b>Toxic Substances</b></p> <p>Substances with an LD<sub>50</sub> value ≤ 300mg/kg (oral) or ≤ 1,000 mg/kg (dermal) or an LC<sub>50</sub> value ≤ 4,000 ml/m<sup>3</sup> (inhalation of dusts or mists)</p>
	Class 7	<p><b>Radioactive Material</b></p> <p>Any material containing radionuclides where both the activity concentration and the total activity exceeds certain pre-defined values.</p> <p>(There are no subdivisions within this class).</p>
	Class 8	<p><b>Corrosive Substances</b></p> <ol style="list-style-type: none"> <li>1. Substances which cause full thickness destruction of intact skin on exposure time of less than 4 hours</li> <li>2. Substances which exhibit a corrosion rate of more than 6.25 mm per year on either steel or aluminum surfaces at 55 degrees Celsius</li> </ol> <p>(There are no subdivisions within this class).</p>
No Pictogram within this Class	Class 9	<p><b>Miscellaneous Dangerous Goods</b></p> <p>Substances and articles that present a danger or hazard during transport which are not covered by other classes. The class comprises but not limited to, environmentally hazardous substances, substances transported at elevated temperatures, miscellaneous articles and substances, genetically modified organisms and micro-organism, magnetized materials and aviation regulated substances.</p> <p>(There are no subdivisions within this class).</p>

**FORM 1**

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**APPLICATION FOR LICENCE TO MANUFACTURE/ IMPORT/ EXPORT TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

(To be submitted in triplicate and a soft copy)

**Contact details**

Applicant's full name: .....  
Address: .....  
Tel. No.: .....  
Cell phone No.: .....  
E-mail: ..... Fax: .....  
Full Name and Address of the Manufacturer: .....

**Manufacturing site information;**

Physical Location (county, town, street,): .....  
L.R. No.: .....  
G.P.S. Coordinates: .....

**Environment Impact Assessment Licence:** .....

**Product information**

- a. Registration number: .....
- b. Common names: .....
- c. Chemicals or materials name: .....
- d. Trade name: .....
- e. Formulation: .....
- f. Concentration: .....
- g. State of product (technical or formulated): .....
- h. Purpose for Manufacture: .....
- i. Quantity (Weight, Volume): .....

**DECLARATION BY APPLICANT**

I hereby certify that the particulars given above are correct or true to the best of my knowledge.

Name: .....  
Signature: ..... Date: .....

**FOR OFFICIAL USE ONLY**

Approved/Not approved: .....  
Comments: .....  
Receipt No.: ..... Amount (KShs): .....  
Officer's Name: .....  
Signature: ..... Date: .....

**FORM 2**

Licence No.: .....

Application Ref. No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**LICENCE TO MANUFACTURE/ IMPORT/ EXPORT TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

Application Ref. No.: .....

Name: .....

.....

Address: .....

Tel. No.: .....

This Licence is granted to (name of the applicant): .....

.....

Address: .....

to Manufacture Chemicals and / or Materials as follows:

Chemicals and / or Materials: .....

Quantity: .....

Registration No.: .....

For sale /export /own use: .....

This Licence is valid from: ..... to .....

Signed: ..... Date: .....

(Official seal)

**Director General  
National Environment Management Authority**

**FORM 3**

Application Reference No.: .....

Licence No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**NOTIFICATION OF TRANSFER OF LICENCE TO MANUFACTURE/ IMPORT/  
EXPORT/ TRANSPORT/ DISTRIBUTE/ STORAGE OF TOXIC AND HAZARDOUS  
INDUSTRIAL CHEMICALS OR MATERIALS**

**PART A: DETAILS OF CURRENT LICENCE**

A1: Name of the current licence holder: .....

A2: PIN No.: .....

A3: Tel. No.:  
.....

A4: E-mail Address: .....

A5: Application Number of the Current Licence: .....

A6: Date of issue of the Current Licence: .....

A7: Licenced activity: .....

**PART B: DETAILS OF THE TRANSFEREE**

B 1: Name (Individual/Firm): .....

B2: PIN No.: .....

B3: Address: .....

B4: Tel. No.: .....

B5: E-mail Address: .....

B6 Name of contact person: .....

B7: Capacity of transferee to run the licence activity (financial, technological, manpower): ...  
.....

**PART C: REASON(S) FOR TRANSFER OF LICENCE**

.....  
.....  
.....

**PART D: DECLARATION BY TRANSFEROR AND TRANSFEREE**

It is hereby notified that (Transferor) .....of (Postal Address) .....  
.....has on this..... day of..... 20..... transferred the  
Manufacture/ Import/ Export/ Transport/ Distribute/ Storage licence No: ..... to  
(Transferee) .. of (Postal Address) .....who  
will assume his responsibility for all liability under this project.

Transferor  
Name: .....  
Postal Address: .....  
Signed: .....  
Date: .....

Transferee  
Name: .....  
Postal Address: .....  
Signed: .....  
Date: .....

**PART E: FOR OFFICIAL USE**

Approved/Not approved: .....  
Comments: .....  
Receipt No.: ..... Amount (KShs): .....  
Officer's Name: .....  
Signature: ..... Date: .....

DRAFT

**FORM 4**

Application Reference No.: .....

Certificate No.: .....

**The Environmental Management And Coordination Act, Cap 387**

**CERTIFICATE OF TRANSFER OF LICENCE TO MANUFACTURE/ IMPORT/  
EXPORT/ TRANSPORT/ DISTRIBUTE/STORAGE OF TOXIC AND HAZARDOUS  
INDUSTRIAL CHEMICALS OR MATERIALS**

This is to certify that the Licence to Manufacture/ Import/ Export/ Distribute/ Transport/  
Storage of Toxic and Hazardous Industrial Chemicals or Materials  
number..... (Licence No.) issued on ..... (date) to .....  
..... (name of previous holder) of .....  
(Postal address) ..... regarding .....  
(licenced activity) whose objective is to .....  
.....  
..... (briefly describe purpose) located at  
..... (Title No., Locality and County) has been transferred to  
..... (name of new holder) of  
..... (Postal address) with effect from ..... (date  
of transfer) in accordance with the provisions of the Act.

Dated this..... day of..... (Month) 20 ..... (Year)

Signature .....

*(Seal)*

**Director General  
National Environment Management Authority**

**FORM 5**

Application Reference No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**APPLICATION FOR PERMIT TO IMPORT/ EXPORT TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

(To be submitted in triplicate and a soft copy)

**Personal details**

Applicant's full name: .....

Address: .....

Tel. No.: ..... Cellphone No: .....

E-mail: ..... Fax No.: .....

Full Name and Address of the Exporter or Importer:.....

.....

Nature of Business (Importer / Exporter / Wholesaler /Retailer /Distributor / Research /

Other): .....

**Product information**

1. Registration number: ..... Date of Expiry: .....

2. Country of Manufacture: .....

3. Country of origin (if being imported): .....

4. Country of destination (if being exported or re-exported): .....

5. Common names: .....

6. Chemical or material name: .....

7. Trade name: .....

8. Formulation: .....

9. Concentration/Purity: .....

10. State of product (technical or formulated): .....

11. Purpose of export/import: .....

a. For resale: .....

b. For manufacturing purpose: .....

c. For importers own use: .....

d. Others (specify): .....

12. Quantity (weight or volume): .....

13. Annual usage (weight or volume): .....

14. Value (Free On Board) Kshs.: .....

15. Licences (Environmental Impact Assessment, etc):

.....



**DECLARATION BY APPLICANT**

I hereby certify that the particulars given above are correct to the best of my knowledge.

Name: .....

Signature: ..... Date:.....

**FOR OFFICIAL USE ONLY**

Approved / Not Approved: .....

Comments: .....

Receipt No.: ..... Amount (KShs): .....

Officer's Name: .....

Signature: ..... Date: .....

DRAFT

**FORM 6**

Permit No.: .....

Application Ref. No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**PERMIT TO IMPORT/ EXPORT TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

Name: .....

Address: .....

Tel. No.: .....

This Permit is granted to (name of the applicant): .....

.....

Address : .....

To import /export/manufacture Chemicals or Materials as follows:

Chemicals or Materials: .....

Quantity: .....

Registration No.: .....

For resale / manufacture /export/import/own use: .....

This Permit is valid from: ..... to .....

Signed: ..... Date: .....

(Official seal)

**Director General  
National Environment Management Authority**

**FORM 7**

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**APPLICATION FOR PERMIT TO USE TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS FOR MINING / EXTRACTIVE ACTIVITIES**

**Contact details**

Applicant's full name: .....  
Address: .....  
Tel. No.: .....  
Cell phone No.: .....  
E-mail: ..... Fax: .....  
Full Name and Address of the Manufacturer: .....  
.....

**Mining site information;**

Physical Location (county, town, street,): .....  
L.R. No.: .....  
G.P.S. Coordinates: .....

**Environment Impact Assessment Licence:** .....

**Product information**

Registration number: .....  
Common names: .....  
Chemicals or materials name: .....  
Trade name: .....  
Concentration: .....  
State of product (technical or formulated): .....  
Purpose for use in mining: .....  
Quantity (Weight, Volume): .....

**Onsite / Mining site storage facility:** .....

**DECLARATION BY APPLICANT**

I hereby certify that the particulars given above are correct / true to the best of my knowledge.  
Name: .....  
Signature: ..... Date: .....

**FOR OFFICIAL USE ONLY**

Approved/Not approved: .....  
Comments: .....  
Receipt No.: ..... Amount (KShs): .....  
Officer's Name: .....  
Signature: ..... Date: .....

**FORM 8**

Permit No.: .....

Application Ref. No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**PERMIT TO USE TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS IN MINING / EXTRACTIVE ACTIVITIES**

Name: .....

Address: .....

Tel. No.: .....

This Permit is granted to (name of the applicant): .....

.....

Address: .....

To use toxic and hazardous industrial chemicals and / or materials for Mining / Other Extractive Activities as follows:

Chemicals or Materials	Registration No.	CAS No.	HS No.	Quantity	Purpose: Mining / Other Extractive Activities

Location of mining site (LR. No./ County/ Town/ Other): .....

.....

GPS Coordinates: .....

This Permit is valid from: ..... to .....

This permit is subject to the following conditions:

.....

.....

Signed: ..... Date: .....

(Official seal)

**Director General  
National Environment Management Authority**

**FORM 9**

Application Ref. No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**APPLICATION FOR LICENCE TO DISTRIBUTE TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

(To be submitted in triplicate and a soft copy)

**A. Person/ Firm/ Agent Information**

Name of the applicant: .....  
 PIN No.: .....  
 Tel. No.: .....  
 E-mail Address: .....  
 Licenced activity: .....

**B: Storage Facility/ies**

Location (County, Town): .....  
 GPS Coordinates: .....  
 Type (Warehouse/ Drum Store/ Tanks / Others ): .....  
 Capacity: .....  
 Description of the neighbourhood / surrounding environment: .....  
 .....  
 Environment Impact Assessment Licence: .....

**C. Inventory of Chemicals or Materials under Storage**

<b>Name of Chemicals or Material</b>	<b>UN Hazard Class</b>	<b>CAS No.</b>	<b>HS No.</b>	<b>Unit Capacity of Container</b>	<b>Total weight or volume</b>	<b>Purpose: For resale / Manufacture / Export/ Import/ Own Use/ Other</b>

**D. Details of Mode of Transport**

Mode of transport (road, water, air): .....  
 Type of Transport (vehicles/ ship / vessel/ aircraft/ other): .....  
 Registration number: .....  
 Approval licence/ permit/ other to transport: .....  
 Origin and destination: .....  
 Proposed transport route on a scaled map: .....  
 Frequency and duration: .....

**E. Inventory of Chemicals or Materials in Transit**

Name of Chemicals or Material	UN Hazard Class	CAS No.	HS No.	Unit Capacity of Container	Total weight or volume

**F. Hazard Assessment**

Describe the hazards of substance under storage (flammable/toxic/ explosive/ corrosive/ other): .....

List fire protection, spillage, release and pollution prevention / mitigation equipment in the vehicle, vessel or aircraft:

1. ....
2. ....

Describe the hazards of substance under storage (flammable/toxic/ explosive/ corrosive/ other): .....

List fire protection, spillage, release and pollution prevention / mitigation equipment in the vehicle, vessel or aircraft:

1. ....
2. ....

Employees and emergency response team and their qualifications (attach document proof):

Name	Training and Qualification

Specific action to be taken by emergency response staff in the event of an incident (spill/ release/ fire / other): .....

**G. Storage Requirement**

Applicant meets the storage safety requirements set out the Tenth Schedule of the toxic and hazardous industrial chemicals and materials regulations:

Yes  No  (Tick as appropriate)

**H. Emergency Response Plan**

Emergency and response plan with contents set out in the Fifth Schedule submitted:

Yes  No  (Tick as appropriate)

**I. Quality Assurance**

Provide certification of approval of the design, construction and testing of warehouse, storage and container tanks for bulk toxic and hazardous chemical or material transportation: .....

.....

**J. Any other information**

.....

Date: ..... Signature: .....

Designation / Title: .....

**FOR OFFICIAL USE ONLY**

Approved/Not approved: .....

Comments: .....

Receipt No.: ..... Amount (KShs): .....

Officer's Name: .....

(Official Seal)

Signature: ..... Date: .....

**FORM 10**

Licence No.: .....

Application Ref. No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**LICENCE TO DISTRIBUTE TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

Name: .....

Address: .....

Tel. No.: .....

This Licence is granted to (name of the applicant): .....

Address: .....

to distribute the following toxic and hazardous industrial chemicals or materials

<b>Name of Chemicals or Material</b>	<b>UN Hazard Class</b>	<b>CAS No.</b>	<b>HS No.</b>	<b>Unit Capacity of Container</b>	<b>Total weight or volume</b>	<b>Purpose: For resale / Manufacture / Export/ Import/ Own Use/ Other</b>

This licence applies to the following storage and transportation facilities:

*Storage*

Location (County, Town): .....

GPS Coordinates: .....

Type (Warehouse/ Drum Store/ Tanks / Others): .....

Capacity: .....

*Transport*

Mode of transport (road, water, air): .....

Type of transport (vehicles/ ship / vessel/ aircraft/ other): .....

Registration number: .....

Origin and destination: .....

Proposed transport route/s on a scaled map: .....



This licence is valid from ..... to .....

This licence is subject to the following conditions:

Hazard assessment and mitigation measures: .....

Emergency Response Plan: .....

Transports and Storage Certification Approvals / Requirements: .....

Trained employees and emergency response team: .....

Any other conditions: .....

Signed: ..... Date: .....

(Official seal)

**Director General  
National Environment Management Authority**

DRAFT

**FORM 11**

Application Ref. No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**APPLICATION FOR LICENCE TO STORE TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

(To be submitted in triplicate and a soft copy)

**A. Person/ Firm/ Agent Information**

I hereby apply for a licence to store toxic and hazardous industrial chemicals or materials of which particulars are given below:

Name of the applicant: .....  
 PIN No.: .....  
 Tel. No.: .....  
 E-mail Address: .....  
 Licenced activity: .....

**B: Storage Facility**

Location (County, Town): .....  
 GPS Coordinates: .....  
 Type (Warehouse/ Drum Store/ Tanks / Others ): .....  
 Capacity: .....  
 Description of the neighbourhood / surrounding environment: .....  
 Environment Impact Assessment Licence: .....

**C. Inventory of Chemicals or Materials**

<b>Name of Chemicals or Material</b>	<b>UN Hazard Class</b>	<b>CAS No.</b>	<b>HS No.</b>	<b>Unit Capacity of Container</b>	<b>Total weight or volume</b>	<b>Purpose: For resale / Manufacture / Export/ Import/ Own Use/ Other</b>

**D. Hazard Assessment**

Describe the hazards of substance under storage (flammable/toxic/ explosive/ corrosive/ other): .....

List fire protection, spillage, release and pollution prevention / mitigation equipment in the vehicle, vessel or aircraft:

1. ....
2. ....

Employees and emergency response team and their qualifications (attach document proof):

Name	Training and Qualification

Specific action to be taken by emergency response staff in the event of an incident (spill/ release/ fire / other): .....

**E. Storage Requirement**

Applicant meets the storage safety requirements set out the Tenth Schedule of the toxic and hazardous industrial chemicals and materials regulations:

Yes  No  (Tick as appropriate)

**G: Emergency Response Plan**

Emergency and response plan with contents set out in the Fifth Schedule submitted:

Yes  No  (Tick as appropriate)

**H. Quality Assurance**

Provide certification of approval of the design, construction and testing of warehouse, storage and container tanks for bulk toxic and hazardous chemical or material transportation: .....

**I. Any other information**

Attach recommendation document(s) from the relevant lead agency.

Date: ..... Signature: .....

Designation / Title: .....

**FOR OFFICIAL USE ONLY**

Approved/Not approved: .....

Comments: .....

Receipt No.: ..... Amount (KShs): .....

Officer's Name: .....

(Official Seal)

Signature: ..... Date: .....

**FORM 12**

Licence No.: .....

Application Ref. No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**LICENCE TO STORE TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

Name: .....

Address: .....

Tel. No.: .....

This Licence is granted to (name of the applicant): .....

Address : .....

to store the following toxic and hazardous industrial chemicals or materials:

Chemicals or Materials	Registration No.	CAS No.	HS No.	Quantity	Purpose: For resale / Manufacture / Export/ Import/ Own Use/ Other

Location (LR. No./ County/ Town/ Other): .....

GPS Coordinates: .....

Type (Warehouse/ Tanks / Others ): .....

Capacity:.....

This licence is valid from ..... to .....

This licence is subject to the following conditions:

.....  
.....

Signed: ..... Date: .....

(Official seal)

**Director General  
National Environment Management Authority**

**FORM 13**

Application Ref. No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**APPLICATION FOR LICENCE / PERMIT TO TRANSPORT AND / OR TRANSIT THROUGH KENYA TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

(To be submitted in triplicate and a soft copy)

**A. Person/ Firm/ Agent Information**

I hereby apply for a licence to transport toxic and hazardous industrial chemicals or materials of which particulars are given below:

Name of the applicant: .....  
PIN No.: .....  
Tel. No.: .....  
E-mail Address: .....  
Licenced activity: .....

Exporter Registration No:.....  
Name:.....  
Address: .....  
Contact Person:.....  
Telephone No.: ..... Fax: .....  
E-mail Address: .....

Importer Registration No:.....  
Name:.....  
Address: .....  
Contact Person:.....  
Telephone No.: ..... Fax: .....  
E-mail Address: .....

**B. Details of Mode of Transport / Intended carrier (s)**

Name:.....  
Address: .....  
Contact Person:.....  
Telephone No.: ..... Fax: .....  
E-mail Address: .....  
Mode of transport (road, water, air): .....  
Type of Transport (vehicles/ ship / vessel/ aircraft/ other): .....  
Registration number: .....  
Approval documents from relevant agency: .....  
Origin and destination: .....  
Proposed transport route on a scaled map: .....  
Frequency and duration: .....

Intended period of time for transit: .....  
 (Expected entry date:..... Expected exit date:.....)

**C. Inventory of Chemicals or Materials to be transported and / or on transit**

Name of Chemicals or Material	UN Hazard Class	CAS No.	HS No.	Unit Capacity of Container	Total weight or volume

**D. Hazard Assessment**

Describe the hazards of substance being transported (flammable/toxic/ explosive/ corrosive/ other): .....

List fire protection, spillage, release and pollution prevention / mitigation equipment in the vehicle, vessel or aircraft:

1. ....
2. ....
3. ....
4. ....

Training received by driver and emergency response team (attach document proof):

Name	Training and Qualification

Specific action to be taken by driver and or emergency response in the event of an incident (spill/ release/ fire / other): .....

**E. Transport Safety**

Applicant meets the transport safety requirements provided under regulation 36 of the toxic and hazard industrial chemicals and materials regulations:

Yes  No  (Tick as appropriate)

**G: Emergency Response Plan**

Emergency and response plan with contents set out in the Fifth Schedule submitted:

Yes  No  (Tick as appropriate)

**H. Quality Assurance**

Certification of approval of the design, construction and testing of tank and tank containers for bulk toxic and hazardous chemical or material transportation: .....

**I. Written Prior Informed Consent (PIC) from relevant Compentent Authority of country of import: Has consent been given?**

Yes  No  (Tick as appropriate), [If “Yes”, attach copy of PIC]

**J. Any other information**

.....

Attach recommendation document(s) from the relevant lead agency.

I / We ..... Hereby confirm that the above information and particulars is true and correct.

Date: ..... Signature: .....  
Designation / Title: .....

**FOR OFFICIAL USE ONLY**

Approved/Not approved: .....  
Comments: .....  
Receipt No.: ..... Amount (KShs): .....  
Deposit bond – 15% of Cost, Insurance and Freight value (CIF) (Refundable) (KShs):.....  
Application received by (Officer’s Name): .....  
Signature: ..... Date: .....

**FORM 14**

Licence No.: .....

Application Ref. No.: .....

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**LICENCE / PERMIT TO TRANSPORT AND / OR TRANSIT TOXIC AND HAZARDOUS INDUSTRIAL CHEMICALS OR MATERIALS**

Name: .....

Address: .....

Tel. No.: .....

This Licence is granted to (name of the applicant): .....

Address: .....

to transport the following toxic and hazardous industrial chemicals or materials:

Registration No.	Chemicals or Materials	Trade Name	CAS No.	HS No.	Approved / Licensed Quantity (Kgs)	Quantity to be Imported / Exported (Kgs)	Balance of Quantity to be Imported / Exported (Kgs)	Purpose: For resale / Manufacture / Export/ Import/ Own Use/ Transit / Other

Mode of transport (road, water, air): .....

Type of transport (vehicles/ ship / vessel/ aircraft/ other): .....

Registration number: .....

Origin and destination: .....

Country of origin and Country of destination: .....

Proposed transport route/s on a scaled map: .....

Frequency and duration: .....

This licence /Permit is valid from: ..... to .....

This licence / Permit is subject to the following conditions:

Signed: ..... Date: .....

(Official seal)

**Director General  
National Environment Management Authority**





**REQUIREMENTS OF HAZARDOUS AND TOXIC CHEMICALS OR MATERIAL STORAGE FACILITY**

- a. Storage and labeling is done in accordance with the instructions on the safety data sheet.
- b. An up-to-date inventory should be maintained and available for inspection at any time.
- c. Segregation and storage should be done according to chemical family or hazard classification.
- d. A manual is prepared and maintained with instructions of the basic storage requirements and procedures specific to chemicals or materials in storage facility.
- e. The storage area should be well lit and ventilated. The path ways, doorways, exits and entryways shall be clear of any obstruction.
- f. Ensure the storage facility does not pose danger or risk to the environment including those staying near the facility and surrounding environment.
- g. Chemicals and / or materials must not be stored together with inflammable materials and gas cylinders.
- h. Acids and alkalis are not stored together.
- i. Strong acids and organic substances are not stored together.
- j. Strongly oxidising substances are not stored together with oxidisable substances.
- k. Ethers and other peroxide-building substances must be stored in dark and cool, in tightly sealed containers.
- l. Certified and approved containers should be used for storage.
- m. Containers must be stored with closed lids when they are not being used.
- n. Refrigerators and freezers for storage of chemicals and materials must be specially made for this purpose and not intended to store food.
- o. Chemicals and / or materials stores should not have open floor drains.
- p. Leakages and / or spillages are prevented at all times. In the event of an accident, adequate storage capacity is provided that is able to contain the volume of chemical displaced.
- q. Equipment for handling and cleaning up spillage must be readily available and suitable for the chemicals being stored.
- r. Fire classification of storage lockers and rooms should match the types and amounts of chemicals or materials being stored.
- s. Combustible materials must be stored in fireproof cupboards or in separate spaces.
- t. Emergency equipment should be provided, also easy to access and are kept in good working condition
- u. Personal safety measures during working and in the event of an accident should be provided such as use of personal protective devices and first-aid kits.
- v. Storage facilities should be inspected regularly.
- w. Any other relevant requirement as may be determined by the Authority.

**TRANSPORT EMERGENCY (TREM) CARDS**

Description of Cargo: .....  
Transporter (Name and physical address): .....  
Name of products: .....  
Telephone Number: ..... Cell phone Number: .....  
Consignor (Name, physical address): .....  
Fax: ..... Telephone No: ..... Cell phone: .....  
Consignee (Name and physical address): .....  
Telephone No.: ..... Cell phone: ..... Fax: .....

**Load Details**

No. of packages: .....  
Registration No.: .....  
HD Substance / Article: .....  
Total Quantity: .....  
Special Comments: .....

**Emergency Action:**

Notify police, Fire brigade and NEMA immediately. If possible, move vehicle to open ground and stop the engine.  
No naked lights. No smoking.  
Mark road and warn road users.  
Keep public away from danger area.  
Avoid making sparks. Use non-sparking hand tools or avoid direct metal to metal contact.

**Spillage**

Do not touch.  
Consult an expert.  
Do not expose to electric current or heat.  
Do not repack – but protect material from accidental ignition. Reseal where necessary.  
Warn everybody – EXPLOSION HAZARD.

**Fire**

For small fire on cab, tires or engine which can be extinguished quickly before it reaches the cargo, use vehicle extinguisher, water, dry powder, earth or sand.  
In case of extensive fire which is spreading to the cargo, do not attempt to extinguish.  
Evacuate area within a radius of 100 metres.

**First Aid**

Keep patient warm.  
In case of burns, immediately cool affected skin as long as possible with cold water.  
Seek immediate medical help.

Additional information provided by manufacturer or sender.

**TWELFTH SCHEDULE**

**R 46(3)**

**POLLUTANT RELEASE AND TRANSFER REGISTER**

Pollutant		Thresholds WHO			Threshold, Kenya				
CAS Number	Pollutant Name	Release to Air (Kg/year)	Release to Water (Kg/year)	Release to Land (Kg/year)	Release to Air (Kg/year)	Release to Water (Kg/year)	Release to Land (Kg/year)	Manufacture, Process or Use (Kg/year)	Off-Site Transfer
<i>Polycyclic aromatic hydrocarbons (PAHs)</i>									
120-12-7 etc	Anthracene								
<i>Other organic substances</i>									
71-43-2 etc	Benzene								
<i>Chlorinated and brominated organic substances</i>									
107-06-2	1,2-Dichloroethane								
<i>Persistent Organic Pollutants (POPs)</i>									
309-00-2 57-74-9 Etc.	Aldrin Chlordane								
<i>VOCs</i>									
<i>Ozone Depleting Substances</i>									
LCL-65 etc	Halons								
<i>Green House Gases</i>									
124-38-9 74-82-8 etc	Carbon dioxide Methane								
<i>Metals</i>									
LCL-7 etc	Arsenic and compounds								
<i>Inorganic substances</i>									
1332-21-4 etc	Asbestos								

NB: The entries in the table are for guidance purposes. A comprehensive list of pollutants is expected from the emitting and / or discharging facility. Etc indicates that more pollutants can added under the respective category.

**CRITERIA FOR RESTRICTING OR BANNING OF TOXIC CHEMICALS AND MATERIALS.**

- 1) Physicochemical, toxicological and eco-toxicological information from internationally recognized sources.
- 2) Information on alternatives and their relative risks to human health and environment.
- 3) Proven evidence of hazards and risks posed by the chemical or material to human health, wildlife, livestock and the environment from national and international risks evaluation.
- 4) Evidence that the half-life of the chemical or material in water is greater than 2 months, or that its half-life in soil is more than 6 months.
- 5) Bio-accumulation evidence in food chain from scientific recognized sources.
- 6) Potential for long range environmental transport in air, water and migratory species.
- 7) Credible evidence that the chemical or material has been banned or restricted in other countries, or under relevant Multilateral Environmental Agreements (MEAs).
- 8) Available data on chemical or material which is generated and documented according to scientifically recognized methods.
- 9) Information on incidents related to the chemical or material from other countries or internationally recognized sources such as the Guidance Documents on chemicals.
- 10) Socio economic considerations:
  - a. Alternatives for products and processes;
  - b. Costs, including environmental and health costs;
  - c. Efficacy;
  - d. Risks;
  - e. Availability; and
  - f. Accessibility;
- 11) Positive and/or Negative Impacts on Society: and
  - a. Health, including public, environmental and occupational;
  - b. Agriculture and Forestry;
  - c. Biodiversity;
  - d. Economic Aspects;
  - e. Social Costs; and
  - f. Any national, regional or international control actions taken and other relevant risk management information;
- 12) Where a chemical or material should be banned, and there are no suitable alternatives, the Authority shall institute restrictive measures to the use of that chemical or material.
- 13) Any other relevant requirement as may be determined by the Authority.

**ENVIRONMENT MANAGEMENT AND COORDINATION ACT, CAP 387**

**INCIDENT REPORT FORMAT**

**Particulars**

Name of the Facility: .....  
E-mail Address: .....  
Telephone Number: .....  
Fax No.: .....  
Date/Time of Incident: .....  
Incident Type (Explosion/ Fire/ Spillage/ Leakage / Gas / Dust/ Fumes Release/ Others): .....  
.....  
Material / Chemical released (Quantity): .....  
Physical state: .....

**Incident location**

Physical Address:- County: ..... Town: .....  
Street: ..... GPS Coordinate: .....  
Impact (Human health, Environment, Property Damage and Others): .....  
.....  
Activity (Manufacture/ Storage/ Transport / Others): .....  
Cause: .....  
Response/ Control measures undertaken: .....  
Decontamination and disposal: .....  
Future / preventive measures employed: .....  
Name of Person: .....  
Designation: .....  
Sign: ..... Date: .....

**FIFTEENTH SCHEDULE****R 14, 24****PRESCRIBED FEES**

Application for registration.....	Kshs. 5,000
Application for licence to Manufacture/ Distribute/ Transport / Storage .....	KShs. 5,000
Application for licence to Import/ Export / Transit - through Kenya .....	KShs. 5,000
Application for permit to Import/ Export/Transit - through Kenya .....	KShs. 5,000
Application for permit to Use toxic and hazardous industrial chemical ..... in Extractive Processes	KShs. 5,000
Application for Laboratory Designation.....	KShs. 5,000
Application for Annual Laboratory Operating Licence .....	KShs. 5,000
Application for Transfer of Licence .....	KShs. 5,000
Permit to Import / Export/ Transit – through Kenya (per Consignment) .....	KShs. 50,000
Deposit bond .....	15% of Cost, Insurance and Freight value (CIF) (Refundable)
Permit to use toxic and hazardous industrial chemical in ..... Extractive Industrial Processes	KShs. 30,000
Annual Licence to Manufacture/ Distribute/ Transport / Storage .....	KShs. 50,000
Annual Laboratory Operating Licence .....	KShs. 30,000

**Cabinet Secretary for Environment and Forestry**