Sterling Chemical Malta Ltd

OPERATIVE INSTRUCTION:

HAZARDOUS SUBSTANCES MANAGEMENT

REVISION HISTORY

Revision Date	Revision Number	Sections affected	Description of the change
15.02.2014	00		First issue

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1. PURPOSE

This procedure defines the operating methods to manage chemicals in all stages necessary for their use, that is to say from selection and provision phase to storage, use and possible disposal phase in order to ensure employees safety and health.

2. SCOPE

This procedure applies to all chemicals used and stored in the plant by delegating to an operative instruction for chemical carcinogenic substances or mutagens.

3. REFERENCE DOCUMENTS

Reference documents for the comprehension of this procedure are the followings:

- Regulation UNI EN ISO 14001 – requirements and use guide (point 4.4.6);
- Regulation OHSAS 18001 (section 4.4.6)- Management systems of safety and health at work
- Legislative Decree 81/2008 and subsequent amendments. Title IX "Hazardous substances"
- Legislative Decree 81/2008 and subsequent amendments. Title X "Biological agent"
- Legislative Decree 81/2008 and subsequent amendments. Attachments: III, XXVII, XXXVIII;
- Legislative Decree 152/2006 and subsequent amendments– Consolidated Act on environmental rules;
- Legislative Decree 128/2010 and subsequent amendments. Amendments and additions to Legislative Decree n. 152/2006 establish rules on the environment in accordance with Article 12 of Law 20098 June 18, n. 69.
- Regulation 9 January 1927 n. 147 and subsequent amendments.
- DD. N. 004894 dated 8 June 2011 by province of Perugia – Environmental Integrated Authorization and subsequent amendments and additions;
- Regulation CLP n. 1272/2008
- Regulation REACH n. 1907/2006

4. BASIC DEFINITIONS

- Chemical agents: All chemical elements or compounds, either alone or in mixtures, in their unaltered state or extracted, used or disposed, including disposal as a waste, by any working activity. It includes also chemicals, whether intentionally produced or not, which are present or not on the market.
- **Hazardous chemical agents:** Hazardous chemical agents:

1. chemicals classified as Hazardous substances according to the legislative decree of the 3rd of February 1997, n. 52, as amended, and agents who meet the classification standards as hazardous substances whereof the aforementioned decree. Substances that are hazardous only for the environment are excluded;
2. chemicals classified as hazardous preparations according to the legislative decree of the 14th of March 2003, n. 65, as amended, and agents who meet the classification standards as hazardous preparations whereof the aforementioned decree. Preparations that are hazardous only for the environment are excluded;

3. chemicals which, although they are not classified as hazardous according to numbers 1) and 2) may be a risk for workers safety and health due to their physical-chemical, toxicological or chemical properties and to the way thy are used in working areas, including any chemical agent to which was assigned an occupational exposure limit value;

- **Activity involving chemical agents**: It refers to any working activity in which chemical agents are used, or are intended to be used, during any process, including production, handling, storage, transport or disposal and waste treatment, or which result from these activities;
- **Occupational exposure limit value**: unless otherwise specified, it refers to the limit of the time-weighted average concentration of a chemical agent in the air within a worker's breathing zone with relation to a specified time lapse;
- **Biological limit value**: it refers to the concentration limit of an agent, its metabolite, or an indicator of effect, in the appropriate biological medium;
- **Authorized departmental manager**: it refers to the head of the department or his delegate who has the task to promptly notify the HSE department about chemical agents that will be used for a specific task within his own department;
- **RGDR:** Responsible for waste management documentation
- **List of chemicals:** List of chemicals in use and regularly reported and managed by the Organization;

5. RECIPIENTS

This procedure addresses to:

- EH&S office;
- DLS: Safety delegate
- RSPP;
- Production department;
- Warehouse area;
- Research and Development laboratory;
- Quality control laboratory;
- Analytical Research laboratory;
- Technical Office;
- Maintenance;
- Purchases department;
- Trade office;
- Responsible for waste management documentation (RDGR)

6. PROCEDURES

6.1 New chemicals analysis and selection

It is necessary to establish clear criteria concerning provision and storage procedures for hazardous substances. They must be established by taking into account the risk factors coming from the products used. It is better to use products which, on equal effectiveness, minimize the risk factors both for workers health and safety and for the environment.
When you need to purchase any new chemical agent (cleanser, additive, reagent, solvent, etc..) or produced by a different supplier than the usual one, the authorized departmental manager

(Production-manager, laboratory-manager etc. or a delegate), after consulting the List of raw materials already registered and authorized for his department, has to apply to the 'EH & S Office by filling in the form (**MM_4.3.1-A Notice of Change**) in which he has to specify:

- The department that applies for the chemical and its expected use
- if it is already in use or it is a new product;
- the storage place;
- the supplier
- the expected use

Once receipt the notice, the RSPP carries out the following activities:

- First, it acquires the safety data sheet if not submitted along with the request;
- It analyzes the sheet to assess the level of risk taking into account the indications and risk expressions indicated on the document. If the information on safety data sheet is incomplete or not in compliance with law requirements, it asks the supplier for a clarification requesting a written response;
- It checks the compatibility of the product with the application and working environments
- In cooperation with the departmental manager, it evaluates if there are alternative products with a lower level of toxicity/danger (basing on the safety data sheet indications) on the market that allow you to achieve the same result.
- According to the CLP regulation n.1278/2008, and according to REACH, it evaluates if you need to handle some legal tasks (notify the ECHA about the agent classification, the agent registration according to REACH, etc...)

The RSPP analysis is shown in the second part of the form (**MM_4.3.1-A Notice of Change**) and will be forwarded to the Safety delegate for a product final approval.

After the approval by the Security delegate, the RSPP provides to:

- Update the list of chemicals and forwards it to all the departmental managers (purchase office, area managers);
- Evaluate if you need to update the document on chemical risk assessment, according to the agent danger;
- Check the need for new training or informative activities;
- Check the need for new operating instructions and / or other control measures, including any specific PPE;
- File the safety data sheet of the new chemical agent and make a copy available in the areas of use.

It will be RSGA duty to:

- identify significant environmental aspects;
- verify the usability of the new product in relation to the environmental regulations in force. Particularly in the following cases:

- When introducing new organic solvents, chlorine and sulphur compounds as well as chemicals and mutagens that are carcinogenic or toxic for reproduction;or substances with a very high toxicity and cumulation level reported from section II of annex I to section five of the Legislative Decree 152/2006 and subsequent amendments in the Quality Control and Analytical Research laboratories;
- When introducing new organic solvents, chlorine and sulphur compounds as well as chemicals and mutagens that are carcinogenic or toxic for reproduction or substances with a

very high toxicity and cumulation level reported from section II of annex I to section five of the Legislative Decree 152/2006 and subsequent amendments in the Research and Development laboratories and the pertaining pilot plant

- When introducing new organic solvents, chlorine and sulphur compounds as well as chemicals and mutagens that are carcinogenic or toxic for reproduction;or substances with a very high toxicity and cumulation level reported from section II of annex I to section five of the Legislative Decree 152/2006 and subsequent amendments in the production plant on industrial scale;
- When introducing new substances that are very toxic for the aquatic and anthropogenic environment.

If the requested material does not appear among the already authorized products and belongs to the above specified categories, RSGA will has to request permission to the Competent Authorities using the procedure laid down in Art. 29h let. a) of the Legislative Decree 128/2010 which considers the tacit approval procedure. In case the Competent Authority on Integrated Environmental Authorisation does not express within sixty (60) days after the request for an opinion by the Manager, the Organization has the right to use the declared substances. If the Competent Authorities communicate the need for an update of the licence, the Organization cannot use new declared substances until the emission of the update itself.
Following the RSGA and RSGS evaluation, the decision of acceptance or non-acceptance of the change request will be noticed to the department manager. Once read the evaluation document he will countersign the form **"notice of change" MM_4.3.1-A.** This form will be kept in a secure cabinet in the EHS office into the appropriate "notice of change" binder.
It is RSGA and RSGS right to require additional specific material and it is RSGA, RSGS and the department manager right to request a special meeting in order to discuss the change you wish to make, illustrating the need to adopt new raw material or the new supplier.
Purchases Department and Sale Department have the task to periodically update the safety data sheets. In particular, safety data sheets of the products already in use in the plant have to be required annually to the supplier and submitted with the first goods load of the year. Sheet updating has to be noticed into the **MR_4.4.6-D3 List of chemicals** edited by the HSE office. At the reception warehouseman must ensure about the presence of the safety data sheet otherwise goods will not be accepted. For raw materials from non-EU countries and / or those directly bought and processed by the Sales Department it is duty of the Sales employee to submit the safety data sheet.

6.2 Incoming Hazardous substances control

When hazardous substances arrive to the plant, warehouseman has to carry out an inspection of incoming substances in order to make sure:

- The product correspond with the purchase document he has;
- The product correspond with DDT
- Packaging and its labelling are complete (with symbols and general safety information)
- Safety data sheet comes with the product if delivery is scheduled for each supply or that it appears in the Official List he already has.
- Monitoring procedures and relevant recordings required to monitor incoming product are shown in procedure M.SOP. 001 “Reception of goods in stock”.

According to safety data sheet information (in section titled Handling and Storage), warehouse manager organizes the storage and makes sure that the supply is stored in accordance with sheet regulations and other possible operating instructions he has.
If correct procedures to safely storing products cannot be guaranteed (e.g. due to lack of appropriate cabinets or storages even if only temporary), he has to timely report the problem to RSPP.

6.3 Hazardous substances storing and handling

In storage rooms of hazardous products a warning label must be post up with notices and symbols in order to effectively signal the danger.
Before using hazardous substances, department manager has to consult the safety data sheet and inform the other operators making sure they are aware of the risks that an exposure to the chemicals entails.
Before using hazardous substances, department manager verifies the availability of PPE necessary for the use of the product in question.
In case PPEs are not available near the place of use, he has to promptly request RSPP for a new supply by following indications in procedure **MPS_4.4.6-Protection devices management.**
Hazardous substances must be used following safety instructions provided by the manufacturer / distributor in the safety data sheet.
As far as management (including storage too), handling and the eventual disposal of carcinogenic substances please refer to **MIO_4.4.6-D2 "Carcinogens management "**. With respect to transportation, including also loading and unloading of goods, please refer to instruction **MIO_4.4.3-B1 "loading and unloading of goods,"**
As far as the management of stored toxic gases used in laboratories, maintenance and production areas, according to the Regulations of January the 9th, 1927 n. 147 and subsequent amendments it is possible to store toxic gases up to a quantity that is lower or equal to 75 kg. To comply with this regulation a monthly check on the quantity stored was introduced. It must be made by filling in the register **MRA_4.4.6-D4 toxic gases register.** Before ordering any supply of technical gases, supplies office has the responsibility to charge warehousemen with checking out the quantity in storage. After each check they will report the exact amount and conditions of products stored to the supplies office, the environment health safety office and to the production office. Reporting can also be done by mail. Register must be signed and dated after each check it must be kept in the warehouse office making it available to any possible consultation / inspection by RSGA.
Other key elements to be controlled are the refrigerants used in chillers and in the air-conditioning system. They are the hydrofluorocarbons that have to be monitored and supervised in case of losses because they are greenhouse gases.

6.4 Hazardous substances disposal

Waste resulting from handling and use of hazardous substances have to be classified in accordance with the instructions provided in the corresponding safety data sheets and in compliance with the assignment criteria of the Waste Code (EWC codes is also assigned according to the production process that generated the waste). In case of a waste that is different than the usual produced wastes please refer to procedure **MIOA_4.4.6-A**.
Temporary storage and disposal / recovery of this waste must be done in compliance with the current environmental legislation and regulations.

7. ENVIRONMENTAL LEGISLATIVE PROVISION

The integrated environmental authorisation requires also the following working conditions:

1. In the places where all chemicals are stored there must not be any direct link between products placed to monitor any spill (containment basins) and sewerage;
2. All chemical products or agents must be kept in their original packaging;
3. If you need to decant, the container must be labelled so that it reports the same indications of the original container that are readable even within a long time;
4. Label provided by EH & S office is shown in figure 1.
5. All containers of chemicals must be carefully labelled. Labels must report all the information required by law (substance name, pictograms, risk phrases, safety advice, information concerning the supplier and the mass or volume of the content);
6. In laboratories/services only quantities of chemicals necessary for the work in progress can be used;

INTERNAL CODE	**PRODUCT NAME**		**CAS**	P_4.4.6-D Rev. 02
Indication of danger H;		**pictograms**		
Precautionary statements				
Risk phrases;				
Other information			.	
			.	

Picture 1 Labels for poured products

8. RESPONSIBILITY

RSGA and RSGS are responsible for the application of this procedure. Checks can be made by Audit involving from time to time the operator concerned. Purchasing and Sales Office has the responsibility to require annually the safety data sheets updated with products/substances already used and included in the List of Chemicals provided to the Organization.
RGDR has the responsibility to correctly fill in the form and all documents necessary for the proper disposal/transport of waste. RSGA with the support of RGDR has the responsibility to verify the correct waste labelling. Warehousemen have the responsibility to check the conformity of incoming products with those required to the supplier. After consulting RSPP and the Safety Officer, RSGS has the responsibility to define the appropriate storage procedures and the correct PPE to be used when handling incoming chemicals. Warehousemen have the responsibility to update the register while controlling the amount stored and to warn the operators involved in the management of toxic gases after each check.
For RDOC or, in case it is absent, for RSGA it is mandatory to annually make an inspection (during the Management review) on hazardous substances used and/or stored in the plant to determine if the organization falls within the category of industries at risk of major industrial accidents.