



QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR HANDICRAFTS AND CARPET SECTOR

What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Introduction

Qualifications Pack- Dyer (*Rangsaaz*)

SECTOR: Handicrafts and Carpet

SUB-SECTOR: Carpet

OCCUPATION: Processing

REFERENCE ID: HCS/Q5101

ALIGNED TO: NCO-2004/8264.70

Dyer (*Rangsaaz*) The Dyer commonly called as *Rangsaaz* is responsible for dyeing of woolen, viscose (art silk), cotton as well as new materials of Polypropylene, banana yarn, silk etc mainly in hank (*lachchi*) form

Brief Job Description: The Dyer is a job role responsible for dyeing of yarn of various chemical origins like cotton, viscose, wool, silk to synthetic materials either with traditional methods with little automation to specially developed hank dyeing machines. The dyed materials are expected to match with standard shades for hue, tone as well as conform to requirements for desired level of fastness.

Personal Attributes: The dyer should be keen, vigilant, good eyesight, patient and investigative. He should be free from defects of colour vision. He should have keen interest on learnings



Job Details	Qualifications Pack Code	HCS/Q5101		
	Job Role	Dyer (Rangsaaz)		
	Credits (NSQF)	TBD	Version number	1.0
	Sector	Handicrafts and Carpet	Drafted on	30/04/15
	Sub-sector	Carpet	Last reviewed on	27/05/15
	Occupation	Processing	Next review date	26/05/16
	Job Role	Dyer (Rangsaaz)		
Role Description	To execute process plan steps in strict sequence and harmony in selection, weighing, addition of dyes and chemicals to monitoring for the complete dyeing cycle defined exclusively in parlance with materials, environmental conditions and machines/method of dyeing in consideration.			
NSQF level	4			
Minimum Educational Qualifications*	Preferably Class XII with Science			
Maximum Educational Qualifications*	Not Applicable			
Training (Suggested but not mandatory)	Not Applicable			
Experience	1-2 years of working experience in textile/apparel/carpet process house			
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> HCS/N5101 Operating the Weighing scale and Weighing of Dyes & Chemicals HCS/N5102 Dissolving & Dispensing of Dyes, Chemicals & Auxiliaries HCS/N5103 Developing Recipe for Dyeing of Textile Materials HCS/N9906 Maintain work area, tools and machines HCS/N9908 Working in a team HCS/N9907 Maintain health, safety and security at workplace HCS/N9909 Comply with industry and organizational requirement <p>Optional: Not Applicable</p>			
Performance Criteria	As described in the relevant OS units			



Keywords /Terms	Description
Definitions	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Sub-functions	Sub-functions are sub-activities essential achieving the objectives of the function.
Job role	Job role defines unique set of functions that together form a unique employment opportunity in an organization.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve consistently while carrying out a function at the workplace. Occupational Standards as set of competencies is applicable both in Indian and overreaching global contexts.
Performance Criteria	Performance Criteria defined for a task are statements that together specify the standard of performance while carrying out the task.
National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack(QP)	Qualifications Pack comprises set of OS, together with the educational, training and other criteria that are required to perform a job role satisfactorily at workplace. A Qualifications Pack is assigned a unique qualification pack code for clear identification.
Knowledge and Understanding	Knowledge and Understanding are statements which together as a set specify the technical, generic, professional and organization specific knowledge that an individual needs to possess in order to perform and meet the required standards consistently.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates. It includes elements of operational knowledge

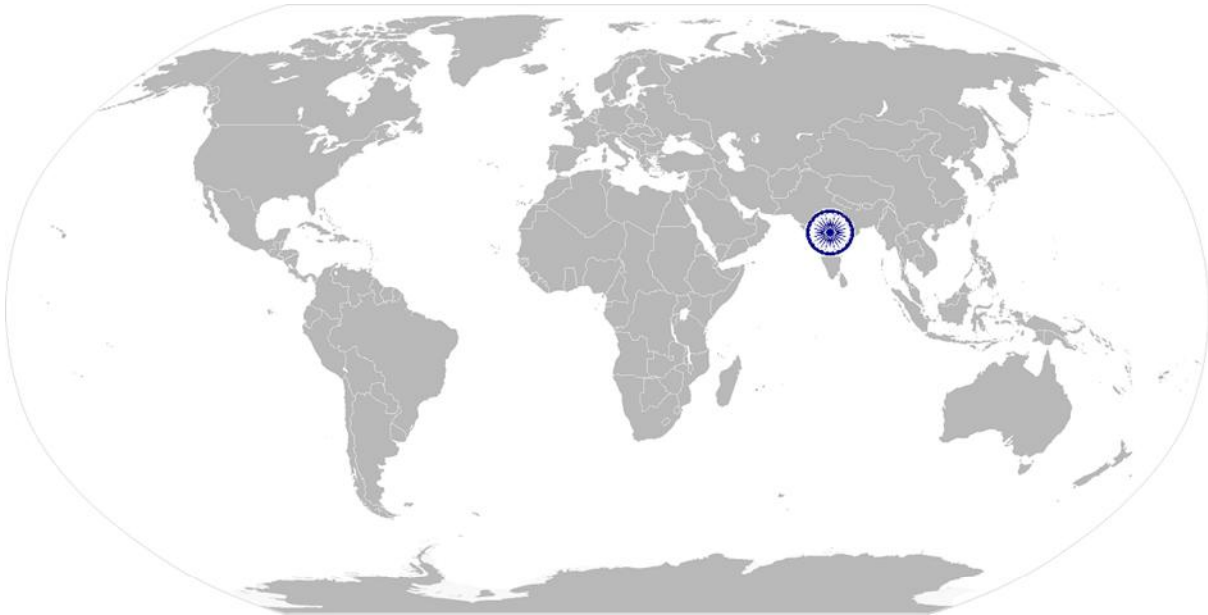


	contents defined in relation to functioning of an organization that a skilled professional need to possess specific to its precise areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific domain knowledge needed to accomplish the task in combination with other competencies. It is usually coined with specifically designated roles and responsibilities.
Core Skills/Generic Skills	Core Skills or Generic Skills as set are group of skills. It is key to working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include mainly communication related skills that are applicable to most job roles.
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Keywords /Terms	Description
SSC	Sector Skill Council
OS	Occupational Standard(s)
NOS	National Occupational Standard(s)
QP	Qualifications Pack
NSQF	National Skill Qualifications Framework
NCO	National Classifications of Occupation
TBD	To Be Determined
HCS	Handicrafts and Carpet Skill Sector Council
NSDC	National Skill Development Corporation
TDS	Total Dissolved Solid
MLR	Material to Liquor Ratio

Acronyms



National Occupational Standard



Overview

This unit is NOS is about operating the Weighing scale, and method of weighing dyes & chemicals with precision to eliminate/minimize causes leading to uneven dyeing and shade variation.



HCS/N5101

Operating the Weighing scale and Weighing of Dyes & Chemicals

National Occupational Standard	Unit Code	HCS/N5101
	Unit Title (Task)	Operating the Weighing scale and Weighing of Dyes & Chemicals
	Description	This unit is about inventory of supervisory skills, knowledge, tools and techniques needed for execution of the task of planning, execution and proper implementation of plan so as to ensure tufted carpets are being produced with specified quality level and delivered as per schedule defined.
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> ▪ Carry out preparatory activities to the operations and/or equipment ▪ Operate the equipment for the specified task as per work order ▪ Clean the machine
	Performance Criteria(PC) w.r.t. the Scope	
	Element	Performance Criteria
	Carrying out preparatory activities to weighing of dyes and chemicals	<p>PC1. Understand the task mentioned in the Job Order received for dyeing.</p> <p>PC2. Understand MSDS (Material Safety Data Sheet) as applicable to dyes and chemicals.</p> <p>PC3. Use proper PPE like “hand gloves” and “nose mask” etc as applicable</p> <p>PC4. Ensure the workplace is well lit and ventilated</p> <p>PC5. Ensure weighing machine with correct resolution is used</p> <p>PC6. Ensure that all weighing scale are calibrated and clean</p> <p>PC7. Where mixers are used, ensure they are clean</p> <p>PC8. Ensure suitable spoon/spatula is used for handling of dyes and chemicals</p> <p>PC9. Check that previously mixed dyes / chemicals are dispensed and dyeing tank is clean</p>
	Activities related to weighing of Dyes & Chemical	<p>PC10. Check the zero setting of weighing balance</p> <p>PC11. Read & understand the dyestuff and chemicals to be weighed</p> <p>PC12. Use correct spoon, spatula and/or correct carrier to pick dyes & chemicals</p> <p>PC13. Check the quantity of dyestuff to be weighed</p> <p>PC14. Weigh all dyestuff separately</p> <p>PC15. Weigh all the chemicals separately</p> <p>PC16. Weigh the bigger quantity first & smaller in the last</p> <p>PC17. Use non-sticky papers for weighing of dyes</p> <p>PC18. Weigh smaller quantity (less than 20 gm) on precision balance</p> <p>PC19. Clean the weighing pan after every use</p> <p>PC20. Check and reconfirm the total weight</p>
	Reporting and Recording of Inspection Results	<p>PC21. Where applicable create batch for dyes and chemicals with suitable lot indication</p> <p>PC22. Record details of batch in log book</p>
	Knowledge and Understanding (K)	



HCS/N5101

Operating the Weighing scale and Weighing of Dyes & Chemicals

A. Organizational Context (Knowledge of the company/ organization and its processes)	<p>KA1. general rules and regulations in a carpet processing section</p> <p>KA2. MSDS about dyes and chemicals</p> <p>KA3. Safe working practices</p> <p>KA4. The process of dyeing and how it is affected by previous processes and how it affects subsequent processes</p> <p>KA5. Basic knowledge about dyes, chemicals and substrates of dyeing</p>
B. Technical Knowledge	<p>Type of fiber, yarn and fabric being processed</p> <p>KB1. Understandings about</p> <ul style="list-style-type: none"> • types of fibres • types of yarn • Yarn thickness, surface characteristics and texture • Chemistry of dyes and chemicals • Process parameters • Machine parameters • Dyeing cycle • types of dyeing defects and their remedy • Fastness of dyes • Measurement/estimation of dye fastness • Tools and equipments used like spoon, coops, beaker, jar, flask, stirrer etc • Precision and accuracy of weighing methods and weighing balance • Control functions on equipment <p>KB2. Rinsing tank and process of injecting/dispensing chemicals and dyestuff solutions at intervals</p> <p>KB3. process flow in handmade carpet manufacturing processing sector</p> <p>KB4. importance of marking/coding/labelling etc followed at various process stages for identification and traceability</p> <p>KB5. importance of cleanliness at workplace</p> <p>KB5. Explain difference between correctable and non-correctable dyeing faults</p> <p>KB6. Acceptable solutions for specific faults identified/detected</p> <p>KB7. Method to make use of the information detailed in specifications and Work instructions</p>
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Write instruction clearly and legibly</p> <p>SA2. prepare status and progress reports</p> <p>SA3. write memos and e-mail to customers, co-workers, and vendors to provide them with work updates and to request appropriate information without English language errors regarding grammar or sentence construct</p>
	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. Read and comprehend written instructions</p> <p>SA5. keep abreast with the latest knowledge by reading brochures, pamphlets, and product information sheets</p>



HCS/N5101

Operating the Weighing scale and Weighing of Dyes & Chemicals

	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. discuss task lists, schedules, and work-loads with co-workers SA7. keep co-workers and supervisors informed about progress SA8. Communicate with supervisor appropriately
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. make decisions pertaining to the concerned area of work
	Plan and Organize
	The user/individual on the job needs to know and understand: SB2. plan and organize service feedback files/documents
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB3. manage relationships with customers SB4. build customer relationships and use customer centric approach
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB5. Apply problem-solving approaches in different situations SB6. Seek clarification on problems from others SB7. think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB8. identify immediate or temporary solutions to resolve delays
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB9. use the existing data to arrive at specific data points
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB10. apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action SB11. Apply good attention to detail SB12. Check work is complete and free from errors

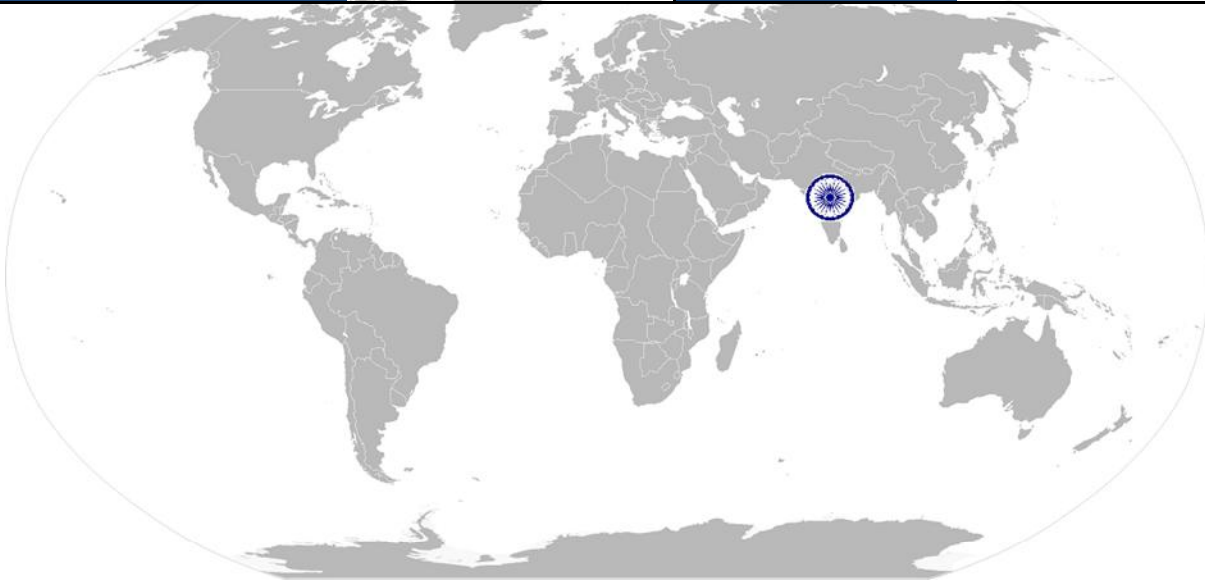


HCS/N5101

Operating the Weighing scale and Weighing of Dyes & Chemicals

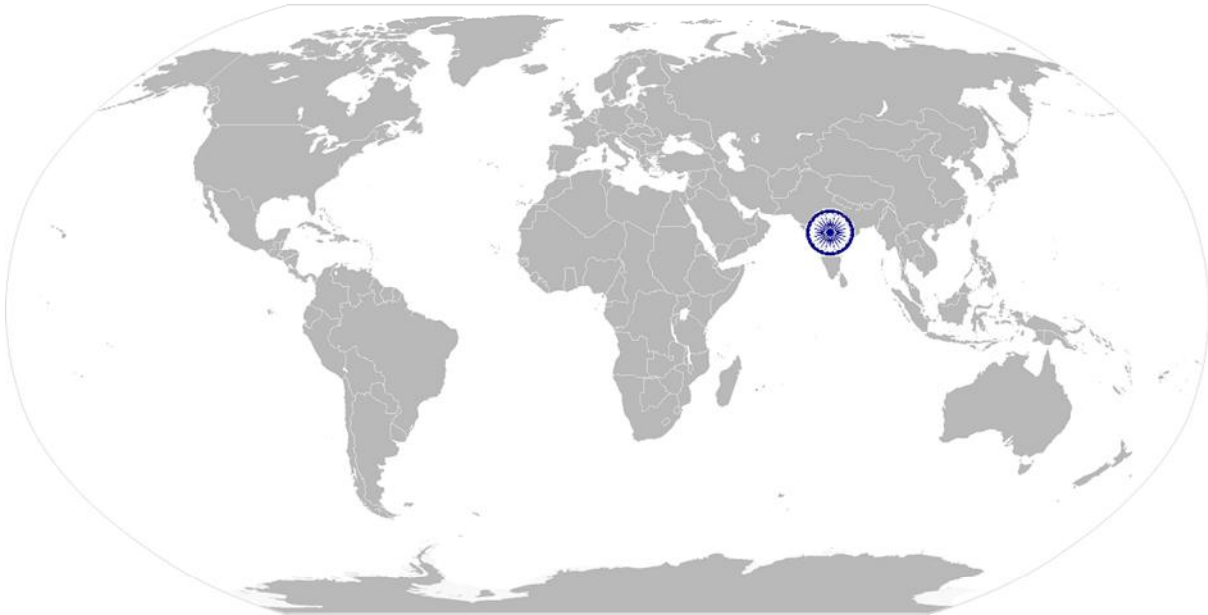
NOS Version Control

NOS Code	HCS/N5101		
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Occupation	Processing	Next review date	26/05/16





National Occupational Standard



Overview

This unit is about Dissolving & Dispensing of Dyestuff, Chemicals & Auxiliaries.



HCS/N5102

Dissolving and Dispensing of Dyes, Chemicals and Auxiliaries

National Occupational Standard	Unit Code	HCS/ N5102
	Unit Title (Task)	Dissolving and Dispensing of Dyes, Chemicals and Auxiliaries
	Description	This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required to dissolve dyestuff, chemicals and dispensing the mixture to assist level dyeing.
	Scope	This unit/task covers the following: Dissolving & Dispensing the dyestuff, chemicals & auxiliaries
	Performance Criteria(PC) w.r.t. the Scope	
	Element	Performance Criteria
	Dissolving & Dispensing of Dyestuff and Chemicals	<p>PC1. Take a little amount of water with/without a small amount of wetting agent</p> <p>PC2. Add first a small amount of dyestuff and make paste</p> <p>PC3. Dilute with required amount of water and dilute while stirring continuously</p> <p>PC4. Add amount of chemicals and auxiliaries and stir to mix well</p> <p>PC5. Take the required quantity of water in tank</p> <p>PC6. Heat it up to the specified mixing temp</p> <p>PC7. Pour the solution prepared with weighed dyestuff, chemicals & auxiliaries slowly into the tank while stirring</p> <p>PC8. Avoid dusting or splashing of dyes & chemicals while preparing solution</p> <p>PC9. Dispense the solution of dissolved dyes with chemicals & auxiliaries to the machine tanks at regular intervals at defined installment</p> <p>PC10. Flush the line after every dispensing</p>
	Knowledge and Understanding (K)	
	A. Organizational Context (Knowledge of the company / organization and its processes)	<p>KA1. Safe working practices and organizational procedures</p> <p>KA2. Limits of your own responsibility</p> <p>KA3. Ways of resolving problems within the work area</p> <p>KA4. The effect of the process of dissolution and dispensing on the whole process manufacturing processes</p> <p>KA5. The importance of effective communication with supervisors</p> <p>KA6. The approved lines of communication, authority and reporting procedures</p> <p>KA7. The organization's rules, codes and guidelines (including timekeeping)</p> <p>KA8. The company's quality standards</p> <p>KA9. The importance of complying with written instructions</p>



HCS/N5102

Dissolving and Dispensing of Dyes, Chemicals and Auxiliaries

<p>B. Technical Knowledge</p>	<p>KB1. Role of Wetting agent KB2. Dyeing defects due poor dissolution and improper dispensation KB3. Checking of proper dissolution of dyestuffs KB4. Purpose of Dispensing in installment KB5. Process of dyeing KB6. Understanding about <ul style="list-style-type: none"> ▪ Chemistry of colour ▪ Additive and Subtractive colour mixture KB7. Techniques and Technology of dyeing of cellulosic, synthetic and proteinous materials KB8. Safe working practices for house keeping</p>
<p>Skills (S) [Optional]</p>	
<p>A. Core Skills/ Generic Skills</p>	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. prepare status and progress reports SA2. write memos and e-mail to customers, co-workers, and vendors to provide them with work updates and to request appropriate information without English language errors regarding grammar or sentence construct</p> <p>Reading Skills</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. keep abreast with the latest knowledge by reading brochures, pamphlets, and product information sheets</p>
	<p>Oral Communication (Listening and Speaking skills)</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. discuss task lists, schedules, and work-loads with co-workers SA5. keep co-workers and supervisors informed about progress</p>
<p>B. Professional Skills</p>	<p>Decision Making</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. make decisions pertaining to the concerned area of work</p> <p>Plan and Organize</p> <p>The user/individual on the job needs to know and understand:</p> <p>SB2. Plan and manage work in line with company procedure and priority SB3. plan and organize service feedback files/documents</p> <p>Customer Centricity</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. manage relationships with customers</p>



HCS/N5102

Dissolving and Dispensing of Dyes, Chemicals and Auxiliaries

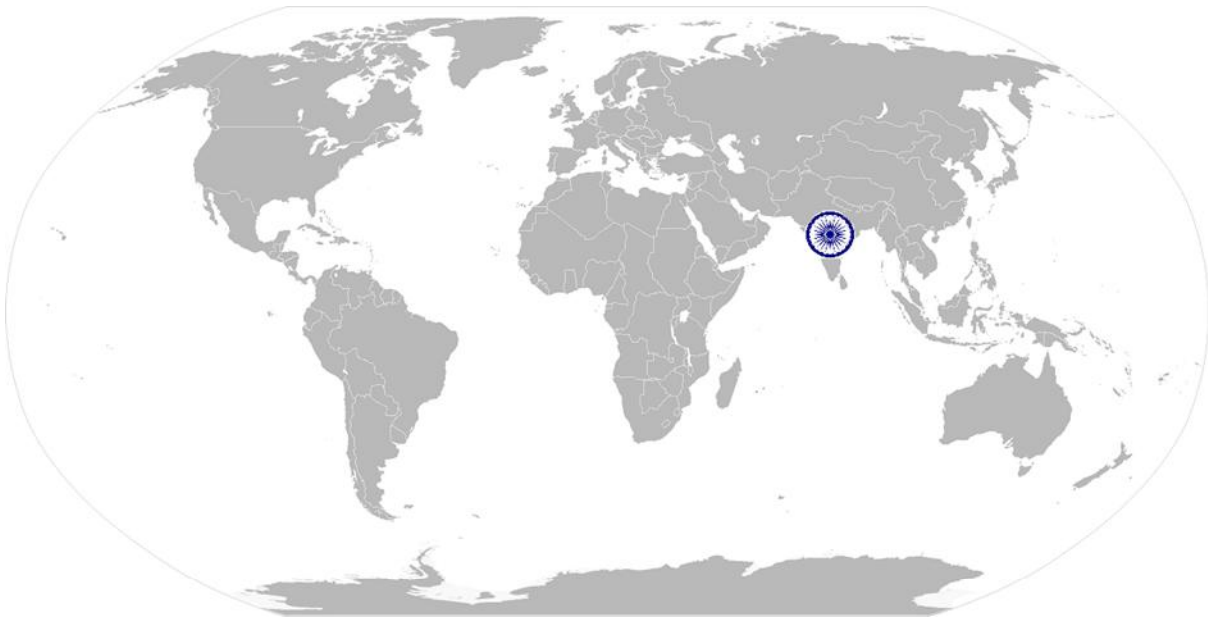
	SB5. build customer relationships and use customer centric approach
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB6. think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB7. identify immediate or temporary solutions to resolve delays
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB8. use the existing data to arrive at specific data points
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB9. apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action

NOS Version Control

NOS Code	HCS/N5102		
Credits (NSQF)	TBD	Version number	1.0
Industry	Handicrafts and Carpet	Drafted on	30/04/15
Industry Sub-sector	Carpet	Last reviewed on	27/05/15
Occupation	Processing	Next review date	26/05/16



National Occupational Standard



Overview

This unit is about developing dyeing recipe for dyeing of cellulosic, protein and synthetic yarns in hank form.



HCS/N5103

Developing Recipe for dyeing of textile materials

National Occupational Standard

Unit Code	HCS/N5103
Unit Title (Task)	Developing Recipe for dyeing of textile materials
Description	This unit provides performance criteria, knowledge & understanding and skills & abilities required to develop dyeing recipe for dyeing of textile materials.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Recipe for dyeing of cellulosic origins e.g. cotton and viscose • Recipe for dyeing of synthetic origins e.g. polyester, polypropylene etc • Recipe for dyeing of protein origins e.g. wool, silk etc.
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Developing Recipe for Dyeing	<p>PC1. Can identify textiles materials for broad class of origins – cellulosic, protein , synthetic</p> <p>PC2. Can identify substantive dye class as per textile material class</p> <p>PC3. Can identify dye class with suitable colour fastness and other parameters</p> <p>PC4. Can describe Techniques and technology of dyeing of different textile materials</p> <p>PC5. Can identify hues and tones of coloured textile materials</p> <p>PC6. Can dissolve dyes to prepare dye solution</p> <p>PC7. Can define dyeing process cycle with complete steps of dyeing</p> <p>PC8. Operate Lab dip machine or suitable method for developing dyeing recipe</p> <p>PC9. store equipment safely after use</p> <p>PC10. maintain clean and hazard free working area</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	<p>KA1. personal hygiene and duty of care</p> <p>KA2. safe working practices and organizational procedures</p> <p>KA3. ways of resolving conflicts/problems within the work area</p> <p>KA4. the production process and the specific work activities that relate to the whole process</p> <p>KA5. organization's rules, codes and guidelines (including timekeeping)</p> <p>KA6. the company's quality standards</p> <p>KA7. importance of complying with written instructions</p>
B. Technical /Domain Knowledge	<p>KB1. Chemistry of dye class and affinity</p> <p>KB2. Chemistry of various textile materials</p> <p>KB3. MSDS of Dyes and Chemicals</p> <p>KB4. Water quality parameters like TDS, TSS, pH, etc</p> <p>KB5. Effect of MLR on overall dyeing process</p> <p>KB6. Physical and chemicals Parameters affecting process of dyeing</p> <p>KB7. Monitoring and control of parameters</p> <p>KB8. Dyeing programme and dyeing cycle</p> <p>KB9. Techniques and purpose of rinsing, washing etc</p> <p>KB10. Fastness of Dyes e.g. Washing, Rubbing, Light etc</p> <p>KB11. Measurement of colour fastness</p> <p>KB12. Operation and Control of Hank Dyeing Machine</p>



HCS/N5103

Developing Recipe for dyeing of textile materials

	<p>KB13. Work instructions related to dyeing and ability to interpret them accurately</p> <p>KB14. relation between work role and the overall manufacturing process</p> <p>KB15. Hazards likely to be encountered when carrying the process</p> <p>KB16. safe working practices</p> <p>KB17. common faults with equipment and the method to rectify</p>
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SA1. prepare status and progress reports SA2. write memos and e-mail to customers, co-workers, and vendors to provide them with work updates and to request appropriate information without English language errors regarding grammar or sentence construct
	Reading Skills
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SA3. keep abreast with the latest knowledge by reading brochures, pamphlets, and product information sheets
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SA4. discuss task lists, schedules, and work loads with co-workers SA5. keep co-workers and supervisors informed about progress
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SB1. make decisions pertaining to the concerned area of work
	Plan and Organize
	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> SB2. plan and organize service feedback files/documents SB3. plan and manage work routine based on company procedure
	Customer Centricity
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SB4. manage relationships with customers SB5. build customer relationships and use customer centric approach
	Problem Solving
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SB6. think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB7. identify immediate or temporary solutions to resolve delays
	Analytical Thinking



HCS/N5103

Developing Recipe for dyeing of textile materials

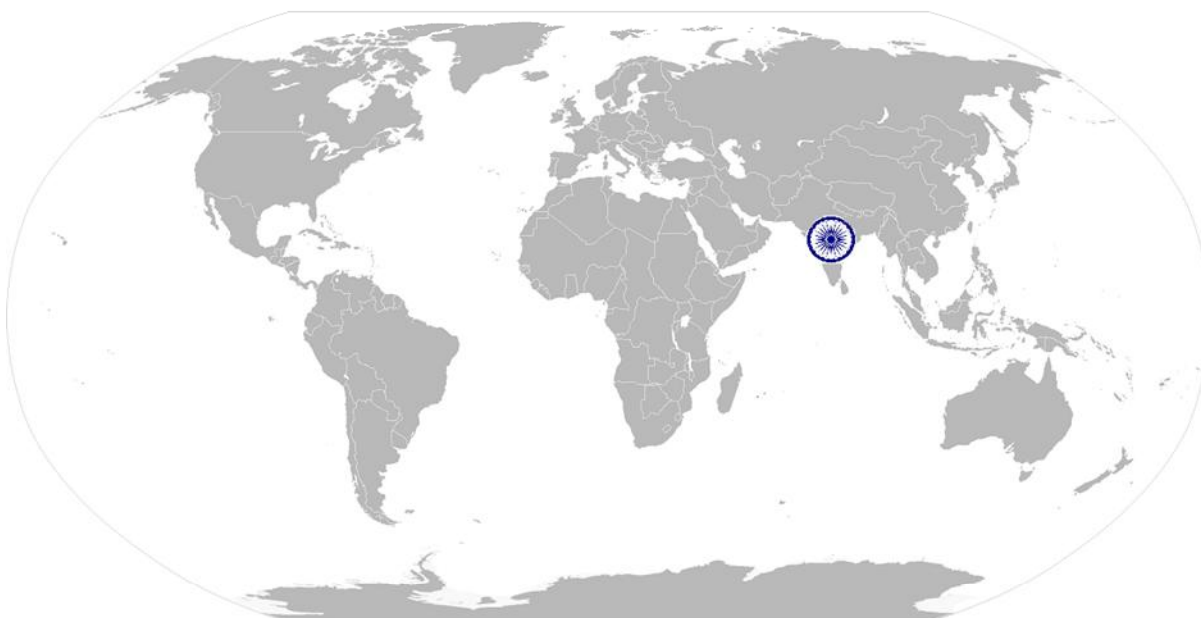
	The user/individual on the job needs to know and understand how to: SB8. use the existing data to arrive at specific data points SB9. solve operational role related to issues
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB10. apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action

NOS Version Control

NOS Code	HCS/N5103		
Credits (NSQF)	TBD	Version number	1.0
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National Occupational Standard



Overview

This unit is about maintaining work areas and activities to ensure tools and machines are maintained as per norms.



HCS/N9906

Maintaining work area, tools and machines

National Occupational Standard	Unit Code	HCS/N9906
	Unit Title (Task)	Maintaining work area, tools and machines
	Description	This unit provides performance criteria, knowledge & understanding and skills & abilities required to organize/maintain work areas and activities to ensure tools and machines are maintained as per norms
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Proper maintaining of work area and activities • Maintenance of work related handtools and equipments
	Performance Criteria(PC) w.r.t. the Scope	
	Element	Performance Criteria
	Maintain the work area, tools and machines	PC1. Handle materials, reeling machine and tools with care PC2. Maintain clean and hazard free working area PC3. Use clean machine and methods appropriate for the work to be carried out PC4. Dispose of waste safely in the designated location PC5. Keep machine safely after away from reach of children after use
	Knowledge and Understanding (K)	
	A. Organizational Context (Knowledge of the company / organization and its processes)	KA1. Personal hygiene and duty of care KA2. Safe working practices KA3. Effective communication with superiors KA4. The company's quality standards KA5. Importance of complying with written instructions
	B. Technical Knowledge	KB1. Work instructions and ability to interpret them accurately KB2. Relation between work role and the overall manufacturing process KB3. Hazards likely to be encountered when carrying out the process KB4. Maintenance procedures KB5. Safe working practices for maintenance KB6. Effects of contamination on products i.e. machine oil, dirt, foreign materials
Skills (S) [Optional]		
A. Core Skills/ Generic Skills	Writing Skills The user/ individual on the job needs to know and understand how to: SA1. prepare status and progress reports SA2. write memos and e-mail to co-workers, and vendors to provide them with work updates and to request appropriate information without English language errors regarding grammar or sentence construct	
	Reading Skills The user/individual on the job needs to know and understand how to: SA3. keep abreast with the latest knowledge by reading brochures, pamphlets, and	



HCS/N9906

Maintaining work area, tools and machines

	product information sheets
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. discuss task lists, schedules, and work-loads with co-workers SA5. keep coworker and supervisor informed about progress
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. make decisions pertaining to the concerned area of work
	Plan and Organize
	The user/individual on the job needs to know and understand: SB2. plan and manage work routine based on company procedure SB3. plan and organize service feedback files/documents
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB4. manage relationships with customers SB5. build customer relationships and use customer centric approach
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB6. think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB7. identify immediate or temporary solutions to resolve delays
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB8. use the existing data to arrive at specific data points
Critical Thinking	
The user/individual on the job needs to know and understand how to: SB9. apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action	

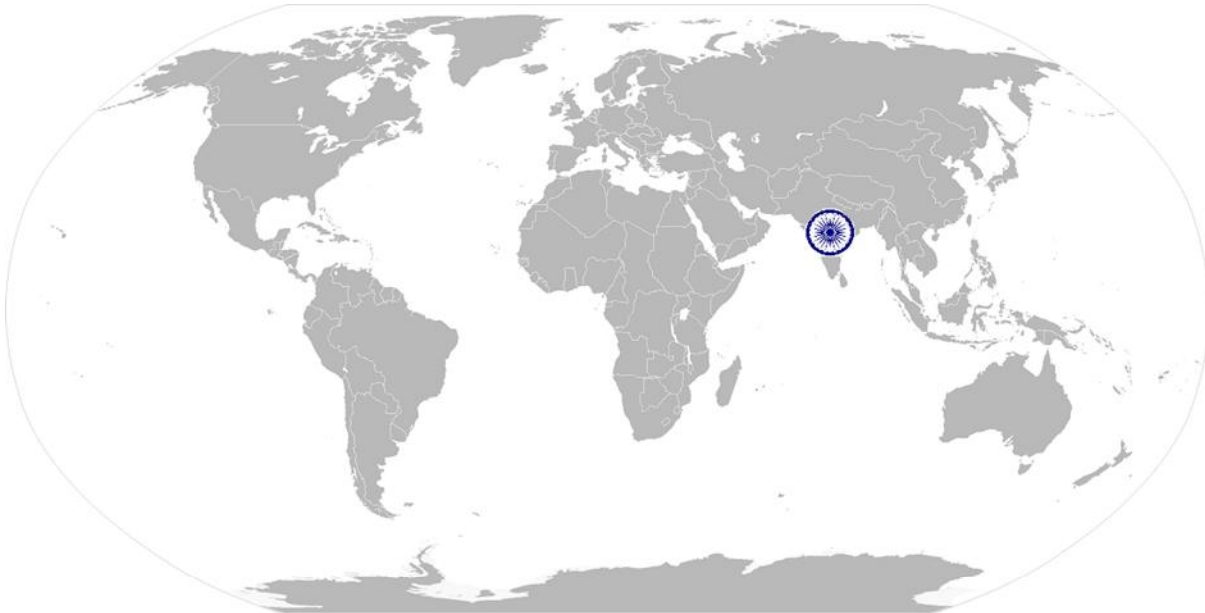


HCS/N9906

Maintaining work area, tools and machines

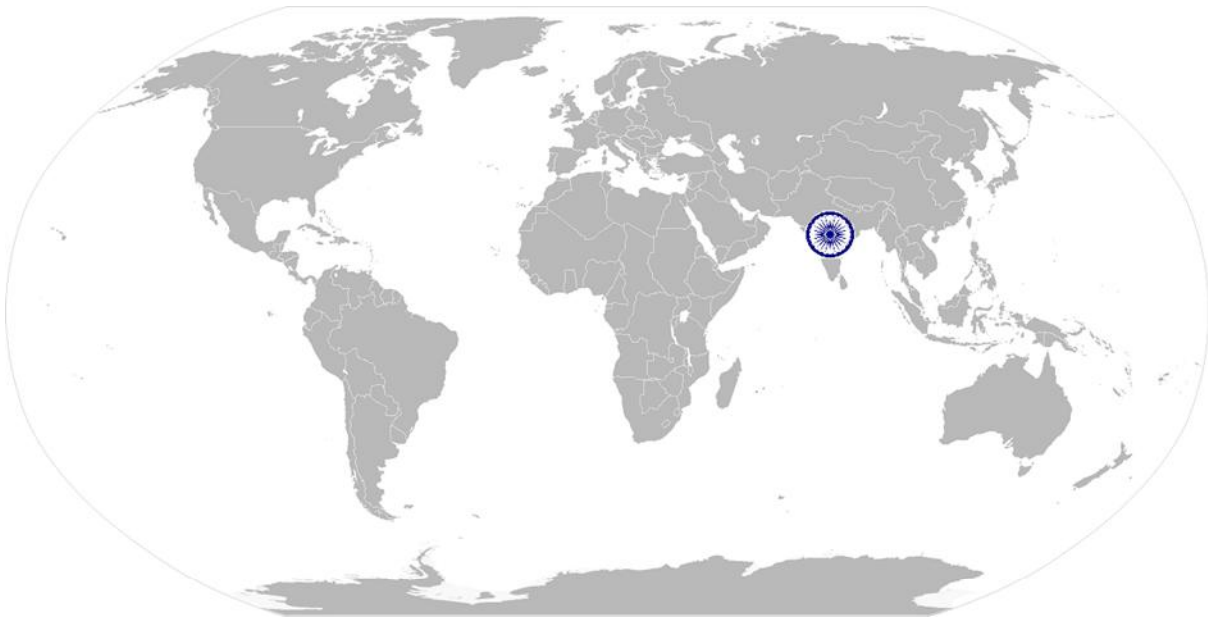
NOS Version Control

NOS Code	HCS/N9906		
Credits (NSQF)	TBD	Version number	1.0
Industry	Handicrafts and Carpet	Drafted on	30/04/15
Industry Sub-sector	Carpet	Last reviewed on	27/05/15
Occupation	Processing	Next review date	26/05/16





National Occupational Standard



Overview

This unit is about working as part of a team in the process.



HCS/N9908

Working in a team

National Occupational Standard	Unit Code	HCS/ N9908
	Unit Title (Task)	Working in a team
	Description	This unit is about working as a team member in the role of carpet hand operated loom weaver
	Scope	<ul style="list-style-type: none"> • Commitment and trust • Communication • Adaptability • Creative freedom
	Performance Criteria(PC) w.r.t. the Scope	
	Element	Performance Criteria
	Commitment and trust	PC1. Be accountable to one's own role in whole process PC2. Perform all roles with full responsibility PC3. Be effective and efficient at workplace
	Communication	PC4. Properly communicate about company policies PC5. Talk politely with other team members and colleagues
	Adaptability	PC6. Adjust in different work situations PC7. Give due importance to others' point of view PC8. Avoid conflicting situations
	Creative freedom	PC9. Develop new ideas for work procedures PC10. Improve upon the existing techniques to increase process efficiency
Knowledge and Understanding (K)		
A. Organizational Context (Knowledge of the company / organization and its processes)	KA1. General rules and regulations in a carpet sector KA2. Procedure followed to get the final output KA3. Safe working practices to be adopted KA4. Reporting to the supervisor or higher authority about any grievances faced	



HCS/N9908

Working in a team

B. Technical Knowledge	KB1. Understanding the importance of the previous and next step of the process KB2. Process flow in a carpet manufacturing KB3. Material sequence of flow KB4. Functions of different parts of carpet hand operated loom KB5. Tools and equipments used KB6. Guidelines for operating the hand operated loom KB7. Safety procedures to be followed in hand operated loom
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Writing Skills
	SA1. Write instructions in local language SA2. Write daily work report SA3. Write grievance complaint application
	Reading Skills
	SA4. Read and comprehend written instructions
	Oral Communication (Listening and Speaking skills)
	SA5. Communicate with superiors appropriately SA6. Talk to workers to convey information effectively
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. make decisions pertaining to the concerned area of work
	Plan and Organize
	The user/individual on the job needs to know and understand: SB2. plan and organize service feedback files/documents
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB3. manage relationships with customers SB4. build customer relationships and use customer centric approach
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB5. think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB6. deal with clients lacking the technical background to solve the problem on their own SB7. identify immediate or temporary solutions to resolve delays
Analytical Thinking	



HCS/N9908

Working in a team

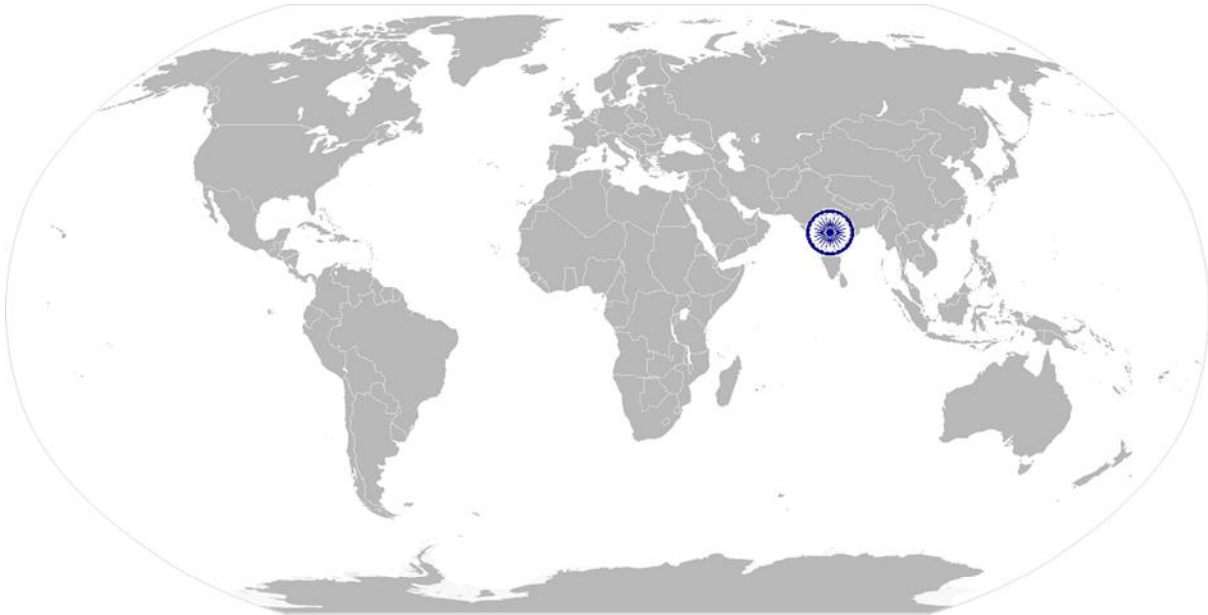
	The user/individual on the job needs to know and understand how to: SB8. use the existing data to arrive at specific data points
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB9. apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action

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National Occupational Standard



Overview

This unit is about maintaining work areas and activities to ensure tools and machines are maintained as per norms.



HCS/ N9907

Maintain health, safety and security at work place

National Occupational Standard	Unit Code	HCS/ N9907
	Unit Title (Task)	Maintain health, safety and security at work place
	Description	This unit provides performance criteria, knowledge & understanding and skills & abilities required to comply with health, safety and security requirements at the workplace and covers procedures to prevent, control and minimize risk to self and others.
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> To comply with health, safety and security requirements at work
	Performance Criteria(PC) w.r.t. the Scope	
	Element	Performance Criteria
	Comply with health, Safety and security requirements at work	<p>PC1. Comply with health and safety related instructions applicable to the workplace</p> <p>PC2. Use and maintain personal protective equipment such as “Nose Mask” etc. as per protocol</p> <p>PC3. Carry out own activities in line with approved guidelines and procedures</p> <p>PC4. Maintain a healthy lifestyle and guard against dependency on intoxicants</p> <p>PC5. Follow environment management system related procedures</p> <p>PC6. Identify and correct (if possible) malfunctions in machinery and equipment</p> <p>PC7. Report any service malfunctions that cannot be rectified</p> <p>PC8. Store materials and equipment in line with organisational requirements</p> <p>PC9. Safely handle and remove waste</p> <p>PC10. Minimize health and safety risks to self and others due to own actions</p> <p>PC11. Seek clarifications, from supervisors or other authorized personnel in case of perceived risks</p> <p>PC12. Monitor the workplace and work processes for potential risks and threat</p> <p>PC13. Carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned</p> <p>PC14. Report hazards and potential risks/threats to supervisors or other authorized personnel</p> <p>PC15. Participate in mock drills/ evacuation procedures organized at the workplace</p> <p>PC16. Undertake first aid, fire-fighting and emergency response training, if asked to do so</p> <p>PC17. Take action based on instructions in the event of fire, emergencies or accidents</p> <p>PC18. Follow organisation procedures for shutdown and evacuation when required</p>
	Knowledge and Understanding (K)	
	A. Organizational Context (Knowledge of the company /	<p>KA1. Health and safety related practices applicable at the workplace</p> <p>KA2. Potential hazards, risks and threats based on nature of operations</p> <p>KA3. Organizational procedures for safe handling of equipment and machine operations</p> <p>KA4. Potential risks due to own actions and methods to minimize them</p>



HCS/ N9907

Maintain health, safety and security at work place

organization and its processes)	<p>KA5. Environmental management system related procedures at the workplace</p> <p>KA6. Layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points</p> <p>KA7. Potential accidents and emergencies and response to these scenarios</p> <p>KA8. Reporting protocol and documentation required</p> <p>KA9. Details of personnel trained in first aid, fire-fighting and emergency response</p> <p>KA10. Actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire</p>
B. Technical Knowledge	<p>KB1. Occupational health and safety risks and methods</p> <p>KB2. Personal protective equipment and method of use</p> <p>KB3. Identification, handling and storage of hazardous substances</p> <p>KB4. Proper disposal system for waste and by-products</p> <p>KB5. Signage related to health and safety and their meaning</p> <p>KB6. Importance of sound health, hygiene and good habits</p> <p>KB7. Ill-effects of alcohol, tobacco and drugs</p>
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. prepare status and progress reports</p> <p>SA2. write memos and e-mail to co-workers and vendors to provide them with work updates and to request appropriate information without English language errors regarding grammar or sentence construct</p>
	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. keep abreast with the latest knowledge by reading brochures, pamphlets, and product information sheets</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. discuss task lists, schedules, and work-loads with co-workers</p> <p>SA2. keep coworker and supervisor informed about progress</p>
B. Professional Skills	Decision Making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. make decisions pertaining to the concerned area of work</p>
	Plan and Organize
	<p>The user/individual on the job needs to know and understand:</p> <p>SB2. plan and organize service feedback files/documents</p>
	Customer Centricity
<p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. manage relationships with customers</p>	



HCS/ N9907

Maintain health, safety and security at work place

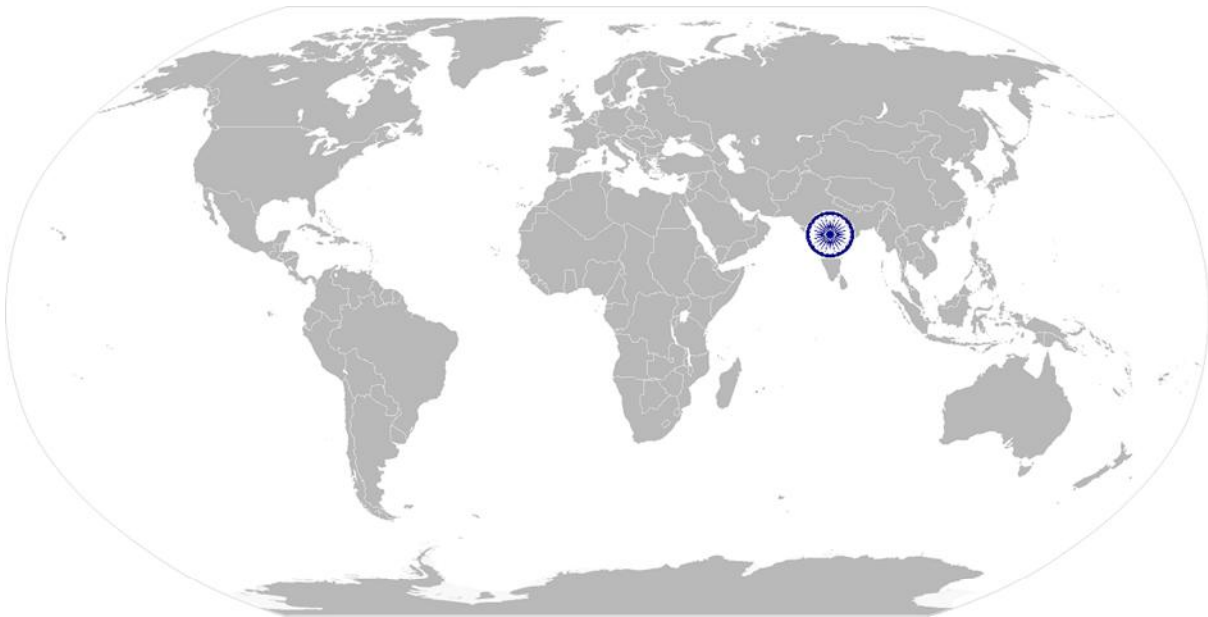
	SB4. build customer relationships and use customer centric approach
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB5. think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB6. identify immediate or temporary solutions to resolve delays
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB7. use the existing data to arrive at specific data points
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB8. apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action

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National Occupational Standard



Overview

This unit covers performance criteria, knowledge & understanding and skills abilities required to comply with legal and organization requirements.



HCS/N9909

Comply with industry and organizational requirements

National Occupational Standard	Unit Code	HCS/N9909
	Unit Title (Task)	Comply with industry and organizational requirements
	Description	This unit is about knowing, understanding, and complying with the requirements of the organization and carpet industry
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> To Comply with legal and organizational requirements
	Performance Criteria(PC) w.r.t. the Scope	
	Element	Performance Criteria
	Comply with legal and ethical requirements	<p>PC1. Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures</p> <p>PC2. Seek and obtain clarifications on policies and procedures, from your supervisor or other authorized personnel</p> <p>PC3. Apply and follow these policies and procedures within your work practices</p> <p>PC4. Provide support to your supervisor and team members in enforcing these considerations</p> <p>PC5. Identify and report any possible deviation to these requirements</p>
	Knowledge and Understanding (K)	
	A. Organizational Context (Knowledge of the company / organization and its processes)	<p>KA1. The importance of having an ethical and value-based approach</p> <p>KA2. Benefits to your company and yourself due to practice of these procedures</p> <p>KA3. The importance of punctuality and attendance</p> <p>KA4. Specific to the industry/sector, know and understand: <ul style="list-style-type: none"> Legal and ethical requirements Procedures to follow if someone does not meet the requirements </p> <p>KA5. Customer specific requirements mandated as a part of your work process</p>
	B. Technical Knowledge	<p>KB1. Customer specific regulations and their importance</p> <p>KB2. Reporting procedure in case of deviations</p> <p>KB3. Limits of personal responsibility</p>
Skills (S) [Optional]		
A. Core Skills/ Generic Skills	Writing Skills	



HCS/N9909

Comply with industry and organizational requirements

	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. prepare status and progress reports</p> <p>SA2. write memos and e-mail to co-workers, and vendors to provide them with work updates and to request appropriate information without English language errors regarding grammar or sentence construct</p>
	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. keep abreast with the latest knowledge by reading brochures, pamphlets, and product information sheets</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. discuss task lists, schedules, and work-loads with co-workers</p> <p>SA5. keep coworker and supervisor informed about progress</p>
B. Professional Skills	Decision Making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. make decisions pertaining to the concerned area of work</p>
	Plan and Organize
	<p>The user/individual on the job needs to know and understand:</p> <p>SB2. plan and organize service feedback files/documents</p>
	Customer Centricity
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. manage relationships with customers</p> <p>SB4. build customer relationships and use customer centric approach</p>
	Problem Solving
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s)</p> <p>SB6. identify immediate or temporary solutions to resolve delays</p>
	Analytical Thinking
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. use the existing data to arrive at specific data points</p>
	Critical Thinking
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB8. apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action</p>

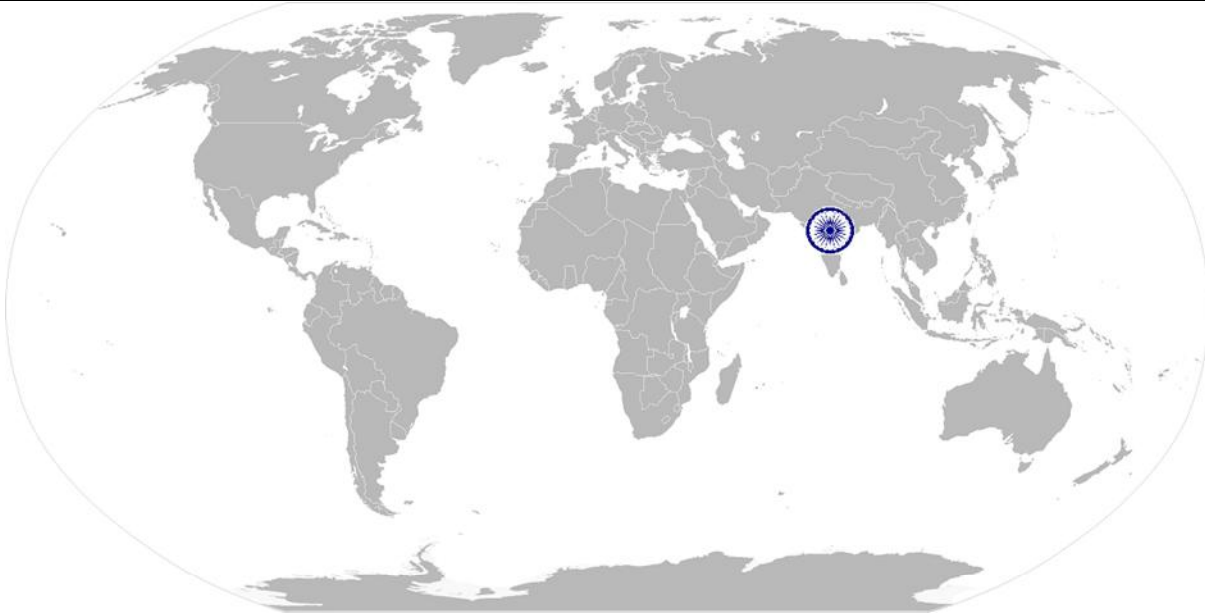


HCS/N9909

Comply with industry and organizational requirements

NOS Version Control

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CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Dyer

Qualification Pack HCS/Q5101

Sector Skill Council Handicrafts and Carpet

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

		Marks Allocation			
		Total Mark (400+100)	Out Of	Theory	Skills Practical
1. HCS/N5101- Operating the Weighing scale and Weighing of Dyes & Chemicals	PC1. Understand the task mentioned in the Job Order received for dyeing.	75	5	0	5
	PC2. Understand MSDS (Material Safety Data Sheet) as applicable to dyes and chemicals.		5	2	3
	PC3. Use proper PPE like "hand gloves" and "nose mask" etc as applicable		2	0	2
	PC4. Ensure the workplace is well lit and ventilated		2	0	2
	PC5. Ensure weighing machine with correct resolution is used		3	1	2



PC6. Ensure that all weighing scale are calibrated and clean	2	0	2
PC7. Where mixers are used, ensure they are clean	1	0	1
PC8. Ensure suitable spoon/spatula is used for handling of dyes and chemicals	1	0	1
PC9. Check that previously mixed dyes / chemicals are dispensed and dyeing tank is clean	0		
PC10. Check the zero setting of weighing balance	5	0	5
PC11. Read & understand the dyestuff and chemicals to be weighed	10	5	5
PC12. Use correct spoon, spatula and/or correct carrier to pick dyes & chemicals	5	2	3
PC13. Check the quantity of dyestuff to be weighed	3	1	2
PC14. Weigh all dyestuff separately	3	1	2
PC15. Weigh all the chemicals separately	5	2	3
PC16. Weigh the bigger quantity first & smaller in the last	3	1	2
PC17. Use non-sticky papers for weighing of dyes	4	1	3
PC18. Weigh smaller quantity (less than 20 gm) on precision balance	3	1	2



	PC19. Clean the weighing pan after every use		3	1	2
	PC20. Check and reconfirm the total weight		3	0	3
	PC21. Where applicable create batch for dyes and chemicals with suitable lot indication		5	2	3
	PC22. Record details of batch in log book		2	0	2
		Total	75	20	55
2. HCS/N5102 - Dissolving and Dispensing of Dyes, Chemicals and Auxiliaries	PC1. Take a little amount of water with/without a small amount of wetting agent	25	3	1	2
	PC2. Add first a small amount of dyestuff and make paste		1	0	1
	PC3. Dilute with required amount of water and dilute while stirring continuously		3	1	2
	PC4. Add amount of chemicals and auxiliaries and stir to mix well		2	0	2
	PC5. Take the required quantity of water in tank		2	0	2
	PC6. Heat it up to the specified mixing temp		1	0	1
	PC7. Pour the solution prepared with weighed dyestuff, chemicals & auxiliaries slowly into the tank while stirring		3	1	2
	PC8. Avoid dusting or splashing of dyes & chemicals while preparing solution		3	1	2



	PC9. Dispense the solution of dissolved dyes with chemicals & auxiliaries to the machine tanks at regular intervals at defined installment		5	2	3
	PC10. Flush the line after every dispensing		2	0	2
		Total	25	6	19
3. HCS/N5103 - Developing Recipe for Dyeing of Textile Materials	PC1. Can identify textiles materials for broad class of origins – cellulosic, protein , synthetic	100	15	5	10
	PC2. Can identify substantive dye class as per textile material types		17	5	12
	PC3. Can identify dye class with suitable colour fastness and other paramters		8	3	5
	PC4. Can describe Techniques and technology of dyeing of different textile materials		10	8	2
	PC5. Can identify hues and tones of coloured textile materials		7	2	5
	PC6. Can dissolve dyes to prepare dye soluution		3	1	2
	PC7. Can define dyeing process cycle with complete steps of dyeing		16	12	4
	PC8. Operate Lab dip machine or suitable method for developing dyeing recipe		16	4	12
	PC9. Store equipment safely after use		2	0	2
	PC10. maintain clean and hazard free working area		6	2	4
			100	42	58



4. HCS/N9906 - Maintain workarea, tools and machines	PC1. handle materials, machinery, equipment and tools with care and use them in correct way	50	13	5	8
	PC2. Use correct lifting and handling procedures		5	2	3
	PC3. maintain clean and hazard free working area		5	2	3
	PC4. carry out running maintenance of within agreed schedules		5	2	3
	PC5. carry out maintenance and/or cleaning within one's responsibility		5	2	3
	PC6. report unsafe equipment and other dangerous occurrences		5	2	3
	PC7. use clean equipment and methods appropriate for the work to be carried out		2	2	0
	PC8. dispose of waste safely in the designated location		5	2	3
	PC9. store equipment safely after use		5	2	3
			Total	50	21
5. HCS/N9908 - Working in a team	PC1. Be responsible for one's own action and role	50	5	2	3
	PC2. Perform all roles with full commitment		2	2	0
	PC3. Be effective and efficient at workplace		5	2	3
	PC4. Communicate effectively about company policies and expectations		5	2	3
	PC5. Report problems faced during the process		4	1	3



	PC6. Talk politely with team members, sub-ordinates, superiors and colleagues		4	1	3
	PC7. Adapt to different work situations		3	1	2
	PC8. Give due importance to others' point of view		3	1	2
	PC9. Avoid conflicting situations		4	1	3
	PC10. Collaborate with colleagues performing the pre-required and post-required tasks as extra from defined span of tasks		4	1	3
	PC11. Develop new and innovative ideas enriching task performance		5	2	3
	PC12. Improve upon the existing process and techniques to increase process efficiency		6	2	4
		Total	50	18	32
6. HCS/N9907 - Maintain Health, Safety and Security at Workplace	PC1. Comply with health and safety related instructions applicable to the workplace	75	4	1	3
	PC2. Use and maintain personal protective equipment such as "Nose Mask" etc. as per protocol		3	1	2
	PC3. Carry out own activities in line with approved guidelines and procedures		5	2	3
	PC4. Maintain a healthy lifestyle and guard against dependency on intoxicants		3	1	2



PC5. Follow environment management system related procedures	3	1	2
PC6. Identify and correct (if possible) malfunctions in machinery and equipment	3	1	2
PC7. Report any service malfunctions that cannot be rectified	3	1	2
PC8. Store materials and equipment in line with organisational requirements	4	1	3
PC9. Safely handle and remove waste	4	1	3
PC10. Minimize health and safety risks to self and others due to own actions	4	1	3
PC11. Seek clarifications, from supervisors or other authorized personnel in case of perceived risks	4	2	2
PC12. Monitor the workplace and work processes for potential risks and threat	8	2	6
PC13. Carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned	5	1	4
PC14. Report hazards and potential risks/threats to supervisors or other authorized personnel	5	2	3
PC15. Participate in mock drills/ evacuation procedures organized at the workplace	6	2	4



	PC16. Undertake first aid, fire-fighting and emergency response training, if asked to do so		2	0	2
	PC17. Take action based on instructions in the event of fire, emergencies or accidents		3	0	3
	PC18. Follow organisation procedures for shutdown and evacuation when required		6	2	4
		Total	75	22	53
7. HCS/N9909 - Comply with industry and organizational requirement	PC1. Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures	25	7	2	5
	PC2. Seek and obtain clarifications on policies and procedures, from your supervisor or other authorized personnel		6	1	5
	PC3. Apply and follow these policies and procedures within your work practices		4	0	4
	PC4. Provide support to your supervisor and team members in enforcing these considerations		4	1	3
	PC5. Identify and report any possible deviation to these requirements		4	1	3
			Total	25	5